FACTORS AFFECTING STOCK RETURNS IN THE SUB-SECTOR COMPANIES OF FOODS AND BEVERAGES LISTED ON THE INDONESIA STOCK EXCHANGE

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ABSTRACT

Return is a result expected by investors when investing. This research aims to learn the effect of variable Debt to Asset Ratio, Total Asset Turn Over, Return on Asset, and Earning Per Share variables on Stock Return on the sub-sector companies of food and beverages listed on the Indonesia Stock Exchange period 2015-2019. The population that is used for this research amounts to 29 companies. The sampling technique used is the purposive method sampling, which led to the choosing of 17 companies that are used as the research sample. The methods that are used are descriptive and verificative methods with multiple panel data regression tests and Eviews program. The result of the analysis shows that Total Asset Turn Over has a positive impact on stock returns, while the Debt Asset Ratio, Return on Asset, and Earning per Share do not have an impact on stock returns.

Keyword: Stock Return, Debt to Asset Ratio, Total Asset Turn Over, Return on Asset, and Earning per Share

1. Introduction

The capital market is one of the indicators that reflects a country experiencing economic progression. The growth of the capital market in Indonesia is currently growing rapidly, this is marked by the increase of companies being listed on the Indonesia Stock Exchange (ISE).

Stock is one part of the many instruments in the capital market, where investors invest their funds by buying company shares. There are aspects to consider when trying to invest in the capital market in the form of shares in order to ensure benefits. The advantages of investing in the capital market can be reflected through stock returns, where the return is the result of stock investment (Jogiyanto, 2017). A positive stock return means gaining profit (capital gain), while a negative stock return means experiencing a loss (capital loss). In general, an investor will choose stocks that provide high returns, because the purpose of an investor when it comes to investing is to maximize return and also pay attention to investment risk factors that will be faced (Tandelilin, 2010).

According to the Ministry of Industry and the Republic of Indonesia, food and beverages companies are one of the sub-sectors that occupy a strategic position and play an important role in the economic growth in Indonesia (Susanto, 2016). The food and beverages industry is the main sub-sector that supports manufacturing growth and the national economy. The contribution of food and beverages is consistent and significant towards Gross Domestic Product (GDP) in Indonesia.
According to Indonesia's Association of Food and Beverages Entrepreneurs in the year 2015, stock returns in the food and beverages sector experienced a rather significant decrease, the main influence of this is due to the decrease of Foreign Direct Investment (FDI). One of the factors of the decrease is the lack of interest from foreign investors to buy stocks in the food and beverages sub-sector, which affected the stock returns (Adhi S, 2015).

The following paragraph shows the average development of debt asset ratio (DAR), total asset turnover (TATO), return on asset (ROA), earning per share (EPS), and stock returns.

Based on the graph above, it shows that the development experienced a decrease from 0.56 times to 0.49 times, while in the year 2018-2019 stock returns have decreased from 0.49% to -2.96%. Based on this explanation, it can be seen that the influence of DAR towards stock returns from the year 2018 to 2019 is not in line with theory that explains if the value of DAR decreases, the value of stock returns will increase (Hadi, 2015).

The development of TATO in 2015-2016 experienced a decrease from 1.07 times to 1.04 times, while in 2015-2016, stock returns experienced an increase from -6.06% to 20.39%. Therefore, the influence of TATO to stock returns in 2015-2016 is not in line with the theory that explains if TATO rises, stock returns will rise and vice versa. Because if the ratio value of TATO is high, there will be more efficient use of assets in a company which will result in the increase of the company's income (Horne and Wachowicz, 2013).
Development of ROA in 2016-2019 experienced a decrease and increase from 13.90% to 7.60% and from 6.95% to 14.28%. Meanwhile in 2016-2019, stock returns experienced an increase which is followed by a decrease from 20.39% to 21.50% and from 0.49% to -2.96%. Therefore, the influence of ROA toward stock returns in 2016-2019 is not in line with theory that explains that if the ROA rises then the stock return will rise as well (Kasmir, 2016).

