Indonesian Journal of Business Analytics (IJBA)
Vol.3, No.06, 2023: 2105-2116

Trading Volume Activity, January Effect, and Stock Splits on Stock Market Returns

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A R T I C L E I N F O

Keywords: January Effect, Stock Market Return, Stock Split, Trading Volume Activity

Received : 06, October
Revised : 10, November
Accepted: 15, December

A B S T R A C T

This study aims to explore and assess the correlation between Trading Volume Activity, Stock Splits, and the January Effect on Stock Market Returns. The study was carried out at technology sector companies listed on the Indonesia Stock Exchange (IDX). Nineteen sets of firm data were selected for analysis, each consisting of observations covering two years. The process of choosing data employed a purposive sampling technique, which involved the application of three specific criteria. The data underwent examination using Partial Least Squares Structural Equation Modeling (PLS-SEM) technique with SmartPLS 3.2.9 application. The study's findings indicate no significant connection between trading volume activity on stock market returns. However, it is observed that stock splits and the occurrence of January affect the impact on stock market returns.

INTRODUCTION

DOI: https://doi.org/10.55927/ijba.v3i6.5840
ISSN-E: 2808-0718
https://journal.formosapublisher.org/index.php/ijba

Indonesia's Economic Recovery After the COVID-19 pandemic, the government's primary focus has been stabilizing the community's economy. Throughout 2021 and 2022, news about the recession-related economic crisis, inflation, and even the energy crisis remained a hot topic. The Indonesian Central Securities Depository (KSEI) recorded the number of investors in December 2021 at 7.49 million; in December 2022, it reached 10.3 million, which means that the number of investors increased by 37.53%. Economic uncertainty has changed people's behavior, especially in economic aspects, because people's needs continue to increase.

The community began to be more active and selective in increasing income, especially in the type of investment to be made. Investment in buying and selling shares in the capital market is an alternative for the community to prepare long-term finances for the future. Public awareness of the importance of providing long-term funds requires the public to enter the world of capital markets, where the community as investors is the party that issues funds for investment, and the company as an issuer is the party that manages the fund.

Investors use capital market facilities to benefit from companies whose income grows annually. Investors must assess the shares they invest in and the risk and return they will receive if they buy them. Investors enter the stock market after assessing positive information that has been confirmed. Return motivates investors to invest and increases investor courage to bear the risk effects of the investment made (Rahmawati, 2019).

The Efficient Market Hypothesis (EMH), which explains that the price of a stock will fully reflect the information available in the market, is one of the references for investors in making decisions. Investors want returns above the average price of every investment they make. However, there is an odd phenomenon that occurs once a year called the January Effect, causing market efficiency to be disrupted and causing errors in pricing due to incorrect assumptions used by the market.

The assumption is that next month, investors will have the opportunity to get a higher rate of return than in other months. The increase in returns in January occurred due to the pressure in the next month that esters reinvested, so buying pressure increased. This buying pressure can be seen in Trading Volume Activity, where volume activity can describe the situation in the capital market based on the impact of transactions that occur in real-time and become a consideration in making investment decisions in stocks.

A stock split, in which the company's stock price rises to a high nominal level or exceeds the share price of comparable companies, makes some investors uncomfortable and impacts low-volume trading activity, is one of factors that affect a stock's trading volume activity. That is because the large trading volume will provide high-return opportunities and put the stock in demand among investors. With this consideration, a company can decide on a stock split. A stock split can make a stock appear more affordable, even if the company's underlying value does not change.

Substantially, stock returns become one of the factors for investors in making investment decisions, and investments from investors serve as company

funding to develop their companies. Even these funds can be used for company business expansion to get a higher return or higher business profit. This study aims to provide an overview and assess the relationship between variables that can cause stock returns in a company. Some variables be fathomed affect stock market returns, including Trading Volume Activity, the January Effect and Stock Splits.

THEORETICAL REVIEW

Efficient Market Hypothesis

Investors with rational behavior will judge stocks based on the fundamental value of the company they want to invest in and assess the risk associated with those shares. When investors know that new information is confirmed and has a positive value for the company, it will affect the stock's fundamental value. Investors are interested in trading stocks; when there is good news, it changes stock trading volume. If there is good news, there is pressure on bid volume activity at high prices, and if there is lousy news, there is pressure on bid volume activity at low stock prices. High and low bids affect stock prices, especially stock returns that will be obtained with a mindset to maximize tight profits.

Every action taken by investors is based on an evaluation of the latest information circulating in the market, one of which is the company's decision to do a stock split, and a stock split can be responded to positively or negatively by the company. This also applies to January securities. The basis for forming the EMH theory is the belief that investors will act rationally in utilizing the information they have to maximize their capital and obtain more profits.

