

## The Effect of Trading Volume, Frequency and Market Capitalization on Stock Return of Chemical Sub Sector

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### ABSTRACT

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*The purpose of this study was to analyze the impact of trading volume, trading frequency, and market capitalization on stock returns of the chemical sub-sector. This study uses quantitative data. The relationship between trading volume, trading frequency, and market capitalization with stock returns will be tested using single linear regression analysis, multiple linear regression analysis, correlation coefficient, coefficient of determination, autocorrelation, multicollinearity, heteroskedasticity, t-test, and F test. The independent variables in this study are trading volume, trading frequency, and market capitalization and the dependent variable is stock returns. Based on a simple regression test, all independent variables have a significant effect on the dependent variables, but using a multiple regression test, no one of all independent variables significantly affects the dependent variable. Based on the F test which significance value of  $0.008 < 0.05$ , can conclude that variables trading volume, trading frequency, and market capitalization simultaneously have significant effect on stock returns. The coefficient of determination of 0,311 showed that the three independent variables have a contribution value of 31.1%, which means that trading volume, trading frequency, and market capitalization affect stock returns by 31.1%, and the remaining 68.9% is influenced by other factors that are not described in this study.*

## 1. INTRODUCTION

Investment is defined as a delay current consumption to get future returns. Investments, while they can be risky, have a positive expected return, high-risk high-return, low-risk low-return (Abdul Hudri, 2009). According to Yusra (2019), stock returns are stock returns that are expressed in the form of a percentage made by the company to be distributed to investors who invest in which if the stock gains it is called a capital gain, and if it loses it is called a capital loss. Meanwhile, according to Sulbahri and Arifin (2019), stock return is the return or level of profit that will be obtained from investing following what was invested. Stock returns can be divided into realized returns and expected returns. Realized returns are returns that have occurred and are used as historical data. Return realization is used to measure the company's performance and historical data is taken for the future. Meanwhile, realized returns are returns that have not yet occurred and are still in uncertain plans. Stock returns are the main factor in investing where investors have the same goal of getting benefits that will be enjoyed both in the short and long term. Return or profit is obtained from the difference between the selling price of the stock and the purchase price of the stock that has been added to the dividend (Taslim and Wijayanto, 2016). Investors tend to choose stocks that have a good reputation and have a positive return (Nurhayati, 2016). The better the financial performance of a company, the higher the dividends given by the company to investors. One of the sub-sectors that experienced positive growth was the chemical sub-sector which makes a major contribution to national economic growth in Indonesia and can play a role in increasing productivity.

Stock returns influenced by micro and macro factors (Samsul, 2018). Micro factors (internal environment) are factors within the company, which include liquidity, financial leverage, and profitability ratio. Liquidity is the company's ability to meet financial obligations in the short term. According to Devaki (2017) the liquidity ratio is divided into current ratio, quick ratio and cash ratio. Current ratio (CR) is the ability of a company to meet short-term obligations or current debt. Quick ratio (QR) is the company's ability to pay short-term obligations quickly without looking at inventory to sell first which takes a long time, and cash ratio is the company's ability to pay short-term obligations using the cash it has. Financial leverage ratio is a ratio that can show the relationship of long-term loans provided by creditors with the amount of own capital provided by the owner of the company. The following types of financial leverage ratios are a debt to assets ratio (DAR) is a ratio used to see how many assets the company has with debt payments. Debt to equity ratio (DER) is a ratio used to see the company's comparison between the total capital or equity owned by the company and total debt. Profitability financial ratios are financial ratios used to see the company's ability to seek profit or profit. The profitability ratio consists of profit margin, return on Assets (ROA), return on equity (ROE), and earnings per share. Profit margin is the profit received by the company which is obtained from the difference from the sales price minus all costs including taxes and interest. Return on Assets (ROA) is a ratio that looks at the extent to which the investment that has been invested can provide an expected return on profits. Return on equity (ROE) is a ratio that is used to see the

company's ability to provide profits to the shares invested in the company and to determine the net profit value, earnings per share (Suhendri, Nurhayati and Supramono, 2019).

Macro factors are factors that include those from outside the company, including macroeconomic factors which include general domestic interest rates, foreign exchange rates, inflation rates (Nurhayati, Endri, Aminda, *et al* (2021) Endri *et al.*, (2020) and international economic conditions and non-economic factors which include domestic and foreign political events, wars, mass demonstrations and environmental cases (Nurhayati, Endri, Suharti, *et al.*, 2021).

