The Effect of Stock Price, Stock Liquidity and Trading Volume on Stock Split on Companies Listed on IDX in 2015-2020

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ABSTRACT

This study aims to determine and analyze the effect of stock prices, stock liquidity, and trading volume on stock splits in companies listed on the IDX in 2015-2020. This research is a quantitative research with research sampling method using purposive sampling method. The data analysis method in this study used logistic regression analysis with the help of SPSS 16.0 software. The sample used is 41 companies during the 2015-2020 period. The source of data used in this research is secondary data in the form of the company's annual financial report. The results showed that partially the stock price variable had no significant positive effect on the stock split. The stock liquidity variable partially has a significant positive effect on the stock split. The stock trading volume variable partially has no significant negative effect on the stock split.

INTRODUCTION

Recently, several large companies have carried out stock split actions. The main purpose of a stock split is to place the stock in a more attractive trading range, which is expected to attract more buyers (Nur., 2017). This stock split action is categorized as a corporate action, which is a corporate action is an issuer's activity that provides benefits to investors, this activity can affect the structure, ownership, position, price of securities, and the number of securities circulating in the market (Siti & Hanafiah, 2020). A stock split is often referred to as a split per share into several shares. Stock split information can be considered by investors to determine whether to buy or not to buy the shares (Iskamto, 2015; Jayaprawira et al., 2022; Sukmadewi, 2021; Tanoyo, 2018). However, according to (Priatno & Freddy, 2021) stated that the stock split actually has no economic value or it can be said that the stock split does not add to the value of a company's shares. From the statement above, there are two opinions, namely the stock split has an effect on the stock and another opinion states that the stock split does not have a major influence on the stock.

One of the factors that can affect the stock split policy is the high level of stock prices. Companies that have high share prices reflect good company value, on the other hand companies that have low share prices reflect poor company values. However, stock prices that are too high will be a problem for the company. This is because the high stock price will reduce the interest of investors in the stock (Tanoyo, 2018). Research conducted by (Puspita, 2018) states that stock prices have an influence on
the company's decision to do a stock split. In contrast to the research conducted by (Handayani & Yasa, 2017) stated that the level of price expensiveness has no influence on the company's decision to do a stock split.

Judging from the existence of a stock split event that can keep the stock price in a position that can be reached by investors, it is estimated that the company will conduct a stock split, namely to increase stock liquidity. Stock price liquidity is very important for companies that offer their shares. Trading activities in the capital market carried out by investors and issuers will affect the level of liquidity of the stock price (Amin, 2020). Research conducted by (Munthe, 2017) stock split decision making by companies. This is different from the research conducted by (Liyas & Adrianto, 2022; Puspita, 2018; Sukmadewi et al., 2021) stock split decision making by the company.

Another motivation that can make companies have to do a stock split is by looking at the level of trading volume of a stock. Increasing trading volume can be done by implementing a stock split policy, because the stock split policy can make stock prices that used to have high prices can be replaced with cheaper prices by splitting the number of shares outstanding. (Jayanti & Fattah, 2021). Research conducted by (Maulana et al., 2021) in their research stated that there was no significant difference in stock trading volume before and after the stock split. In contrast to the research conducted by (Adhiwijaya, 2018) which states that the volume of stock trading has differences before and after the stock split.

Based on this description, it can be concluded that the relationship between factors on stock split decision making cannot be concluded because it has different results.

**LITERATURE REVIEW**

**Signaling Theory**

According to (Endiana & Suryandari, 2021) signaling theory is a notification in the form of information about the condition of the company and conveyed to investors, potential investors, creditors where the information is a form of signal from the condition of the related company.

**Trading Range Theory**

Trading range theory is a theory that describes how stock splits can have an effect on increasing company liquidity (Indrayani et al., 2020). According to (Hadiwijaya, 2018) the trading range theory explains the purpose of the company doing a stock split, namely to maintain the stock price range so that it can increase investors' purchasing power for the shares that have been issued.

**Stock Split**

Stock Split or stock split according to (Maulana et al., 2021) namely issuers who take action to separate the nominal shares to be cheaper and the number of shares outstanding increases than before the issuer took a stock split policy in accordance with the split factor.

**Stock price**

According to (Endiana & Suryandari, 2021) the stock price is the nominal price set for a company by taking into account the profits of the company. According to (Suryana & Surtikanti, 2020) the share price is the nominal price of an issuer which can be determined when the capital market takes place and the closing price will be determined when the capital market closes.

**Stock Liquidity**

According to (Sulaiman & Darwis, 2020) stock liquidity is about how well a company can sell shares at a price that matches its fair value. Stock liquidity can be formed from the existence of a stock
supply and demand mechanism. The more market participants are interested in stocks, the stock prices will be pushed up (Amaliyah & Aminah, 2020).