Signaling Theory

The company's management always tries to provide the latest company information in the form of relevant signals for use by investors. Then, investors decide whether the signal is good or bad based on knowledge and understanding. One form of the signal given announces the company's stock split. Investors will analyze the announced trading volume of stocks on the stock exchange, especially trading volume activity. The existence of January securities can also be a signal for investors to decide whether to buy or not.

When investors assess and translate signals as good news, it will positively impact the company's share price in stock trading, causing positive stock returns. The opposite will happen if investors interpret this signal as bad news. Investors are reluctant to buy the stock, resulting in decreased stock prices and low trading activity and returns.

Stock Market Return

Every investor wants the results obtained from investments in rock returns, such as realized returns and returns that have not occurred but are expected to occur. The profits and returns that the company generates are a good indicator of its performance (Bangun, 2020). The return given to investors is

usually expressed as an annual percentage. The level of stock return is always expected to exceed capital. Each company has a different rate of return. This is due to performance, company decisions, and even market behavior. One of the company's decisions can cause an increase or decrease in stock prices and transaction volumes. Namely, stock splits are where the market can integrate stock splits that will give high returns or provide low returns. The assumption that the January effect caused investors to invest more funds in January is also one of the factors suspected to be the cause of stock returns. The formula used:

$$\boldsymbol{SR = \frac{\text{Stock Price Period (t)} - \text{Stock Price Period (t-1)}}{\text{Stock Price Period (t-1)}}}$$

Trading Volume Activity

Looking at trading volume is very important for an investor because investors can assess and describe the situation in the actual capital market by looking at stock trading volume. The amount of trading volume will provide high returns, so many investors are targeted. The stock trading transaction activity is called trading volume (Andiani & Gayatri, 2018). This volume contains information in the form of sellers and purchases so that investor responses can be seen that cause stock price movements based on the information received (Poussette et al., 2014). For investors, before investing in an investment, the main thing that can be seen is the level of liquidity. The formula used:

$$\boldsymbol{\text{TVA} = \frac{\text{Stock Trading Volume in Period t}}{\text{Number of Shares Outstanding in Period t}}}$$

January Effect

One of the anomalies that often disrupt capital market activity is the calendar anomaly, namely the January Effect. This effect looks at variations in returns across different months of the year and assumes January has a significant return while other months have low returns (Chatterjee & Maniam, 1997). If investors want to get the expected return, they must be able to manage every piece of available information correctly. Anomalies that occur in the capital market can be one factor in considering stock returns. The formula used:

Dummy variable:

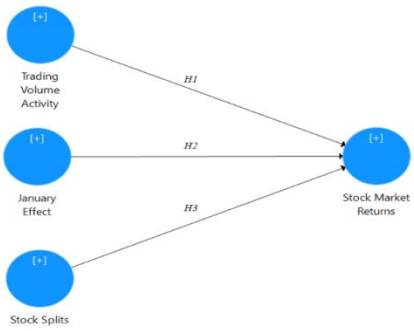
1 point for a higher January Return and 0 point for a month other than January with a high Return

Stock Splits

Stock splitting will cause mirage effects and increase investors' desire to collect stock because companies that carry out stock splits have good financial performance (Hirmawan, 2018). This has an economic value, such as Indications that stock splits will encourage investors to make transactions on these shares to have high trading volume activity and, of course, high returns. Companies frequently split their shares when the price rises above the ideal range, so joining a stock split is essential for the company's expansion and value maximization. Investors will respond to stock split signals, but only well-performing companies can provide signals trusted by investors. The formula used:

Variabel dummy:

1 point for companies that do stock splits and 0 points for companies that do not do stock splits



Picture 1. Conceptual Framework

METHODOLOGY

Consists of technology sector companies listed on the Indonesia Stock Exchange for 2021 and 2022, consisting of 41 companies. The technique used to determine the sample in this study is purposive sampling, a sampling technique with consideration (Creswell & John, 2017). The selection criteria are technology sector companies listed on the Indonesia Stock Exchange in 2022, companies that attach complete data for these research variables, and financial statements that can be accessed through the Indonesia Stock Exchange and the company's website. Based on the criteria applied, there are 19 companies as research samples.

This study aims to analyze, describe, and obtain empirical evidence of the influence of Trading Volume Activity, the January Effect and Stock Splits on Stock Market Returns. Researchers developed the PLS-SEM model to predict and investigate the effects of variables X and Y.