The development of EPS in 2015-2019 also experienced a decrease which is followed by consecutive increases which is Rp. 895.21, Rp. 220.13, Rp. 129.41, Rp. 145. Rp. 205. While in 2015-2019, stock returns experienced an increase followed with consecutive decreases such as -6.06%, 20.39%, 21.50%, 0.49%, -2.96%. Therefore, the influence of EPS towards stock returns in 2015-2019 is not in line with the theory that explains if the rise in EPS will also lead to the rise of stock returns (Brigham and Houston, 2018).

Research on stock returns has been widely done, but from previous researches, there are different results regarding the influence of DAR, TATO, ROA, and EPS regarding stock returns. The results of research done by Sari, Siregar, Tarigan, and Inrawan (2018) shows that DAR has a negative impact on stock returns because debt that is used by the company is bigger to finance its assets, but the company is unable to increase the profits earned and therefore, cannot increase the stock prices and stock returns do not increase. Research done by Rohpika and Fhitri (2017), shows that DAR does not have an influence on stock returns. This is because investors do not consider debt as a threat when they invest their shares. If a company uses debt that increase the company infrastructure, it can be an advantage for the investors in the future. Therefore, DAR does not cause a change in stock returns.

Sausa, Korawijayanti, and Ciptaningsih (2020) in their research found that TATO has a positive impact on stock returns. This happens because of the ability of the company to optimize the entirety of its assets effectively and efficiently to bring in revenue for the company, which attracts investors to buy company shares. When a lot of investors invest their shares, the price will increase and the stock returns will also rise. This research is in line with the result of the research done by Boentoro and Widyarti (2018) which showed that TATO has a positive impact on stock returns, due to the efficiency of the company that is measured by TATO can give important information for investors in making safe investments especially in stocks that are defensive. Meanwhile, the results of another research done by Pratama and Idawati (2019) shows that TATO has a negative impact on stock returns, because, during the observation period, most companies on average was able to gain a high TATO but not a larger net profit, causing investors to lose interest in buying the company shares because the company is unable to generate high stock returns.

The result of research done by Sausan et al., (2020) shows that ROA does not have an impact on stock returns. The reason for this is because the value of ROA that is too high will not attract investors in the capital market, poor economic conditions will also cause the decrease of stock returns even if the ROA increases. Therefore, the fluctuating value of ROA does not have a potential to attract investors to invest their capital. Meanwhile, research done by Rachmawati (2019) shows that ROA has a positive impact on stock returns. This is caused by the ability of the company that is capable of managing its assets effectively and efficiently to generate profit. This gives a chance for investors to receive a high stock return and investors will be interested to buy these shares, which causes the stock returns in the market to rise.

The result of research done by Azzahra and Sutanto (2016) shows that EPS has a positive impact on stock returns. This is because of the increase of post-tax profit generated by the company which also causes the return received by the shareholders will also increase. Meanwhile the result of research done by Simamora and Ningsih (2020) shows that EPS does not have an impact on stock returns. This is partially due to the investor’s want to receive short-term profits in the form of capital gain from their investments, which means that in considering the purchase of shares, the investor does not look at the company’s EPS.

Investment is the delay of consumption at a current time in order to include it in assets or productive production processes where the result will be consumed or enjoyed in the future (Jogiyan, 2017). The purpose of investment is to gain return, and to increase welfare for the investors in a monetary form which can be measured by adding the current income and the future income (Tandellilin, 2017).

According to Tandellilin (2010), stock returns are one of the factors that can be motivation for investors in investing. Stock returns can be divided into two which are realized return and expected return. Realized return is
A return that has happened and is calculated based on historical data, while an expected return is a return that is expected in the future and this return is uncertain. The formula for stock return is:

\[ \text{Stock return} = \frac{P_t - P_{t-1}}{P_{t-1}} \]

According to Sutrisno (2017), DAR is the ratio of total debt with total assets which is commonly referred to as debt ratio, which is to measure the percentage of funds that came from debt. According to Ristyawan (2019), DAR is the measurement used in analyzing financial statements to find out the number of guarantees available to the creditors. The lower the DAR, the better the security level of the company's funds and this will increase the profit gained by the company. With the increase of company profit, a creditor's guarantee for repayment of loans provided by the company will be bigger. The formula for debt asset ratio is:

\[ \text{Debt to Assets Ratio (DAR)} = \frac{\text{Total Debt}}{\text{Total Assets}} \times 100\% \]

