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# Analysis of Current Ratio, Debt to Equity Ratio (DER), Total Assets Turnover and Net Profit Margin (NPM) on Stock Returns

## (Empirical Study on Food and Beverage Sub-Sector Companies Listed on the Indonesia Stock Exchange for the 2017-2020 Period)

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**Abstract:** *This study aims to determine and analyze the effect of Current Ratio, Debt to Equity Ratio (DER), Total Assets Turnover and Net Profit Margin (NPM) to return shares in food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the 2017-2020 period. The research method used in this research is quantitative method. The data used is secondary datanamely in the form of financial statements of companies in the food and beverage sub-sector in 2017 to 2020. The sampling method used purposive sampling method and obtained 14 sample companies for four years of observation (2017-2020) so that there were 46 samples. Hypothesis testing in this study used multiple linear regression analysis. The results showed that simultaneously the variables Current Ratio, Debt to Equity Ratio, Total Assets Turnover and Net Profit Margin significant effect on stock returns. However, partially Current Ratio variable,Debt to Equity Ratio, Total Assets Turnover and Net Profit Margin has no effect on stock returns.*

**Keywords:** Current Ratio, Debt to Equity Ratio, Total Asset Turnover, Net Profit Margin, Return on Stock.

## I. INTRODUCTION

The capital market plays an important role for the economy of a country because it is a means to obtain funds from investors for companies and a means to invest for the community. The capital market must be able to convince and attract investors to participate in buying and selling shares on the Indonesia Stock Exchange. One company that can attract investors to invest is a company engaged in the food and beverage industry. This company has a favorable prospect for the future along with the increasing consumption of Indonesian people. Since the global crisis that occurred in mid-2008, only the food and beverage industry stocks have been able to survive compared to other sectors. The measurement of the stock market price is based on a company's financial ratios .

Financial ratio analysis is an analytical tool for companies that aims to reveal changes in the company's financial situation that can determine the financial condition of the company concerned. Financial ratios measure the financial condition of an entity by comparing one account to another from various financial statements. With this ratio analysis, the company 's strengths and weaknesses in the financial sector can be identified.

Liquidity ratio with the Current Ratio measuring instrument is used to measure the company's ability to meet its short-term obligations that are due soon using available current assets. Meanwhile, the company's ability to assess debt, all equity and financial risk of the company can be measured by the solvency ratio using the Debt to Equity Ratio measuring instrument. Meanwhile, the activity ratio with the Total Assets Turnover measurement tool is used to measure the company 's ability to generate sales by utilizing its assets and to measure the company 's ability to generate profits during a certain period can use the profitability ratio with the Net Profit Margin measuring instrument .

Based on previous research on the factors that affect stock returns showed different results. According to research conducted by Ifa Nurmasari (2017) states that the current ratio is not effect on stock returns. The same research conducted by Hasanudin, et al (2020) showed that Current Ratio has no effect on stock returns. However, this research contradicts research conducted by Anita Erari (2014) which states that the current ratio effect on stock returns.

The empirical study of the relationship between the Debt to Equity Ratio (DER) and stock returns according to Siti Dini, et al (2021) states that DER has no effect on stock returns. The same study conducted by Novita et al (2019) showed that DER had no effect on stock returns. Meanwhile, Tri (2014) stated that DER has a positive effect on stock returns.

Empirical studies regarding the relationship between total assets turnover and stock returns according to Chitra Santi, et al (2018) show that total asset turnover has no effect on stock returns. The same research conducted by Eko, et al (2018) states that total asset turnover has no effect on stock returns. In contrast to research according to Nensi, et al (2020) stated that total asset turnover has an effect on stock returns.