RESULTS

Statistic Descriptive

Table 1. Results Statistic Descriptive

	N	Minimum	Maximum	Mean	Standard deviation
TVA (X1)	456,000	0,000	892,000	44,715	117,549
SS (X2)	456,000	0,000	1,000	0,158	0,365
JE (X3)	456,000	0,000	1,000	0,011	0,104
SR (Y)	456,000	-578,000	3493,000	49,899	360,299

Table 1 shows that the trading volume activity variable based on the study results has a minimum value of 0.000 and a maximum value of 892,000, with an

average value of 44,715 and a standard deviation of 117,549. This shows that the sample company has a minimum transaction of 0/share in the volume activity on the trading day and at least has the highest activity volume of 892,000,000/share with an average of 44,715,000/share and data deviations that occur of 11.75%.

Based on the study's results, The January effect variable has a minimum value of 0.000 and a maximum value of 1.000, with an average value of 0.011 and a standard deviation of 0.104. This shows that the sample company received 0 returns in January, higher than other months, and got at least one highest return in January, higher than other months, with an average value of 0.11% and data deviations that occurred of 1.04%.

Based on the study's results, The variable stock split has a minimum value of 0.000 and a maximum value of 1.000, an average value of 0.158, and a standard deviation of 0.365. This shows that the sample company conducted a stock split of at least 0 and a stock split at least once, with an average of 1.58% of the sample and data deviations of 3.65%.

Based on the study results, the variable stock market return has a minimum value of -578,000 and a maximum value of 3493,000, with an average value of 49,899 and a standard deviation of 360,299. This shows that the sample company has the lowest return of -578,000,000 (loss) and at least the highest return of 3,493,000,000, an average return of 49,899, and data deviations that occur at 36.09%.

Convergent Validity

Convergent validity is based on the principle that the manifest variables of a construct should be highly correlated. Convergent validity is assessed based on the loading factor value and Average Variance Extracted (AVE) value with criteria greater than 0.70 (>0.70).

Table 2. Convergent validity

	Loading Factor	**Average Variance Extracted (AVE)**	**Results**
TVA (X1)	1,000	1,000	Valid
SS (X2)	1,000	1,000	Valid
JE (X3)	1,000	1,000	Valid
SR (Y)	1,000	1,000	Valid

Discriminant Validity

Discriminant validity on the principle that indicators of different constructs should not be highly correlated. The validity of the discriminant is assessed based on the cross-loading value, with the criterion of a cross-loading value greater than 0.70 (>0.70) and a square root value of AVE higher than the correlation between variables.

Table 3. Discriminant validity

	Cross loading	√Average Variance Extracted (AVE)	Results
TVA (X1)	1,000	1,000	Valid
SS (X2)	1,000	1,000	Valid
JE (X3)	1,000	1,000	Valid
SR (Y)	1,000	1,000	Valid

Composite Reliability

The Reliability test proves the accuracy and consistency of the instrument in measuring construction. Measuring the reliability of a construct with reflective indicators can be done with Cronbach Alpha and Composite Reliability with composite reliability value criteria greater than 0.70 (>0.70).

Table 4. Composite Reliability

	Cronbach's Alpha	Composite Reliability	Results
TVA (X1)	1,000	1,000	Reliable
SS (X2)	1,000	1,000	Reliable
JE (X3)	1,000	1,000	Reliable
SR (Y)	1,000	1,000	Reliable

R-square

The R-Square or R^2 value measures the rate of variation of change of the independent variable against the dependent variable. The higher the R^2 value means, the better the predictive model of the proposed research model. Based on the value of Table 5 R-Square (R2), the value of R2 in Stock Market Return is 0.122, meaning that the stock return can be explained by 12.2% by Trading Volume Activity, Stock splits, and the January effect. In comparison, the remaining 87.8% was explained by other variables not examined in the study.

Table 5. R-square

	R-square	R-square adjusted
SR (Y)	0,122	0,116

Hypothesis Test

The PLS-SEM hypothesis can be seen in t-statistical values and probabilities. For hypothesis testing using statistical significance, the t-value for a 5% alpha value is 1.96. Thus, if the criteria for acceptance/rejection of the hypothesis, Ha is accepted if the t-statistic > 1.96 and H0 is rejected if the t-statistic < 1.96 as well as to determine the sign or not using probability, significant if the p-value < 0.05 and insignificant if p >0.05.

Table 6. Path Coefficient

	Original Sample (O)	T-Statistics (|O/STDEV|)	P Values
TVA -> SR	-0,044	0,915	0,180
SS -> SR	-0,057	2,173	0,015
JE -> SR	0,342	2,155	0,016

DISCUSSION

Effect of Trading Volume Activity on Stock Market Return

The test results show that trading volume activity has a t-statistic value of 0.915, less than 1.96, and a p-value of 0.180 greater than 0.05. It can be concluded that trading volume activity does not significantly affect stock market return, so the **H1 hypothesis is rejected.** Technology sector companies listed on the Indonesia Stock Exchange for 2021 and 2022 with high transaction volumes have yet to prove to increase returns.