Several factors affect stock returns and minimize investment risks such as trading volume, trading frequency, and market capitalization (Nurhayati, 2020). The volume of stock trading is one of the factors that influence the liquidity of a company's shares (Nurhayati, Suharti, Tina Kartika Rinda, *et al.*, 2021). Before investors buy shares, they must assess the shares purchased by looking at the volume of stock trading. Stock trading volume is the shares traded in the capital market that can affect stock prices. Thus, an increase in stock trading volume indicates that buying and selling transactions are good stocks that can attract investors to buy stocks. Meanwhile, the declining stock trading volume indicates that the stock is less attractive to investors which can affect the stock price itself (Suhendri, Nurhayati and Supramono, 2019). Trading volume activity (TVA) can be calculated by dividing the total number of stocks traded divided by the number of stocks outstanding at time  $t$  (1). The greater (smaller) the trading volume, the higher (the lower) the stock price, which will increase the demand for the stock which affects the high returns received by investors.

Stock trading frequency is the number of times buying and selling transactions occur in the stock in question at a certain time (2). For stocks that are in great demand by investors, the frequency of trading affects the number of shares outstanding. The greater the number of outstanding shares, the more active shares are traded. The frequency of stock trading is the number of times or the number of transactions of shares being traded. Active stocks show stocks that are in great demand by investors and vice versa (Novaliasari, 2018). In the stock exchange, trading frequency becomes a benchmark to see the market reaction to receiving information that enters the capital market and is an important indication as a reference for investors in buying shares in the capital market (Nurhayati, 2020). Market capitalization is defined as the value of a public company that has been listed on the stock exchange. The larger the capitalization of the company, the larger the size of the company (3). Market capitalization shows the size of a company where investors can hold their stocks because they see good prospects in the long term and high returns. The higher the market capitalization of the company, the more investors believe in the company in fulfilling short-term and long-term obligations.

The purpose of this study was to analyze the impact of trading volume, trading frequency, and market capitalization on stock returns of the chemical sub-sector. Based on previous research, trading volume, trading frequency, and market capitalization significantly affect stock returns

(Taslim and Wijayanto, 2016). Taslim and Wijayanto (2016) concluded that trading frequency had a significant positive effect on stock returns, while the trading volume, market capitalization, and trading day variables had an insignificant negative effect on stock returns. Yusra (2019) concluded that trading frequency and market capitalization has no effect on the level of stock returns. The results of Sustrinah (2020) conclude that partially trading volume activity has no significant effect on stock returns. The firm size variable has a positive and significant effect on stock returns. The results of the study about the effect of trading volume, exchange rate, and market risk on stock returns conclude that the trading volume variable shows positive but not significant results on stock returns, exchange rates have a significant negative effect on stock returns and market risk does not significantly affect on stock returns (Indriastuti, Ariyani dan Zumrotun, 2017).

In several previous studies, regression analysis of the relationship between volume, trading frequency, and market capitalization on stock returns get contradictory results. One study stated that it had a positive and significant relationship, and the results of the other study stated that it had a negative and significant relationship. These two contradictory results make this research interesting to continue, meaning that there is still a research gap related to the relationship between volume, trading frequency, and market capitalization on stock returns.

Based on all theoretical support and previous research, the hypothesis are :

- Ha1 : Trading volume has a significant effect on stock returns of chemical subsector companies
- Ha2 : Trading frequency has a significant effect on stock returns of chemical sub-sector companies
- Ha3 : Market capitalization has a significant effects on stock returns in chemical sub-sector companies
- Ha4 : Trading volume, trading frequency and market capitalization have a significant effect on stock returns of chemical sub-sector companies periode 2015-2019

## **2. RESEARCH METHODS**

This study uses quantitative and secondary data obtained from the Indonesia Stock Exchange and the company's financial statements. The research data collection method was carried out using documentation techniques from accessing the Indonesia Stock Exchange (IDX) website [www.idx.co.id](http://www.idx.co.id) obtained in the form of existing documents related to corporate agencies related to financial statements. The sampling method in this study used a purposive sampling method. The criteria for sampling in this study are chemical sub-sector companies listed on the Indonesia Stock Exchange in 2015-2019, have complete financial statement data to be taken in this study, and do not experience losses during 2015-2019. There are 7 companies from 12 companies that make up the population as shown in **Table 1**.

