

International Social Sciences and Humanities **UMJember Proceeding Series (2023)** Vol. 2 No 3: 919-927



# The Effect Of Trading Frequency, Trading Volume And Market Capitalization On Stock Returns On The Lq45 Company Listed At Idx In The Period 2017 – 2021

<sup>1</sup>**Febriana Sekar Cahyani, <sup>1</sup>Abdul Karim** <sup>1</sup>Muhammadiyah University of Tangerang

Abstract: This study sights to figure out the effect of trading frequency, trading volume and market capitalization towards stock returns

\*Correspondence:Febriana Sekar Cahyani Email: <u>febrianasc06@gmail.com</u>

Accepted : Juli 2023 Published: September 2023



Copyright: © 2023 by the authors. Submitted for possible open access publication under the term and conditions of the Creative Common Attribution (CC BY NC) licens: (http://creativecommons.org/licenses/by/4.0/). in LQ45 index companies which officially listed on the Indonesia Stock Exchange (IDX). This research has been collecting data for previous 5 years, it is during the period of 2017-2021. This research method uses a quantitative descriptive method. The total 45 companies have been listed as population of this research in view of the fact that those are labelled as LQ45 index companies which officially listed on the Indonesia Stock Exchange (IDX) during the year period of 2017-2021. Through purposive sampling technique, there have been opted 21 companies which representatively complete the sample criteria completion. In addition, Panel data regression analysis which practically analyzed on the Eviews 12 program has been applied as analytical method of this conducted research. The gained results confirm that trading frequency meets a significant negative effect towards stock return, however, trading volume and market capitalization simultaneously meet an effect towards stock return.

Keywords: Trading Frequency; Trading Volume; Market Capitalization; Stock Return.

#### **INTRODUCTION**

The country's economic growth is demonstrated by the capital market's expansion. The economy of a nation is significantly influenced by the capital market. It is, in other words, a fair revenue distribution system. The capital market is where stocks and bonds, which are financial products, are traded over a lengthy period of time, typically one year or more. According to Law Number 8 of 1995 Concerning the Capital Market, the capital market encompasses all activities related to the public offering and trading of securities, public companies related to the securities issued, institutions related to these securities, and professions related to these securities (Yuana & Barata) [1].

The condition of the Covid-19 epidemic, which has not only affected the global stock market but also Indonesia, is one of the events that can affect the capital market's activity. It can result in changes in stock prices and stock trading activity in 2020. Stock prices in Indonesia, especially those of LQ45 firms, drastically decreased as a result of the Covid-19 outbreak. idx.co.id data indicates that the share price index for LQ45 firms is 22.0% in 2019, -9.0% in 2020, and 3.2% in 2021. This means that stock returns may increase or perhaps decrease dramatically. Stock return is one measure of the assessment or perspective of investors about the quality of the company associated with stock prices and profitability [18]. This can be observed by looking at how the LQ45 index-classified companies changed over time. The performance of the LQ45 index is impacted by the global economy's deterioration, which is occurring despite the high stock market valuation. Through a variety of factors that influence economic growth, investment can strengthen and expand the nation's

economy. According to [19] The investor's goal in investing is to gain profit from these activities and also expect that the funds invested will be stored safely and can be easily withdrawn if needed. Investors investments in businesses have the potential to boost corporate wealth, produce jobs, and grow the economy. investment activities can be used as an alternative for someone who does not have sufficient capital at the start, by sacrificing some of their current wealth to invest in the capital market, which in turn will provide a return or return that can be used as capital for a business in the future [20].

According to (Stiawan) [2] The development of returns, which are defined as both direct and indirect financial advantages, is the primary goal of all investments, whether they are made over the short or long term. The gain or loss an investor experiences on money they have invested is referred to as the Rate of Return (Return) Calculating stock returns can result in both favorable and unfavorable outcomes. The outcome of the stock return computation is favorable when an investment is profitable or qualifies as a capital gain. Conversely, if the result of the stock return computation is negative, the investment was a loss or a capital loss. There are a number of potential factors, including inadequate management, high debt levels, a decline in investor trust, poor performance with unstable return values, and poor management (Novaliasari) [3].