Activity ratio is a financial ratio that is used to measure the ability of a company is using its funding sources. This ratio is expressed by comparing between the sales with its elements of assets. The better a company manages its funds, the quicker the company's asset turnover. One of the ratios that companies use is TATO (Sutrisno, 2017). The formula for TATO is:

\[ \text{Total Asset Turn Over (TATO)} = \frac{\text{Sale}}{\text{Total Assets}} \]

ROA is used to measure the ability of a company in managing its assets to gain profit, and is also used to see the company's performance in utilizing the number of assets owned by the company. A large ROA shows good company performance in generating profits which will attract investors to invest in the company and buy company shares which will increase the price of stock and stock returns (Kasmir, 2016). ROA formula is as such: (Brigham and Houston, 2018):

\[ \text{Return On Asset (ROA)} = \frac{\text{Net Profit}}{\text{Total Asset}} \times 100\% \]

EPS is the amount of money that will be gained by investors from each share, the bigger the EPS of a company, it will be more advantageous for the shareholders. An investor will be highly attracted to the large amount of profit that will be generated if they invest funds in the company. The high value of EPS will cause the high demand for company shares which will have an impact on the stock price, which eventually will increase the stock price as well as stock returns (Brigham and Houston, 2018). Formula for EPS is (Sutrisno, 2017):

\[ \text{Earning Per Share (EPS)} = \frac{\text{EAT}}{\text{Number of shares}} \]

**Influence of DAR on Stock Returns**

High value of DAR can show the increasing risk of a company, because the amount of debt used by the company gets bigger. This can decrease the interest of investors towards company shares because the return generated is smaller. If the interest of investors decrease, it will cause a decrease in stock prices and the decrease in stock prices will also decrease the stock return (Hadi, 2015). Therefore, DAR has a negative impact on stock returns.

Previous research about the effect of DAR towards stock return has been done plenty of times, including research done by Sari, Siregar, Tarigan, and Inrawan (2018) which shows that DAR has a negative impact towards stock return. Another research done by Rophika and Fhitri (2017), states that DAR does not have an impact on stock returns.

**Influence of TATO on Stock Returns**

The higher value of TATO can show the effectiveness of a company is using its assets, which will impact the amount of profit gained by the company. The higher profit will attract investors to invest in a company, which will increase stock prices as well as stock returns gained (Home and Wachowicz, 2013). Therefore, it can be stated that TATO has a positive impact on stock returns.
Several researchers conducted research to examine the relationship between TATO and stock returns, including Sausan et al., (2020) found that TATO has a positive impact on stock returns. Research that is done by Boentoro and Widyarti (2018); Salamat and Mustafa (2016), states that TATO has a positive impact on stock returns. Meanwhile, research done by Pratama and Idawati (2019), shows that TATO has a negative impact on stock returns and the findings of Defawanti and Paramita (2018), TATO has no impact on stock returns.

**Influence of ROA on Stock Returns**

According to Sutrisno (2017), ROA is a ratio used to measure the ability of company to gain profit by utilizing all of its assets. Higher ROA shows that the company is able to manage its assets well and generate profit. If the profit generated is large, investors will be attracted to invest their funds in the company. Most investors that buy company shares will affect the increase in stock prices, which will also increase the stock returns (Kasmir, 2016).

Salamat and Mustafa (2016) conducted research and found that ROA has a positive impact on stock returns. Marito and Sjarif (2020), states that ROA has a positive impact on stock returns. Meanwhile, research was done by Defawanti and Paramita (2018); Sausan et al., (2020) states that ROA does not have an impact on stock returns.

**Influence of EPS on Stock Returns**

The higher EPS value of a company will be more beneficial for shareholders. With a larger earning per share more investors will be attracted to invest their funds in the company. Therefore, higher EPS will cause the rise in demand for company shares which will impact the increase in stock prices. The increase in stock prices will affect the increase in stock returns (Brigham and Houston, 2018). Therefore, EPS has a positive impact on stock returns.