**Table 1.** Chemical Sub-Sector Companies Listed on the IDX

| Ticker Code | Company   |
|-------------|---|
| BRPT        | Barito Pasific Tbk.                                 |
| BUDI        | Budi Starch & Seetener Tbk. D.h Budi Acid Jaya Tbk. |
| EKAD        | Ekadharna International Tbk.                        |
| INCI        | Intan Wijaya International Tbk.                     |
| SRSN        | Indo AcitamaTbk. D.h Sarasa Nugraha Tbk.            |
| TPIA        | Chandra Asri Petrochemical Tbk.                     |
| UNIC        | Unggul Indah Cahaya Tbk.                            |

Source : Indonesian Stock Exchange (2020)

The research variables consist of stock returns as the dependent variable and the variables of trading volume, trading frequency and market capitalization as independent variables. stock returns can be calculated by the following formula:

$$R_i = \frac{P_t - P_{t-1}}{P_{t-1}} \dots\dots\dots(1)$$

Where:

P<sub>t</sub> = stock price in period

P<sub>t</sub> – 1 = stock price in the previous period

Stock trading volume is stocks traded in the capital market that can affect stock prices (6). The frequency of stock trading is the number of times or the number of transactions of shares being traded. The frequency of trading stocks can be seen as active stocks if the trading frequency is > 75 trades per day. Market capitalization is the value of a public company that has listed on the stock exchange. Market capitalization is the multiplication of the share price by the number of stocks issued (Nurhayati, Endri, Aminda, *et al.*, 2021). To analyze the relationship between the three independent variables and the dependent variable, two analyzes will be used, namely simple linear regression and multiple linear regression.

Stock trading volume is the number or number of shares traded by comparing with the shares outstanding. For stock trading, it can be measured using trading volume activity (trading volume activity) which can see whether or not a stock is active that provides high stock returns or vice versa according to high or low trading of shares sold (Sustrianah, 2020). Trading volume activity (TVA) can be formulated as follows (Taslim and Wijayanto, 2016):

$$TVA = \frac{\sum \text{Saham diperdagangkan}}{\sum \text{Saham yang beredar}} \dots\dots\dots(2)$$

The frequency of stock trading is the total buying and selling of shares in the capital market that occurs at a certain time or period. So it can be concluded that the frequency of stock trading is the number of buying and selling trade transactions in shares.

Nasution defines market capitalization as the value of the number of shares that have been listed on the stock exchange issued by the company. According to Rahardjo (2012) market capitalization is the product of the market price/closing price with the number of shares issued. So it can be concluded that market capitalization is the value of the number of shares used to assess the size of the company on the value of shares outstanding in a certain period. Stocks with high market capitalization will be the target of investors to invest in the long term. With a large market capitalization, it will affect relatively high stock prices which will provide high returns as well. So that large-capitalization becomes an attraction for investors to choose stocks and the longer it takes for investors to hold their share ownership, because investors believe that large companies will be stable in terms of finances, has small risks, and have good prospects in the long term to get large returns.(Nurhayati, Endri, Aminda, *et al.*, (2021), Nurhayati and Endri (2020)). Market capitalization can determined using this following formula:

$$Vs = Ps \times Ss \dots\dots\dots(3)$$

where,

Vs= Market capitalization

Ps= Market price

Ss= Number of shares issued

The previous studies about the effect of stock trading volume and firm size on stock returns of companies listed on the LQ45 index conclude that partially trading volume activity has no significant effect on stock returns. The firm size variable has a positive and significant effect on stock returns (Sustrianah, 2020). The results of the study about the effect of trading volume, exchange rate, and market risk on stock returns. conclude that the trading volume variable shows positive but not significant results on stock returns, exchange rates have a significant negative effect on stock returns and market risk does not. significant effect on stock returns (Indriastuti, Ariyani dan Zumrotun, 2017). Trading frequency, book value (PBV) as a proxy for stock value, return on assets (ROA) as a proxy for profitability, return on equity (ROE) as a proxy for profitability and debt to equity ratio (DER) as a proxy for capital structure variables do not affect stock returns on the company's Agri index on the 2015-2017 BEI (Sulbahri and Arifin, 2019).

### **Simple and Multiple Linear Regression Analysis**

Simple linear regression analysis was used to determine the effect of each independent variable (X) on the dependent variable (Y). The equation of the simple linear regression formula is  $Y = a + bX + e$ , where: X = Independent variable, Y = Dependent variable, a = Constanta and b = Regression coefficient and e = error. Multiple linear regression analysis is used to find out how the simultaneous influence of trading volume, trading frequency and market capitalization variables on stock returns. The equation of the multiple linear regression formula is  $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$ , where Y = Stock return, X1 = Trading volume, X2 = Trading frequency, X3 = Market capitalization, a = Constant, b1, b2, b3 = Regression coefficient and e = error.