There are several factors that can affect stock returns, one of which is trading frequency. The volume of transactions in the stock under consideration over a period of time is referred to as the frequency of stock trading (Novaliasari) [3]. Examining the trade volume is one technique to determine whether investors are interested in the company. The more frequently a stock trades, the more liquid and appealing it is to investors the less frequently a stock trades, the less appealing it is to investors. Trading frequency affects stock returns, according to research by Maysie [4], Yuana & Barata [1]. However, according to Yusra [5] trading frequency has no effect on stock return.

The second factor is trading volume. The value of investor transactions of stock purchases and sales is known as stock trading volume (Damaris & Poerwati) [6]. When analyzing stock valuations and data on the capital market, stock trading volume is usually one of the things mentioned. The low trading volume reveals that investors are hesitant and uneasy about making future investments. High trading volume is necessary for a stock to be actively traded. strong profits can also be expected from strong trading volume, which also indicates that investors are very interested in the stock (Rohmawati) [7]. Research by Novaliasari [3] and Damaris & Poerwati [6] shows that stock trading volume affects stock returns. However, Yusra [5] demonstrates that stock returns are not affected by stock trading volume.

According to (Frida) [8] Market capitalization is the third factor that may have an impact on stock returns. Market capitalization is the product of the number of shares of the company multiplied by the stock price, which represents the market worth of all outstanding shares The size of a firm is indicated by its capitalization. A company's market value can be characterized as high if its share price is high and its share volume is high. Due to their high growth potential, exposure to safety, and low dividend distributions, investors choose to make long-term investments in large-cap firms. Generally speaking, the stock price will be relatively high and will also provide excellent profits due to the vast number of devotees. Market capitalization has a positive and significant effect on stock returns, according to research by Novaliasari [3] and Niawaradila et al. [9]. However, research by Fakhrudin & Wulandari [10] and Handayani et al. [11] did not find any influence between market capitalization and stock returns.

This study aims to determine the effect of trading frequency, trading volume and market capitalization on stock returns in LQ45 index companies that are listed on the Indonesia Stock Exchange (IDX) from 2017 to 2021. This study has the advantage that it can be used as an indicator for additional research and as an illustration for investors to understand the effect of trading frequency, trading volume and market capitalization on stock returns in LQ45 index companies that were officially listed on the Indonesia Stock Exchange (IDX) between 2017-2021. It is anticipated the results of this study could help both current and potential investors make better investment selections and lower their risk of loss in the future.

# LITERATURE REVIEW

#### **Signaling Theory**

Signaling theory analyzes price fluctuations in markets like stocks and bonds and how these fluctuations influence financial decisions. When choosing an investment, investors must take numerous factors into account (Fahmi) [12]. This theory's goal is to aid investors in comprehending stock orientation, which is essential for business management to decide on future prospects and directions. Investors might decide to invest in the firm using information that the company publishes. The market is anticipated to respond to the company's announcement if it contains encouraging news. It is anticipated that the value of outside investment will rise, enabling the company to advance and expand its operations (Yakhub & Kristianti) [13].

#### **Efficient Market Theory**

The theory of an efficient capital market includes information completeness, especially the strategies used with respect to the share price of the listed company (Fama, 1970) in (Murtaza & Aryani) [14]. According to this definition, an efficient market exists when price changes are based on information that is readily available, without considering how quickly and accurately price changes are based on the information that is being shown (Castor, 1989) in (Murtaza & Aryani) [14]. The stock price is affected by how investors react to this information, and inventors view this as a stock return. Effective capital markets require three different types of information: historical information (stock prices and trading volume), published or displayed information (announcing earnings, paying dividends, issuing new shares, financial statements, board policies, other accounting requirements, and supplementary reports), and private information (information about the company that shouldn't be made public) (Murtaza & Aryani) [14].

## **Stock Return**

Return is the profit made as a result of an organization's, person's, or institution's investment strategies (Fahmi) [12]. The profit or loss made by investors on their invested money is known as the rate of return (Stiawan) [2]. After deducting the company's expenses and liabilities, shareholders who own shares in the company can profit from it. Depending on how long the investor owns the company's shares, this income may come via dividends or capital gains/losses. According to Jogiyanto (2014) in (Fakhrudin & Wulandari) [10] the stock return formula is :

$\mathbf{R}_{\perp} = \frac{Pt - Pt - 1}{Pt}$
$R_{it} = \frac{1}{Pt-1}$

Description:

R<sub>it</sub> : Stock Return

Pt : Current Period Stock Price

Pt-1 : Previous Period Stock Price

## **Trading Frequency**

The trading frequency of a stock indicates how frequently it is traded over a specific time period (Cahyani et al.) [15]. Frequency of trade demonstrates stock market interest among investors. Because so many investors actively purchase these shares, stocks with high trading frequency are a result of this. When there are many trades in a stock, it is said to be liquid. The volume of transactions in a stock is referred to as trading frequency. The low trading frequency of a stock is also a factor in determining its liquidity (Niawaradila et al.) [9]. According to Silviyani (2014) in (Sa'diyah et al.) [16] if there are 75 or more trades each day, the stock market are being actively traded.