In the study of econometrics (Ghazali, 2017) there are several types of data including time series data, cross-section, as well as a combination of both that is named panel data (pooled data).
The data used is annual data with a research period starting from 2015-2019. Analytical tools used are multiple regression data panels with the Eviews program. The regression equation is:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon_i t \]

3. Result and Discussion

Table 1. Descriptive result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Highest value</th>
<th>Lowest value</th>
<th>Average value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock return</td>
<td>257.14</td>
<td>-79.17</td>
<td>6.67</td>
</tr>
<tr>
<td>Debt asset ratio</td>
<td>2.90</td>
<td>0.04</td>
<td>0.49</td>
</tr>
<tr>
<td>Total asset turn over</td>
<td>3.10</td>
<td>0.05</td>
<td>1.03</td>
</tr>
<tr>
<td>Return on asset</td>
<td>95.8</td>
<td>-9.71</td>
<td>9.85</td>
</tr>
<tr>
<td>Earning per share</td>
<td>11895</td>
<td>-171.47</td>
<td>318.93</td>
</tr>
</tbody>
</table>

Source: data processed, 2020

Stock returns have an average value of 6.67 which means that stock prices will increase from the previous year which means investors will benefit, while negative stock returns mean the company is experiencing loss in which the stock prices will also decrease from the previous price. The DAR average of 0.49 means that the debt is smaller than the total assets which mean the company is low risk, where companies with DAR values above 1 mean it is a high-risk company, where the debt is bigger than the assets. The average TATO value is at 1.03 which means the company is effective in managing its assets to generate sales. Positive EPS values mean the company is gaining profit, while negative EPS values mean the company is undergoing losses.

Estimated Test Results

The regression analysis was done to know the effects of independent variables which are a debt to asset ratio, total asset turn over, return on asset, and earning per share towards the dependent variable which is stock returns. The regression model data panel that is chosen to be used for the research is the common effect model which leads to the ability for the classical assumption test to be carried out. However, not all classical assumption test is done to test data panel, only the multicollinearity and heteroscedasticity test is done (Basuki, 2017).

The following table is the regression test results based on the common effect method:

Table 2. Regression test results table

<table>
<thead>
<tr>
<th>Variable</th>
<th>Common Effect Coefficient</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-4.395474</td>
<td>0.6721</td>
</tr>
<tr>
<td>Debt To Asset Ratio</td>
<td>-16.17896</td>
<td>0.1866</td>
</tr>
<tr>
<td>Total Asset Turn Over</td>
<td>16.85624</td>
<td>0.0169</td>
</tr>
<tr>
<td>Return On Asset</td>
<td>0.294576</td>
<td>0.2937</td>
</tr>
<tr>
<td>Earning Per Share</td>
<td>-0.004026</td>
<td>0.2407</td>
</tr>
<tr>
<td>R-Squared</td>
<td>0.111379</td>
<td></td>
</tr>
<tr>
<td>Adj R-Squared</td>
<td>0.066948</td>
<td></td>
</tr>
<tr>
<td>F-Statistic</td>
<td>2.506779</td>
<td></td>
</tr>
<tr>
<td>Prob (F-Statistic)</td>
<td>0.048470</td>
<td></td>
</tr>
</tbody>
</table>

Source: data processed, 2020

Based on the table above, which is the result of regression analysis using the common effect method, the specifications of the research model obtained can be expressed in the following equation:

\[ \text{Stock return} = -4.395474 - 16.17896 \text{DAR} + 16.85624 \text{TATO} + 0.294576 \text{ROA} - 0.004026 \text{EPS} + \epsilon \]
Factors Affecting Stock Returns

Classic Assumption Test

The result of the classic assumption test shows that there is no multicollinearity where each independent variable which has a correlation coefficient matrix value of < 0.90. The heteroscedasticity test also shows that the probability value of each variable is more than 0.05 which means the model does not contain heteroscedasticity.