Trading Volume
According to (Merthadiyanti & Yasa, 2019), stock trading volume is the level of demand and supply by investors for the shares of an issuer. Stocks that have good quality and value can be seen from how large the trading volume of the issuer's shares is, if the stock trading volume is high, it means that the shares of the issuer are favored by investors.

METHOD
This research was conducted on data that has been listed on the IDX with the specifications of all companies listed on the IDX in 2015-2020. This study uses secondary data in the form of finished data sourced from BEI, Yahoo Finance, and so on. Collecting data using documentation study. The data analysis model used logistic regression, with the $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3$. Tests were carried out using descriptive statistical analysis, regression model feasibility test, multicolinearity test, logistic regression model, partial test (wald), and coefficient of determination (Nagelkerke's Rsquare), as well as data processing using SPSS v.16 program.

RESULTS AND DISCUSSION
Descriptive Statistical Analysis

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Split</td>
<td>246</td>
<td>0</td>
<td>1</td>
<td>0.17</td>
<td>0.373</td>
</tr>
<tr>
<td>Stock price</td>
<td>246</td>
<td>-550.59</td>
<td>1711.11</td>
<td>19.2716016</td>
<td>124.23151</td>
</tr>
<tr>
<td>Stock Liquidity</td>
<td>246</td>
<td>0</td>
<td>0.9874359</td>
<td>0.5172</td>
<td>0.21386</td>
</tr>
<tr>
<td>Trading Volume</td>
<td>246</td>
<td>0.000003</td>
<td>3.0595583</td>
<td>0.1252</td>
<td>0.3251137</td>
</tr>
</tbody>
</table>

Source: Data processed with SPSS, 2022

In the table above, it can be seen that the results of the amount of data used in this study were 246 data originating from 41 companies listed on the IDX in 2015-2020. The stock price variable measured using the PER ratio has a minimum value of -550.59 and a maximum value of 1711.11 with an average value of 19.271 and a standard deviation of 124.23151. The stock liquidity variable as measured by the bid-ask spread ratio has a minimum value of 0 and a maximum value of 0.987 with an average value of 0.5172 and a standard deviation of 0.213. The trading volume variable measured using the TVA ratio has a minimum value of 0.00033 and a maximum value of 3.0595583 with an average value of 0.1252 and a standard deviation of 0.3251137. The dependent variable, namely the stock split variable, has a minimum value of 0 and a maximum value of 1 with an average value of 0.17 and a standard error of 0.373.

Table 2 Dependent Variable Encoding

<table>
<thead>
<tr>
<th>Original Value</th>
<th>Internal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>The company does not stock split</td>
<td>0</td>
</tr>
<tr>
<td>Stock split company</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Data processed with SPSS, 2022
The table 2 above describes the dependent variable code, where the category “Companies not stock split ” is symbolized by code 0 and the category “Companies with stock splits” is symbolized by code 1.

Feasibility Test of Regression Model
Hosmer's Test and Lemeshow's Test of Goodness Of Fit

<table>
<thead>
<tr>
<th>Step</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10,729</td>
<td>8</td>
<td>0.218</td>
</tr>
</tbody>
</table>

*Source*: Data processed with SPSS, 2022

Based on the table 3 above, obtained from logistic regression analysis shows that the results of the Hosmer and Lemeshow Test obtained a chi-square value of 10.729 with a significance level of 0.218. These results indicate that the probability value > 0.05 (significance value) is 0.218 > 0.05, then \( H_0 \) is accepted. This indicates that there is no significant difference between the model and the data so that the regression model in this study is feasible and able to predict the value of the observations.

Loglikelihood Value Test

<table>
<thead>
<tr>
<th>Iteration</th>
<th>-2 Logs likelihood</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Constant</td>
</tr>
<tr>
<td>Step 0</td>
<td>1</td>
<td>-1,333</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>-1.587</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>-1.609</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>-1.609</td>
</tr>
</tbody>
</table>

*Source*: Data processed with SPSS, 2022

Based on table 4 obtained from the results of the regression analysis of 221,676. After the three independent variables were included, the final -2Log Likelihood value or in table 5 decreased to 111,200. The difference between the initial -2Log Likelihood and the final -2Log Likelihood showed a decrease of 110.476. It can be concluded that the initial -2Log Likelihood value is greater than the

final -2Log Likelihood value, resulting in a decrease. This indicates that the hypothesized model fits the data, so the addition of independent variables into the model indicates that the regression model is getting better or in other words H_0 is accepted.