## **Trading Volume**

The value of an investor's stock transactions is based on how many shares they buy and sell. An additional method for determining the volume of stock trading is to count the number of shares that were traded on a certain day. A large trading volume, which implies that the shares are well-liked by investors and can be easily moved, is a sign of active trading in a company's shares. A very high volume of trade on the stock exchange may indicate that market conditions are getting better (Damaris & Poerwati) [6]. shares traded on

the stock market in terms of volume over a specific time frame. The whole value of shares sold is subtracted from the complete value of shares still outstanding to determine stock turnover (Murtaza & Aryani [14].

# Market Capitalization

By dividing the quantity of outstanding shares by the share price, also known as market capitalization, one can determine the market value of the shares that are now outstanding. This market value demonstrates the size of a corporation (Frida) [8]. The value of the shares that have been issued by the company's owners is known as market capitalization. Due to their great performance in terms of income distribution and minimal risk, large-cap companies are frequently sought after by investors as a benchmark for long-term investments. The rewards shared are substantial because stock prices are often high due to relatively high interest rates (Niawaradila et al.) [9]. According to Ang (2007) in (Tahmat et al.) [17] in finding market capitalization, the following equation formula can be used :

 $V_s = P_s \times S_s$ 

Description:

- V<sub>S</sub> : Market Capitalization
- P<sub>s</sub> : Market price or closing price
- $S_s$  : Number of shares issued by the company

## METHOD

Research design

Quantitative descriptive methodology is used in this research approach. Quantitative data used in this study was obtained from secondary sources and was gathered from annual financial reports listed on the Indonesia Stock Exchange (IDX) website <u>https://www.idx.co.id</u>.

## Population, Sample, Sampling

The population taken into consideration in this study consisted of all 45 LQ45 corporations that were listed on the Indonesia Stock Exchange from 2017 through 2021. In this study, a sample of 21 companies that satisfied the following criteria : LQ45 companies listed on the IDX for the 2017–2021 period, LQ45 companies that have not consistently been listed on the IDX for the 2017–2021 period, and LQ45 companies without complete data for the variables to be studied was chosen through the use of purposeful sampling. Due to the vast amount of data and to reduce human error in manual calculations, the calculations for this study will be performed using computer aid, namely through the E-Views 12 application.

# **RESULTS AND DISCUSSION**

# Results

## **Descriptive Statistics Analysis**

Table 1. Descriptive Statistics Analysis						
	Stock	Trading	Trading	Market		
	Return	Frequency	Volume	Capitalization		
Mean	-0,037388	1195705	766000000	124000000000000		
Maximum	0,791855	4364756	37837422700	550184503737000		
Minimum	-0,825000	373286	206498200	6123488039460		
Observation	105	105	105	105		

Source : Data processed from the Eviews 12 program.

In this study, descriptive analysis is used to describe the research subject using sample data. The variables of trading frequency, trading volume, and market capitalization are included in the descriptive analysis in this study. These variables are displayed in the table below :

In this research, the stock return is the dependent variable. The table above, which is the result of descriptive statistics with 105 observations, shows that PT. Bank Negara Indonesia (BBNI) has the highest stock return for the 2017 period, with a value of 0.791855, while PT. Unilever Indonesia (UNVR), with a value of -0.825000, has the lowest value for the 2020 period. The company with the highest trading frequency for the 2020 period is PT. Telekomunikasi Indonesia (Persero) Tbk. (TLKM), with a value of 4.364.756, while the company with the lowest trading frequency for the 2017 period is PT. Indofood CBP Sukses Makmur Tbk. (ICBP), with a value of 373.286. The company with the biggest trading volume for the 2021 period is PT. Perusahaan Gas Negara (Persero) Tbk. (PGAS), with a value of 37.837.422.700, while the company with the lowest trading volume for the 2018 period is PT. Gudang Garam Tbk. (GGRM), with a value of 206.498.200. The company with the largest market capitalization for the 2017 period is PT. H.M Sampoerna Tbk. (HMSP), with a value of 550.184.503.737.000, while the company with the lowest market capitalization for the 2017 period is PT. PP (Persero) Tbk. (PTPP), with a value of 6.123.488.039.460.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.211063	0.087429	-2.414113	0.0180
TF	-1.75E-07	4.55E-08	-3.849847	0.0002
TV	2.23E-11	7.98E-12	2.791885	0.0065
MC	1.71E-15	4.71E-16	3.626452	0.0005