### **t-test, F-Test, Correlation, Determination, Normality, Multicollinearity, Autocorrelation, Heteroscedasticity Test**

Hypothesis testing in this study uses the -t-test to analyze the significance of the effect of the independent variable on the dependent variable. In the t-test, if the  $\alpha$  value is  $< 0.05$  the hypothesis is accepted, which means that the independent variable tested has a significant effect on the dependent variable. On the other hand, if the  $\alpha$  value is  $> 0.05$ , the hypothesis is not accepted, which means that the independent variable has no significant effect on the dependent variable. The F test is used to analyze all independent variables simultaneously influencing the dependent variable. In the F test, if the  $\alpha$  value is  $< (>) 0.05$ , the  $H_a$  is accepted (rejected), which means that the independent variables tested simultaneously have a significant (insignificant) effect on the dependent variable. The coefficient of determination test is used to predict how much the influence of the independent variable contributes to the dependent variable. The value of the coefficient of determination is between zero and one. A value close to one means that the independent variables provide almost all the information needed to predict variation in the dependent variable. On the other hand, a small coefficient of determination indicates the ability of the independent variable to explain the dependent variable is very limited.

The correlation coefficient is used to determine how big the relationship between each independent variable and the dependent variable is. The correlation coefficient indicates that the relationship is low, moderate, or strong. The correlation coefficient is denoted by the letter r and has a value varying from -1 to 1. The following interpretation of the correlation coefficient is shown in **Table 2**:

**Table 2.** Coefficient Interval and Relationship Level

| Coefficient Interval | Relationship Level |
|----------------------|--------------------|
| 0.00 – 0.199         | Very low           |
| 0.20 – 0.399         | low                |
| 0.40 – 0.599         | Medium             |
| 0.60 – 0.799         | Strong             |
| 0.80 – 1.000         | Very Strong        |

*Source : (Sugiyono, 2010)*

The normality test aims to see whether the residual value is normally distributed or not. A good regression model is to have a normally distributed residual value. Detecting the normality of the data can be done with the Kolmogorov Smirnov test. It is said to be normal if the residual value generated is above the significance value set with the provisions, if the significance value  $> (<) 0.05$  then the data is normally distributed (not distributed). The multicollinearity test aims to see whether or not there is a high correlation between the independent variables in a multiple linear regression model (Nachrowi and Usman, 2006)

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The autocorrelation test is used to test whether the linear regression model correlates the confounding error in period  $t$  and the confounding error in period  $t-1$ . Determining the presence or absence of autocorrelation symptoms can be done by testing using the Durbin-Watson (DW Test). If the DW number is at  $DU < DW < 4-DU$ , it means that neither positive nor negative autocorrelation occurs. The heteroscedasticity test is used to see whether there is an inequality of variance and residual from one observation to another observation. Testing heteroscedasticity using the glejser test through regression of absolute residual value with independent variables. The basis for making decisions using the Glejser test is if the significance value  $> 0.05$ , it means there is no heteroscedasticity and if the significance value  $< 0.05$ , the heteroscedasticity symptoms occur (Nachrowi and Usman, 2006).



### 3. RESULTS

Based on descriptive analysis as shown in table 3, PT Barito Pacific Tbk. (BRPT) showed the highest average trading volume of 0.406, average trading frequency of 189.8624, and average stock return of 1.546 in 2015 - 2019. The second largest is TPIA with a trading volume value of 0.068, trading frequency of 124.7006, and stock return of 0.39. PTIA also has the largest market capitalization value of 844.66. UNIC is at the lowest position with an average trading volume of 0.01 and an average trading frequency of 5.8 but UNIC is the highest average stock return.

**Table 3.** The Average of Trading Volume, Trading Frequency, Market Capitalization and Stock Return

| <b>Ticker Code</b> | <b>Average Trading Volume</b> | <b>Average Trading Frequency</b> | <b>Average Market Capitalization</b> | <b>Average Stock Return</b> |
|--------------------|-------------------------------|----------------------------------|--------------------------------------|-----------------------------|
| BRPT               | 0.406                         | 189.8624                         | 455.56                               | 1.546                       |
| BUDI               | 0.022                         | 55.2                             | 3.96                                 | 0.1375                      |
| EKAD               | 0.036                         | 43.8                             | 5.06                                 | 0.285                       |
| INCI               | 0.044                         | 6                                | 0.76                                 | 0.31                        |
| SRSN               | 0.032                         | 34.4                             | 3.38                                 | 0.068                       |
| TPIA               | 0.068                         | 124.7006                         | 844.66                               | 0.39                        |
| UNIC               | 0.01                          | 5.8                              | 11.52                                | 0.39333333                  |
| Average            | 0.088285714                   | 65.68042857                      | 189.2714286                          | 0.44711904                  |