Table 3. Multicollinearity test results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Decision correlation coefficient matrix test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DAR 1,0000000 0,012904 0,147605 1,000000 0,133856</td>
<td>Free of multicollinearit</td>
</tr>
<tr>
<td></td>
<td>TATO -0,20005 1,000000 0,147605 0,120753</td>
<td>Free of multicollinearit</td>
</tr>
<tr>
<td></td>
<td>ROA 0,012904 0,147605 1,000000 0,133856</td>
<td>Free of multicollinearit</td>
</tr>
<tr>
<td></td>
<td>EPS -0,109870 0,120753 0,133856 1,000000</td>
<td>Free of multicollinearit</td>
</tr>
</tbody>
</table>

Table 4. Table of results of heteroscedasticity test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Probability</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAR</td>
<td>0.7651</td>
<td>Free of heteroscedasticity</td>
</tr>
<tr>
<td>TATO</td>
<td>0.1079</td>
<td>Free of heteroscedasticity</td>
</tr>
<tr>
<td>ROA</td>
<td>0.1207</td>
<td>Free of heteroscedasticity</td>
</tr>
<tr>
<td>EPS</td>
<td>0.5784</td>
<td>Free of heteroscedasticity</td>
</tr>
</tbody>
</table>

Influence of Debt to Asset Ratio on Stock Returns

Based on the table of regression test results, it can be seen that DAR does not have an impact on stock returns, this can be seen by the p-value 0,1866 < from the alpha of 0,05, which is not in accordance with the hypothesis that DAR has a negative impact on stock returns.

DAR is a ratio that is used to measure how much debt the company uses to finance its assets, therefore DAR can be used as one of the factors of consideration when it comes to making investments because companies with less debt usually will have a higher return for investors. However, in this research DAR does not have an impact on stock returns, this is caused by the strategies of the companies in the sub-sector of food and beverages when it comes to funding which is related to the capital structure theory which is pecking order which explains that in doing its operational activities, company managements prefer to use capital from within the company in the form of retained earnings and does not recommend using capital from outside the company such as debt. It is suspected that the capital derived from this debt will have a less favorable influence towards the company's value in the future because the debt will carry risks if the company is unable to pay the debt. Therefore, it can be identified that DAR does not have an impact on stock returns.

The result of this research is in line with the findings of Rophika and Fhitri (2017), Dewi et al., (2017), and the research of Ristyawan (2019) which states that DAR does not have an impact on stock returns. However, these findings are not in line with the findings of Sari et al., (2018); Winedar (2020) which states that DAR has a negative influence on stock returns.

Influence of Total Asset Turn Over on Stock Returns

Based on the table of regression test results, it can be seen that TATO has a positive impact on stock returns. This can be seen by the coefficient value of 16,85624 and the p-value of 0,0169 < from the alpha of 0,05, then H0 is rejected which means TATO has a positive impact on stock returns. The coefficient value of 16,85624 shows that every TATO increases over time, it will affect stock returns that will experience a 16,85624 times increase. In other words, every stock return requires a TATO variable of 16,85624.

The amount of TATO owned by a company in its sales activity can explain the stock return that will be received by the investors. Higher TATO will show that a company is able to optimize the entirety of assets it has well in order to generate profit for the company. This can attract investors to buy company shares and the stock price of the company will rise followed by stock returns increase.
The results of this study are in line with the findings of Sausan et al., (2020); Boentoro and Widyarti (2018); and Salamat and Mustafa (2016) which states that TATO has a positive impact on stock returns. This is due to the ability of the company to optimize the entirety of its assets effectively and efficiently in generating profit for the company, which leads investors to be attracted to buy the company's shares. When a lot of investors invest their funds, it will affect the stock prices which will increase the stock returns. A different finding is shown by Pratama and Idawati (2019) which states that TATO has a negative impact on stock returns.

**Influence of Return on Asset on Stock Returns**

Based on the table of regression test results, it can be seen that ROA does not have an impact on stock returns. This can be seen by the p-value of 0.2937 > from the alpha of 0.05, this is not in line with the research hypothesis that ROA has positive impacts on stock returns.

Companies use ROA as a measuring tool to see the ability of a company in generating profit, where investors will consider their investments by looking at the company's performance in generating profit. However, the result of this research shows that ROA does not have an impact on the number of stock returns. This can be expected due to the poor economic conditions which also affect the decrease in stock returns even when the ROA increases and vice versa. It can be seen that during the period of 2015-2019, the value of ROA is highly fluctuating, which makes the fluctuating value have less potential in attracting investors to invest their capitals. Therefore, this can be a reason why ROA does not affect stock returns.