The results of this study have no effect and can be caused by rational thinking and caution from investors in investing through many considerations. Stock trading with high activity in its trading activities makes stocks favored by investors, and the stock will certainly get large volume. However, it is not always the case that a high volume indicates a high return on the capital raised. Investors are more selective in assessing which stocks will be held for the long term and which are only for the short term.

This research is in line with (Windiana et al., 2022). Stock transaction activity described through Trading volume activity does not influence the return investors receive because trading volume is not the only consideration for investment decision-making. Market uncertainty will make investors reconsider investment decisions in stocks with returns in mind, despite the large trading volume.

Effect of January Effect on Stock Market Return

The test results show that the stock market return has a t-statistic value of 2.155, more than 1.96, and a p-value of 0.0 1 6, smaller than 0.05. then it can be concluded that the January effect has a significant effect on stock market return, so the **H3 hypothesis is accepted**; technology sector companies listed on the Indonesia Stock Exchange for the period 2021 and 2022 that have a high stock return in January slammed the other month will benefit faster from their investment than companies that have stock returns other than January.

An efficient market can experience anomalies at any given time. There is pattern formation and repetition, or it undergoes predictable changes. Anomalies cause investors to make predictions because stock price movements are patterned at certain times and are no longer random. Investors sell, before the end of the year, stocks whose prices have declined throughout the year to reduce their taxes, which negatively impacts their prices. The efficient market hypothesis concept implies the absence of price movement patterns that investors can use to earn significant profits consistently and continuously in the long run.

There is an assumption that selling underperforming stocks at the end of the year to reduce the amount of tax borne will make the company look better at

the end of the year in the portfolio, so that in December, the stock price will fall, then buy back in January, which causes the stock price to rise again in January.

Subhan (2016), in his research, said that the January Effect is a return that tends to be high in January, where investors are predicted to have the opportunity to produce higher returns than in other months. The results of this study are in line with research conducted by (Irawan (2021); Papavassiliou (2019); Kusumawati (2017)) which states that there is an influence on January's effect on stock returns.

Effect of Stock Split on Stock Market Return

The test results show that the stock split has a t-statistic value of 2.173, more than 1.96, and a p-value of 0.015, more diminutive than 0.05. Then it can be concluded that the stock split significantly affects stock market return, so the **H2 hypothesis is accepted.** Technology sector companies listed on the Indonesia Stock Exchange for periods 2021 and 2022 show that companies that conduct stock splits tend to have high stock returns compared to companies that do not do stock splits.

The results of this test are by Signaling Theory, which states that the company's corporate action gives a positive signal to investors that the company's performance in the future is believed to continue to increase and provide profitable returns, Stock splits carried out by the company can be interpreted by investors as a positive signal characterized by the appearance of abnormal returns around the date of the stock split announcement, so that investors will get benefits before and after the stock split. This research is in line with (Rahayu & Murti (2017); Fitria et al. (2019); Dewi et al. (2019)) who explained that there are differences in returns before and after stock splits, but in this study, there are a novelty, which focuses on influence so that it can find out the relationship between stock splits and stock returns.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of research and discussion, trading volume activity does not affect stock market returns. This shows that other variables dominate in affecting returns, and large transaction volumes do not guarantee that investors will get high returns. Stock splits affect stock prices. This shows that the splitting of shares from a higher stock price to half the price indicates a desire for Companies to develop and do personal branding among investors by selling shares at prices that can be reached by many people, increasing investor investment interest in these shares, in addition to the interest in generating investor confidence in the long term and resulting in stock returns in the company increasing before and after the announcement of the stock split.

The January effect stock market return, shows that calendar anomalies can be an opportunity for stock returns for investors. Where there is the same pattern of assumptions in December, investors prefer to release shares and buy back shares in January, resulting in investors hunting stocks in January to get current or

expected returns. The company must provide signals to investors so that investors can respond to the company's shares on the Indonesian stock exchange. Investors are expected to understand the factors that affect stock returns so that they can be one of the factors in making investment decisions.

FURTHER STUDY

Based on the results of the study, it is expected that the companies studied will be more comprehensive by adding samples of companies reviewed, such as combining several company sectors and adding other variables, such as mediating and moderating variables that can affect stock Market returns, such as sustainability reports, company profits, inflation rates, and liquidity.

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