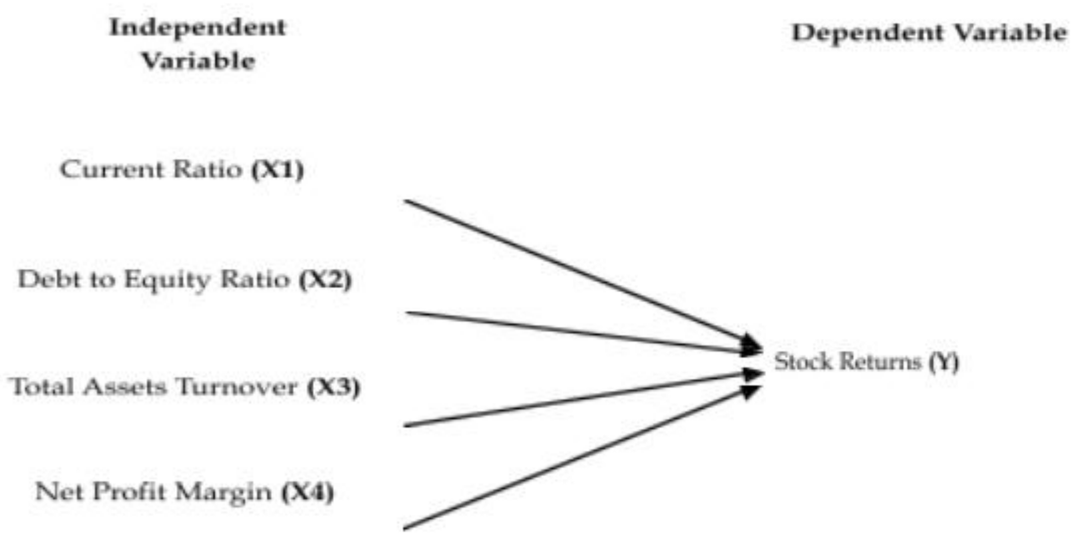
An empirical study of the relationship between Net Profit Margin (NPM) and stock returns, according to Munawir, et al (2015) states that NPM has no effect on stock returns. The same study conducted by Lusi et al (2021) stated that NPM had no effect on stock returns. However, Ferdinand, et al (2016) stated that NPM has a positive effect on stock returns.

Based on the similarities and differences between previous research on the factors that affect stock returns , the authors try to re -analyze by conducting a study entitled " Current Ratio Analysis, Debt to Equity Ratio (DER), Total Assets Turnover, and Net Profit Margin (NPM)against Stock Return (Empirical Study on Food and Beverage Sub-Sector Companies Listed on the Indonesia Stock Exchange for the 2017-2020 Period)".

## II. HEADINGS

Return*(return)* shares is the income that shareholders generate from their investment in a particular company. When investing, investors face uncertainty between the returns they can earn and the risks they face. The higher the expected return on investment, the greater the risk, so the expected return is positively related to risk. Higher risk is generally correlated with the possibility of earning a higher return. To determine the level of stock return that will be obtained for investors in investing, it is necessary to measure the company's assets with several measuring tools such as the current ratio, debt to equity ratio, total assets turnover and net profit margin.

The framework of thinking and developing hypotheses in this study are as follows:



H1: Current Ratio has an effect on Stock Return

H2: Debt to Equity Ratio (DER) effect on Stock Return

H3: Total Assets Turnover has an effect on Stock Return

H4: Net Profit Margin (NPM) has an effect on Stock Return

## III. INDENTATIONS AND EQUATIONS

**Types of research**

The type of research used is quantitative research . This research focuses on testing theory through research variables in the form of numbers, then data analysis is carried out with statistical processes both manually and through the use of computer software.

**Population and Sample**

The population used in this study were all food and beverage companies listed on the Indonesia Stock Exchange for the 2017-2020 period.Determination of the sample in this study was done by purposive sampling methodbased on certain considerations and criteria.

**Method of collecting data**

The data collection method used is the documentation method by collecting documentary data sources such as company profiles and company annual reports that are the samples for this research and the data collection is obtained from internet media by downloading through the website of the Indonesia Stock Exchange (IDX) ( www.idx.co .id ),websites such as Yahoo Finance ( www.finance.yahoo.com ), journals, andthe websiteof each company that became the research sample.

**Data analysis method**

The data analysis technique used in this research is descriptive statistical analysis, classical assumption test, multiple linear regression analysis test, simultaneous test (f test), coefficient of determination test, and partial test (t test) with the help of SPSS version 25 software.

The multiple linear regression model used in this study is as follows:

$Y = a + 1X1 + 2X2 + 3X3 + 4X4 + e$

Information:

Y = Stock Return

a = Constant

1 – 4 = Regression Coefficient

X1 = Current Ratio

X2 = Debt to Equity Ratio (DER)

X3 = Total Assets Turnover

X4 = Net Profit Margin (NPM)

e = Error Coefficient

## IV. FIGURES AND TABLES

**Descriptive Statistical Analysis Results**

Table 1. Descriptive Statistical Analysis Test Results

**Descriptive Statistics**

| | N | Minimum | Maximum | mean | Std. Deviation |
|---|---|---|---|---|---|
| Current Ratio | 46 | .730 | 8050 | 2.22804 | 1.566307 |
| Debt to Equity Ratio | 46 | .170 | 2,510 | .95217 | .594803 |
| Total Assets Turnover | 46 | .490 | 2.240 | 1.00435 | .378016 |
| Net Profit Margin | 46 | .000 | .390 | .10696 | .102369 |
| Stock returns | 46 | -.410 | .400 | .05304 | .190285 |
| Valid N (listwise) | 46 | | | | |

Source: SPSS 25, 2022 . Data Processing Results

**Classic assumption test**

1) **Normality test**

Table 2 **Kolmogorov-Smirnov. Normality Test Results**

| Variable | Sig. (2-tailed) | Information |
|---|---|---|
| *Unst. Residual* | 0.200 | Normal distributed data |

Source: SPSS 25, 2022 . Data Processing Results

Based on the output results of the Kolmogorov-Smirnov One-Sample normality test above, the sig. 0.200 means that the residual significance value is greater than 0.05, which is 0.200 so it can be concluded that the data used in this study were normally distributed.