The result of this research is in line with the research done by Sausan et al., (2020), Atidhira and Yustina (2017), and Defawanti and Paramita (2018) that ROA does not have an impact on stock returns. However, this result is not in line with the research done by Christina and Dewi (2020) and Salamat and Mustafa (2016) which states that ROA has a positive impact on stock returns.

**Influence of Earning per Share on Stock Returns**

Based on the table of regression test results, it is known that EPS does not have an impact on stock returns, this can be seen through the p-value of 0.2407 > from alpha 0.05, this is not in line with the research hypothesis which states that EPS has a positive impact on stock returns.

EPS is used to measure the performance and growth of a company in a specific amount of time by comparing the net profit with the number of shares. The result of this research states that EPS does not have an impact on stock returns, this is due to the value of EPS that is fluctuating. When the EPS value is decreasing, it can cause investors to lose interest in investing their funds in the company because of the lack of stability of the company in generating profit, specifically earnings per share. Other than that, there are investors who are interested in short-term profit which is capital gain of the result of their investment when doing a purchase of the share the investor will not look at the EPS of a company. This causes EPS to not have an impact on stock returns.

The result of this research is in line with the findings of Sausan et al., (2020), Salamt and Mustafa (2016), Defawanti and Paramita (2018), Simamora and Ningsih (2020), and Jaya (2015), that EPS does not have an impact on stock returns. However, this is not in line with the result of research done by Azzahra and Susanto (2016) and Anggraini et al., (2019) that EPS has a negative impact on stock returns.

**Influence of DAR, TATO, ROA, and EPS Simultaneously on Stock Returns**

Based on the table of results of the regression test (F test) it is known that DAR, TATO, ROA, and EPS simultaneously have an impact on stock returns. This can be seen from the probable value that is generated as 0.048479, where the value is smaller than the alpha 0.05 (0.048470 < 0.05), which means the hypothesis is acceptable.

The amount of ability of dependent variables in explaining the variations of dependent variables can be known through the value of Adjusted R-squared. The value of Adjusted R-squared is used in this research because the independent variables used in this research are more than two. The value of Adjusted R-squared that is generated from this research is 0.066948 or 6.69%. This shows that approximately 6.69% of changes from stock returns can be explained due to the changes in independent variables, while the other 93.31% is influenced by other variables which are not researched in this research.
4. Conclusion and Implication

Based on the average condition of DAR, TATO, ROA, EPS, and stock returns during the observation period, it is concluded that values of each variable experienced fluctuation. Debt to Asset Ratio (DAR) does not have an impact on stock returns, because if the company uses debt to increase the funding of infrastructure and the company's operational costs, it can be beneficial for investors in the future.

Total Asset Turn Over (TATO) has a positive impact on stock returns, because high value of TATO will show the capabilities of the company to optimize the usage of its assets in generating sales that generate profit, attracting investors to invest their funds so that the stock prices and stock returns increase.

Return on Asset (ROA) does not have an impact on stock returns, because the value of ROA that is fluctuates does not have the potential to attract investors to invest their funds because it does not affect the rate of return that will be received by the investors.

Earning per Share (EPS) does not have an impact on stock returns, because during the observation period, EPS is very fluctuative which can cause the company to be in an unstable condition, therefore if EPS is in a declining state, it can cause investors to lose interest in investing their funds.

For investor and future investors, the results of this study are expected to be one of the references and materials for consideration when it comes to the making of the decision to invest. Other than that, investors are also expected to pay more attention to companies with negative stock return values and avoid investing in the company in order to avoid losses.

For the companies, this result is expected to be useful as an illustration and input to pay more attention to the company's performance in order to better the company especially in sales in order to gain more profit. This is done to attract investors to invest funds in the company.

As for researchers that will be conducting further research, it is expected for them to add other variables that might affect stock returns, add the amount of samples, and patch up a longer research period in order to gain more accurate results.

References