*Source : Processed Data (2021)*

Classical assumption test is used to examine whether the results of the regression equation have similarity values, consistent and precise. To get good regression test results, will be tested for normality, multicollinearity, the normality test, multicollinearity test, heteroscedasticity test and autocorrelation test. Using non-parametric statistical tests Kolmogorov – Smirnov, we found that with a significance of 0.200 is greater than 0.05 ( $0.200 > 0.05$ ). This means that the data is normally distributed. The results of the classical assumption test on three independent variables for tolerance values are 0.311, 0.185 and 0.358 are greater than 0.10 which indicates that there is no correlation between the independent variables. For the results of Variance Inflation Factor (VIF) on 3 independent variables with values of 3.215, 5.401 and 2.790 which are smaller than 10. So, it can be concluded that there is no multicollinearity in this study. Based on the results of the heteroscedasticity test, the test results show that the significance value for the trading volume variable ( $X_1$ ) is 0.921, the significance value for the trading frequency variable ( $X_2$ ) is 0.454 and the significance value for the market capitalization variable ( $X_3$ ) is 0.379. From the test results, the significance value of the three variables is greater than 0.05, so

according to the basis for decision making in the Glejser test, it can be concluded that there is no symptom of heteroscedasticity in the regression model.

Based on the results of the autocorrelation test, it is known that the Durbin--Witson (DW) test value is 2,343. To find out the upper limit value (dU) and lower limit value (dL) by looking at the Durbin-Witson table (DW) = 5%. The upper limit value (dU) is 1.6528 and the lower limit value (dL) is 1.2833. On the basis of decision making, it can be written that the autocorrelation test  $DU < DW < 4-DU$  is  $1.6528 < 2.343 < 4 - 1.6528$  (2.3472) which can be concluded that there is no autocorrelation between independent variables in the regression model so that this research can be carried out.

Using SPSS 25 software, we determine the effect of trading volume on stock returns. The results of the simple linear regression test are  $Y = 0,178 + 2,099 X1$ . The regression coefficient on trading volume (X1) is 2.099 shows that trading volume has a positive effect on stock returns. Every increase or decrease in trading volume by 1 unit, will result in an increase or decrease in stock returns of 2.099 and the significance value of 0.005 which is smaller than 0.05 ( $0.005 < 0.05$ ). It can be concluded that the stock trading volume variable has a significant effect on stock returns in chemical companies listed on the IDX from 2015 to 2019. Based on the correlation test, it can be seen that the coefficient value shows the results of 0.546 where the value lies between 0.40 - 0.599 which means that there is a moderate correlation coefficient between the trading volume and stock returns. Based on the results of the coefficient of determination test, the coefficient of determination (R<sup>2</sup>) is 0.298 or 29.8%. The value of the coefficient of determination shows that trading volume partially affects stock returns in chemical companies listed on the Indonesia Stock Exchange for the 2015-2019 period by 0.298 or 29.8% and 71.2% is influenced by other factors that cannot be explained in this study.

The relationship between trading frequency and stock returns can be written in the following regression equation:  $Y = 0.151 + 0.001X1$ . The regression coefficient on trading frequency (X2) is 0.000, which shows that trading frequency does not affect stock returns and the significance value of 0.001 show that the stock trading frequency variable has a significant effect on stock returns in chemical companies listed on the IDX in 2015-2019. Based on the correlation test, it can be seen that the coefficient value shows the results of 0.461 where the value lies between 0.40 - 0.599 which means that there is a moderate correlation coefficient between the trading volume and stock returns. Based on the results of the coefficient of determination test, the coefficient of determination (R<sup>2</sup>) is 0.213 or 21.3%. The value of the coefficient of determination shows that trading volume partially affects stock returns in chemical companies listed on the Indonesia Stock Exchange for the 2015-2019 period by 0.213 or 21.3% and 78.7% is influenced by other factors that cannot be explained in this study.