# Hypothesis test

#### Cross-section fixed (dummy variables)

	Weighted Statistics				
Root MSE	0.197468	R-squared	0.445880		
Mean dependent var	-0.048735	Adjusted R-squared	0.288537		
S.D. dependent var	0.266335	S.E. of regression	0.224828		
Sum squared resid	4.094341	F-statistic	2.833809		
Durbin-Watson stat	2.313771	Prob(F-statistic)	0.000306		

Source : Data processed from the Eviews 12 program.

As indicated by the coefficient of determination ( $\mathbb{R}^2$ ), which has a value of 0.288537, any variation in changes in the rise and fall of stock returns can be accounted for by trading frequency, trading

volume, and market capitalization to the extent of 28.85%, with the remaining 71.15% being accounted for by other factors not examined in this study.

The f-statistic for the F test is 2.833809, while the f table's value is 2.69 with  $\alpha$ = 5% level, df1 (4-1) = 3, and df2 (105-3) = 102. Therefore, it may be inferred that the independent factors have an impact on the dependent variable simultaneously (together) based on the f-statistic (2.833809) > f table (2.69) and Prob value (f-statistic) 0.000306 < 0,05.

The Trading Frequency, Trading Volume, and Market Capitalization variables' results based on the t test, as shown in the above table, are as follows :

**Trading Frequency (X1)** demonstrates that trading frequency negative and significant affects the stock return variable. This is demonstrated by the study's findings for the trade frequency variable, which have a t-statistic value of -3.849847 but the t table with a = 5% level is 1.9835. Trading Frequency's t-statistic (-3.849847) < the t table's (1.9835) value, and the probability value is 0.0002 < 0.05. Trading Frequency has a negative and significant on the Stock Return variable.

**Trading Volume (X2)** demonstrates that the stock return variable is positive and significant impacted by trading volume. This is demonstrated by the research findings on the trading volume variable, which have a t-statistic value of 2.791885 for trading volume and a t table with a level of 5% = 1.9835. the Trading Volume T-statistic (2.791885) > the T-table (1.9835) and had a Prob. value of 0.0065 < 0.05. In light of the fact that trading volume has a positive and significant impacted on the Stock Return variable.

**Market Capitalization (X3)** demonstrates that market capitalization positive and significant affects the stock return variable. This is demonstrated by the findings of the research on the Market Capitalization variable, where the Market Capitalization t-statistic value is 3.626452 and the t Table with a = 5% level is 1.9835. Therefore, the Market Capitalization (3.626452) > t Table (1.9835) t-statistic and the Probability value of 0.0005 < 0.05. Market Capitalization has a positive and significant on the Stock Return variable.

# Discussion

# The Effect of Trading Frequency on Stock Return

Trading frequency significantly and negatively affects stock returns. A stock with a high trading frequency also has a high amount of liquidity, according to the value of the trading frequency. A company's stock income will improve when more investors get interested in investing in it as a result of the stock's increased liquidity. The frequency of stock trading, however, is not the sole element influencing stock performance. Due to problems with liquidity, it might potentially lower stock returns. Trading frequency simply indicates the volume of transactions, regardless of live market fluctuations, when describing liquidity. Investors perceptions that the stock is not actively traded on the stock market exchange market and that the company is in poor shape can cause bigger stock price fluctuations (Yuana & Barata) [1].

# The Effect of Trading Volume on Stock Returns

Trading volume significantly and positively affects stock returns. With the positive influence it suggests that both the amount of stock trading and stock returns will rise. This is due to the fact that the more shares that are exchanged on the stock market, which indicates that investors are becoming more eager to own these shares, the more actively the shares will be traded. This raises interest in shares, which elevates stock returns (Yuana & Barata) [1].