2) **Multicollinearity Test**

Table 3 Multicollinearity Test Results

| Variable | *Collinearity Statistics* | | Information |
|---|---|---|---|
| | *Tolerance* | *VIF* | |
| CR | 0.545 | 1,836 | There is no multicollinearity |
| DER | 0.624 | 1,603 | There is no multicollinearity |
| TATTOO | 0.918 | 1.09 | There is no multicollinearity |
| NPM | 0.802 | 1,247 | There is no multicollinearity |

Source: SPSS 25, 2022 . Data Processing Results

Based on the results of the multicholinearity test above , it can be seen that the variableCurrent Ratio, Debt to Equity Ratio, Total Asset Turnover, and Net Profit Margin have a VIF value <10 and a tolerance value >0.10 so it can be concluded that all independent variables in this study do not occur multicollinearity.

**3) Heteroscedasticity Test**

Table 4 Glejser . Heteroscedasticity Test Results

| Variable | Sig. | Information |
|---|---|---|
| CR | 0.652 | There is no heteroscedasticity |
| DER | 0.347 | There is no heteroscedasticity |
| TATTOO | 0, 725 | There is no heteroscedasticity |
| NPM | 0.395 | There is no heteroscedasticity |

Source: SPSS 25, 2022 . Data Processing Results

Based on the results of the glejser test output, it shows that the sig value for all variables is > 0.05,so it can be concluded that there is no symptom of heteroscedasticity in the research regression model.

**4) Autocorrelation Test**

Table 5 Autocorrelation Test Results Runs Test

| Variable | Sig. (2-tailed) | Information |
|---|---|---|
| *Unst. Residual* | 0.456 | There is no autocorrelation |

Source: SPSS 25, 2022 . Data Processing Results

The autocorrelation test in this study used the run-test test . The results of the data processing show the value of sig. 0.456 means that the residual significance value is greater than 0.05, which is 0.456, so it can be concluded that the data used in this study does not occur autocorrelation.

**Multiple Linear Regression Analysis**

Table 6 F Test Results Results of Multiple Linear Regression Analysis

| Variable | *Unstandardized Coeficients* | | *Standardized Coefficients* | t | Sig. |
|---|---|---|---|---|---|
| | B | *Std.Error* | Beta | | |
| 1 (Constant) | -0,244 | 0,132 | | -1,846 | 0,072 |
| CR | 0,042 | 0,023 | 0,349 | 1,854 | 0,071 |
| DER | 0,035 | 0,056 | 0,108 | 0,614 | 0,543 |
| TATO | 0,133 | 0,073 | 0,264 | 1,822 | 0.0 76 |
| NPM | 0.340 | 0.289 | 0.183 | 1.180 | 0.245 _ |

Source: SPSS 25, 2022 . Data Processing Results

Based on the results of the multiple linear regression test above, the regression equation model can be made as follows:

RS = a + 1CR + 2 DER + 3 TATO + 4 NPM+ e
RS = -0.244 + 0.042 CR + 0.035 DER + 0.133 TATO + 0.340 NPM + e
Information:
RS = Stock Return
CR = Current Ratio
DER = Debt to Equity Ratio
TATO = Total Assets Turnover
NPM = Net Profit Margin
e = error

Based on the regression equation, it can be interpreted as follows:

1. The constant value of -0.244 indicates that if the Current Ratio variable(CR), Debt to Equity Ratio (DER), Total Assets Turnover (TATO) and Net Profit Margin (NPM) does not change or is considered constant (value 0), then the stock return is -0.244 .
2. The regression coefficient on the Current Ratio (CR) variable shows a value of 0.042 and is positive. This shows that if the current ratio value increases by 1 unit, then the company's stock return increases by 0.042 units with the assumption that other variables have a fixed value.
3. The regression coefficient on the Debt to Equity Ratio (DER ) variable shows a value of 0.035and the sign is positive. This shows that if the value of the debt to equity ratio increases by 1 unit, the company's stock return increases by 0.035units assuming that the other variables are fixed.
4. The regression coefficient on the Total Assets Turnover (TATO) variable shows a value of 0.133 and is positive . This shows that if the total assets turnover increases by 1 unit, then the company's stock return increases by 0.133 units with the assumption that other variables have a fixed value.
5. The regression coefficient on the Net Profit Margin (NPM) variable shows a value of 0.340 and is positive. This shows that if the value of the net profit margin increases by 1 unit, the company's share price increases by 0.340 units with the assumption that other variables have a fixed value.