The relationship between Market Capitalization and stock returns can be written in the following regression equation:  $Y = 0.265 + 0,000 X3$ . The regression coefficient on market capitalization (X3) is 0.000 showing that trading volume has no positive effect on stock returns, it means that market capitalization by 1 unit, will result in an increase or decrease in stock returns of 0,000 and the significance value of 0.065. It can be concluded that the stock trading

volume variable has a significant effect on stock returns of 10%  $\alpha$  in chemical companies listed on the IDX in 2015-2019. Based on the correlation test, it can be seen that the coefficient value shows the results of 0.315 where the value lies between 0.20 - 0.399 which means that there is a low correlation coefficient between the trading volume and stock returns. Based on the results of the coefficient of determination test, the coefficient of determination (R<sup>2</sup>) is 0.10 or 1%. The value of the coefficient of determination shows that trading volume partially affects stock returns in chemical companies listed on the Indonesia Stock Exchange for the 2015-2019 period by 0.10 or 10% and 90% is influenced by other factors that cannot be explained in this study.

The relationship between trading volume, trading frequency, market capitalization as independent variables and stock returns can be written in the following multiple regression equation:  $Y = 0,123 + 0,866 X_1 + 0,000 X_2 + 0,000086 X_3$ . Based on the t-test, shows that none of the independent variables significantly affects the dependent variable, this is evidenced by the value greater than alpha. Based on the F test which significance value of  $0.008 < 0.05$ , can conclude that variables of trading volume, trading frequency, and market capitalization simultaneously can explain the effect on stock returns. The coefficient of determination of 0,311 showed that the three independent variables have a contribution value of 31.1%, which means that trading volume, trading frequency, and market capitalization affect stock returns by 31.1%, and the remaining 68.9% is influenced by other factors that are not described in this study.

**Table 4.** Multiple Regression Test Results and Hypotheses

| Model                 | Unstandardized Coefficients |            | Standardized Coefficients | T     | Sig. |
|-----------------------|-----------------------------|------------|---------------------------|-------|------|
|                       | B                           | Std. Error | Beta                      |       |      |
| (Constant)            | .123                        | .130       |                           | .941  | .354 |
| Volume Perdagangan    | .866                        | 1.216      | .190                      | .712  | .482 |
| Frekuensi Perdagangan | .000                        | .000       | .380                      | 1.096 | .281 |
| Kapitalisasi Pasar    | .000086                     | .000       | .052                      | .208  | .836 |

Source : Processed Data (2021)

The results of this study are in line with previous research conducted by Nasution, Sulistyono and Halim (2016) which states that in simple regression the trading volume variable has a significant effect on stock returns. These results are also in accordance with research conducted by Sustrianah (2020) which states that trading volume has a significant positive effect on stock returns. This is contrary to research conducted by Yusra (2019) which states that trading volume does not significantly affect stock returns. Trading frequency has a significant effect on stock returns this research result in line with previous research conducted by Nasution, Sulistyono and Halim (2016), but different with Taslim and Wijayanto (2016) which concluded that trading frequency has a significant negative effect on stock returns. This is contrary to research

conducted by Yusra (2019) which states that trading frequency does not significantly affect stock returns. It can be concluded that the frequency of trading is one of the factors in financial investment in the capital market. Stocks can be said to be liquid if they are easily sold or bought. Liquidity of can be seen from the frequency of trading. The higher the frequency of stock trading the more actively the stock is traded. The greater the number of trading frequency transactions will encourage high demand which causes stock prices to rise which will increase the stock returns received.

The market capitalization value significantly effect on stock returns, this result is different with research conducted by Sa'diyah, Amboningtyas and Gagah (2019) which states that there is no significant effect on market capitalization with stock returns. If the stock price falls, it will be followed by a small market capitalization and a declining stock return. Thus, a small market capitalization can make investors distrust the company whose stock or capital will be invested. And vice versa, if the market capitalization of the company is large, investors will believe that the company can meet the company's obligations both short and long term.

#### **4. CONCLUSION AND SUGGESTION**

Based on the results of research on the effect of trading volume, trading frequency and market capitalization on stock returns in chemical companies listed on the Indonesia Stock Exchange for the 2015-2019 period, this study can be concluded that through simple regression, trading volume, trading frequency and market capitalization have significant effect on stock returns in chemical sub-sector companies listed on the Indonesia Stock Exchange for the 2015-2019 period but using multiple regression all the independent variabels have no significantly effect on return market. The positive and significant relationship between trading volume, trading frequency and market capitalization on stock returns can be interpreted that the increase in the return of a stock is largely determined by market mechanisms. The more actively a stock is traded, the more trading volume, trading frequency and market capitalization will increase, which in turn can increase stock prices and stock returns.

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