**Multicollinearity Test Results**

**Table 6 Tolerance and Variance Inflation Factor (VIF)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.000</td>
</tr>
<tr>
<td>Stock price</td>
<td>0.891</td>
</tr>
<tr>
<td>Stock Liquidity</td>
<td>0.990</td>
</tr>
<tr>
<td>Trading Volume</td>
<td>0.882</td>
</tr>
</tbody>
</table>

Source: Data processed with SPSS, 2022

In table 4.6 it can be seen that variable X_1 has a VIF value of 1.123, variable X_2 has a VIF value of 1.010, variable X_3 has a VIF value of 1.133. This shows that the VIF value of the variables X_1, X_2, and X_3 has a lower value than 10, so it can be concluded that there is no multicollinearity between variables.

**Logistics Regression Test Results**

**Table 7 Variables in the Equation**

<table>
<thead>
<tr>
<th>Step</th>
<th></th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95.0% CIfor EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Stock price</td>
<td>0.002</td>
<td>0.004</td>
<td>0.279</td>
<td>1</td>
<td>0.597</td>
<td>1.002</td>
<td>0.994 - 1.01</td>
</tr>
<tr>
<td></td>
<td>Stock Liquidity</td>
<td>11.621</td>
<td>1.606</td>
<td>52.372</td>
<td>1</td>
<td>0.000</td>
<td>1.1139</td>
<td>4.787 - 2.592</td>
</tr>
<tr>
<td></td>
<td>Trading Volume</td>
<td>-1.599</td>
<td>1.007</td>
<td>2.522</td>
<td>1</td>
<td>0.112</td>
<td>0.202</td>
<td>0.028 - 1.454</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-8.909</td>
<td>1.163</td>
<td>58.656</td>
<td>1</td>
<td>0.000</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Source: Data processed with SPSS, 2022

Based on the results of the logistic regression test from table 7 above, the logistic regression equation obtained is as follows:

\[
\text{Stock Split} = 0 + 1 \times X_1 + 2 \times X_2 + 3 \times X_3 \\
= -8.909 + 0.002 \text{PER} + 11.621 \text{Bid Ask Spread} - 1.599 \text{TVA}
\]

From the logistic regression equation, it can be analyzed the effect of the independent variable on the dependent variable, including the constant value (α) of -8.909, meaning that if the independent variable is ignored, the chance of a stock split will decrease. The stock price variable with the PER ratio has a positive coefficient value of 0.002, meaning that every increase in PER will increase the chance of a stock split. The stock liquidity variable with the bid-ask spread ratio has a positive coefficient value of 11.621, meaning that every increase in the bid-ask spread will increase the chance of a stock split. The trading volume variable with the TVA ratio has a negative coefficient value of -0.068 which means that every increase in TVA will reduce the chance of a stock split.

**Partial Test Results (Wald)**

**Table 8 Wald Test**

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>SE</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95.0% CIfor EXP(B)</th>
</tr>
</thead>
</table>

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With the number of observations \( n = 246 \) and the number of independent and dependent variables \( k = 4 \), the degree of freedom \( (df) = nk - 4 = 242 \), where the significance level is \( = 0.05 \). With a \( t \) table of 1.969815. The first hypothesis \( (H_1) \) is that stock prices have a positive effect on stock splits. The results of the wald test \( (t) \) show that the \( t - count \ value \) is smaller than the \( t - table \) \( (0.279 < 1.969815) \) with a significance value of 0.597 > 0.05. Based on the test results, it can be concluded that \( H_1 \) rejected. The second hypothesis \( (H_2) \) is that stock liquidity has a positive effect on the stock split. The results of the Wald test \( (t) \) show that the \( t - count \ value \) is greater than the \( t - table \) \( (52.372 > 1.969815) \) with a significance value of 0.000 <0.05. Based on the test results, it can be concluded that \( H2 \) accepted. The third hypothesis \( (H_3) \) is that trading volume has a negative effect on the stock split. The results of the wald test \( (t) \) show that the value of \( t - count \) is greater than \( t - table \) \( (2.522 > 1.969815) \) with a significance value of 0.112 > 0.05. Based on the test results, it can be concluded that \( H_3 \) rejected.

CONCLUSION

The stock price as measured by the Price Earning Ratio (PER) is not proven to have a significant positive effect on the stock split. This shows that companies that have high or low stock prices have no effect on the company's decision to do a stock split. The stock liquidity variable as measured by the bid-ask spread ratio is proven to have a significant positive effect on the stock split. This shows that a company that has stock liquidity calculated using a high bid-ask spread proxy will most likely do a stock split, on the other hand, if a company has stock liquidity calculated using a low bid-ask spread proxy, the company will not do a stock split. The trading volume variable measured using the Trading Volume Activity (TVA) ratio was not proven to have a significant negative effect on stock splits. This shows that companies that have high or low trading volumes have no influence on the company's actions to carry out a stock split.

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