## The Effect of Market Capitalization on Stock Returns

Market capitalization significantly and positively affects stock returns. The beneficial result indicates that when the value of the stock market rises, so does the stock return. This is as a result of the fact that the greater a company's market value, the more indicators there are on the stock market of a superior stock. Due to the company's huge growth potential and relatively minimal risk, stocks with high market capitalization are long-term investment targets for investors. There is a chance that stock returns will improve because there are typically many enthusiasts, which causes the share price to be relatively high (Yuana & Barata) [1].

## CONCLUSION

It is possible to draw the following conclusions from the discussion of the previously have been stated previously, research results is The Trading Frequency variable are partially impacted by the stock return in LQ45 Company Listed on the IDX in the 2017–2021 Period. The Trading Volume variable are partially impacted by the stock return in LQ45 Company Listed on the IDX in the 2017–2021 Period. The Market Capitalization variable are partially impacted by the stock return in LQ45 Company Listed on the IDX in the 2017–2021 Period. The Market Capitalization variable are partially impacted by the stock return in LQ45 Company Listed on the IDX in the 2017–2021 Period. The Market Capitalization variable are partially impacted by the stock return in LQ45 Company Listed on the IDX in the 2017–2021 Period. Simultaneously, the variables of Trading Frequency, Trading Volume and Market Capitalization affect Stock Returns in LQ45 Company Listed on the IDX in the 2017-2021 Period. It is anticipated that suggestions for future research will be used as a basis for comparison and as a source of reference in order to advance knowledge in the field of financial management. This study is anticipated to provide more information to other academics that are interested in studying stock returns. In order to provide future researchers with complete data and simple access to data, it is anticipated that this research would focus more on the completeness of firm data.

## REFERENCES

- A. Tahmat, Fitria Lilyana, Mulyani, "Pengaruh Kapitalisasi Pasar Dan Rasio Nilai Buku (Rasio Pbv) Terhadap Return Saham Top 10 Market Capt 2010-2019," JEMPER (Jurnal Ekonomi Manajemen Perbankan ), vol. 3, no. 2, pp. 89–102, 2021.
- A. H. Hafidzi dan N. Qomariah, "The Role of Return on Asset Mediation in Influencing Corporate Social Responsibility on Stock Returns in Manufacturing Companies," *Qual. - Access to Success*, vol. 23, no. 186, hal. 230–236, 2022, doi: 10.47750/QAS/23.186.30.
- A. H. Hafidzi, E. B. Satoto, dan R. E. Supeni, "The Effect of COVID-19 Pandemic on Stock Return of Kompas 100 Index," Int. J. Sustain. Dev. Plan., vol. 18, no. 1, hal. 283–294, 2023, doi: 10.18280/ijsdp.180130.
- A. M. Yakhub and I. N. Kristanti, "Pengaruh Kinerja Laporan Keuangan Terhadap Return Saham pada Perusahaan yang Tergabung dalam Indeks LQ45 Tahun 2018-2020," Jurnal Ilmiah Mahasiswa Manajemen, Bisnis dan Akuntansi (JIMMBA), vol. 4, no. 4, pp. 567–584, 2022, doi: 10.32639/jimmba.v4i4.150.
- A. Murtaza and A. T. D. Aryani, "Pengaruh Volume Perdagangan, Laba Akuntansi, dan Profitabilitas Terhadap Return Saham Syariah Dimoderasi Pengungkapan ISR," Jurnal Akuntansi dan Audit Syariah (JAAiS), vol. 2, no. 2, pp. 146–169, 2021, doi: 10.28918/jaais.v2i2.4493.

- A. N. Fakhrudin and R. Wulandari, "Pengaruh Laba Akuntansi, Pertumbuhan Penjualan, Dan Kapitalisasi Pasar Terhadap Return Saham Pada Idx Perindustrian Tahun 2016-2020," Jurnal Riset Akuntansi, vol. 17, no. 2, pp. 1–23, 2022.
- B. Niawaradila, G. Wiyono, and A. Maulida, "Pengaruh Frekuensi Perdagangan, Volume Perdagangan, Dan Kapitalisasi Pasar Terhadap Return Saham Perusahaan Manufaktur Yang Terdaftar Di Bei Periode 2016-2019," *Ecobisma (Jurnal Ekonomi, Bisnis Dan Manajemen)*, vol. 8, no. 1, pp. 122–138, 2021, doi: 10.36987/ecobi.v8i1.2078.
- B. Damaris and R. Poerwati, "Pengaruh Volume Perdagangan, Kurs Dan Risiko Pasar Terhadap Return Saham Pada Perusahaan LQ45 Di Bursa Efek Indonesia Tahun 2018-2020," Jurnal Ilmiah Mahasiswa Akuntansi) Universitas Pendidikan Ganesha, vol. 13, pp. 2614–1930, 2022.
- C. V. O. Frida, Strategi Investasi dan Trading Saham di Pasar Moal Indonesia. Yogyakarta: Garudhawaca, 2022.
- C. P. Cahyani, Y. T. Permadhy, and A. Aziz, "Analisis return saham lq45 di bursa efek indonesia," KORELASI Konferensi Riset Nasional Ekonomi, Manajemen, dan Akuntansi, vol. 2, pp. 349–361, 2021.
- E. Novaliasari, "Pengaruh Frekuensi Perdagangan Saham, Volume Perdagangan Saham Dan Kapitalisasi Pasar Terhadap Return Saham LQ45," *Photosynthetica*, vol. 2, no. 1, pp. 1–13, 2018, [Online].
- E. Stiawan, Manajemen Investasi Portofolio & Pasar Modal, 1st ed. Bengkulu: CV. Sinar Jaya Berseri, 2022H. Sa'diyah, D. Amboningtyas, and E. Gagah, "Pengaruh Frekuensi Perdagangan Saham, Volume Perdagangan Saham, Kapitalisasi Pasar Dan Jumlah Hari Perdagangan Terhadap Return Saham (Studi Empiris Pada Perusahaan Indeks LQ45 yang terdaftar di Indonesia Stock Exchange (IDX) Periode Tahun 2015- 2019)," J Manage, vol. 7, no. 1, 2021, doi: 10.46317/1423-006-002-005.
- I. Fahmi, Pengantar Manajemen Keuangan Teori dan Soal Jawab, 7th ed. Bandung: Alfabeta, 2022.
- K. Maysie, "Pengaruh Frekuensi Perdagangan, Volume Perdagangan & Kapitalisasi Pasar Terhadap Return Saham Pada Sektor Pariwisata Yang Terdaftar Di BEI," Jurnal Manajemen Sains dan Organisasi, vol. 2, no. 1, pp. 73–84, 2021, doi: 10.52300/jmso.v2i1.3055.
- I. Rohmawati, "Pengaruh Volume Perdagangan, Dividend Payout Ratio Dan Inflasi Terhadap Volatilitas Harga Saham Pada Perusahaan Yang Terdaftar Dalam Indeks LQ45 Tahun 2011-2015," Jurnal Pendidikan dan Ekonomi, vol. Volume 6, pp. 1–2, 2017.
- M. Yusra, "Pengaruh Frekuensi Perdagangan, Trading Volume, Nilai Kapitalisasi Pasar, Harga Saham, Dan Trading Day Terhadap Return Saham Pada Perusahaan Kosmetik Dan Keperluan Rumah Tangga Di Bursa Efek Indonesia," *Jurnal Akuntansi dan Keuangan*, vol. 7, no. 1, p. 65, 2019, doi: 10.29103/jak.v7i1.1841.
- N. Qomariah, M. I. Sari, dan D. A. Budiarti, "Perbandingan Kinerja Reksadana Syariah Dan Reksadana Konvensional (Pada Reksadana Saham Dan Reksadana Pendapatan Tetap Yang Terdaftar Di Bei Periode 2010-2014)," J. Keuang. dan Perbank., vol. 20, no. 3, hal. 417–427, 2016, doi: 10.26905/jkdp.v20i3.273.

- R. Handayani, Suhendro, and E. M. W, "Pengaruh profitabilitas, debt to equity ratio, price to earning ratio dan kapitalisasi pasar terhadap return saham," *INOVASI: Jurnal Ekonomi, Keuangan dan Manajemen*, vol. 18, no. 1, pp. 127–138, 2022, doi: 10.29264/jinv.v18i1.10397.
- Y. Yuana and J. Barata, "Pengaruh Frekuensi Perdagangan, Volume Perdagangan Dan Kapitalisasi Pasar Terhadap Return Saham Sektor Pertambangan Batu Bara Yang Terdaftar Di BEI," *Revitalisasi*, vol. 11, no. 1. p. 80, 2022. doi: 10.32503/revitalisasi.v11i1.2537.