**Hypothesis test**

1) **Simultaneous Test (F Test)**

Table 7 F . Test Results

| Model | *Sum of Squares* | df | *Mean Square* | F | Sig. |
|---|---|---|---|---|---|
| *Regression* | 0.338 | 4 | 0.085 | 2,683 | 0.045 [b] |
| *Residual* | 1,291 | 41 | 0.031 | | |
| *Total* | 1,629 | 45 | | | |

Source: SPSS 25, 2022 . Data Processing Results

From the results of the F test above, it shows a significant value of 0.045<0.05 thus the hypothesis is accepted. So it can be concludedthat all independent variablessimultaneously significant effect on the dependent variable .

**2) Coefficient of Determination Test**

Table 8 Results of the Coefficient of Determination

| Model | *R* | *R Square* | *Adjusted R Square* | *Std. Error of the Estimate* |
|---|---|---|---|---|
| 1 | 0.455 [a] | 0.207 | 0.13 0 | 0.17747 |

Source: SPSS 25, 2022 . Data Processing Results

Based on the results of the above data processing, the value of A adjusted R is obtained Squareof 0.130This means that 13% of the variation in the stock return variable can be explained by the variable Current Ratio, Debt to Equity Ratio (DER), Total Assets Turnoverand Net Profit Margin (NPM). While the remaining 87% is explained by other variables outside the model studied.

**3) T Test (Partial Test)**

Table 9 T . Test Results

| Variable | $t_{count}$ | $t_{table}$ | Sig | Information |
|---|---|---|---|---|
| CR | 1,854 | 2.019 | 0.071 | $H_1$no effect |

| | | | | |
|---|---|---|---|---|
| DER | 0.614 | 2.019 | 0.543 | H2 _no effect |
| TATTOO | 1,822 | 2.019 | 0.076 | $H_3$no effect |
| NPM | 1.180 | 2.019 | 0.245 | $H_4$no effect |

Source: SPSS 25, 2022 . Data Processing Results

Based on the results of the calculation of table 9, it is obtained:

1. The $_{calculated}$ t value for the Current Ratio (X1) variable is 1.854 which is smaller than the t $_{table\ value}$as big as2,019 with a significant level of 0.071> 0.05, so H1 is rejected, meaning that the Current Ratio (X1) has no effect on stock returns .
2. The $_{calculated}$ t value for the Debt to Equity Ratio (X2) variable is 0.614 which is smaller than the t $_{table\ value.}$as big as2.019 with a significant level of 0.543 > 0.05, so H2 is rejected, meaning that the Debt to Equity Ratio (X2) has no effect on stock returns .
3. The $_{calculated}$ t value for the Total Asset Turnover (X3) variable is 1.822 which is smaller than the t $_{table\ value}$as big as2.019 with a significant level of 0.076 > 0.05, so H3 is rejected, meaning Total Asset Turnover (X3) has no effect on stock returns .
4. The $_{calculated}$ t value for the Net Profit Margin (X4) variable is 1.180 which is smaller than the t $_{table\ value}$as big as2.019 with a significant level of 0.245 > 0.05, so H4 is rejected, meaning that the Net Profit Margin (X4) has no effect on stock returns .

**Discussion of Research Results**

1) **Influence of Current Ratio on Return Share**
Based on the results of the study, it shows that the first hypothesis (H1) is rejected, which means that the Current Ratio variable has no effect on stock returns. This shows that the size of the current ratio does not always lead to high-value stock returns. A high ratio value does not mean the company is in good condition. Meanwhile, if the value of the current ratio is low, it means that a company lacks capital to pay off its debts, which is considered a problem in liquidity (Kasmir, 2008). This study supports the results of research conducted by Basalama (2017), which states that the current ratio has no effect on stock returns .

2) **Effect of Debt to Equity Ratio (DER) on Stock Return**
Based on the results of the study, it was stated that the second hypothesis (H2) was rejected, which means the variable Debt to Equity Ratio has no effect on stock returns. The higher the DER, the more unprofitable it is for creditors because the greater the risk borne for failures that may occur in the company. But for companies, the higher this ratio, the better. This study is in line with research conducted by Siti Dini, Yunus Anugerah Hulu, Meltin Zebua, and Elisno Purba (2021) which states that the debt to equity ratio partially has no effect on stock returns.

3) **Effect of Total Assets Turnover on Stock Return**
Based on the results of the study, it is stated that the third hypothesis (H3) is rejected, which means that the variable Total Assets Turnoverhas no effect on stock returns. The higher this ratio means the company is getting better or more effective in using its total assets, but the company's stock return will decrease. This is certainly not profitable for investors, so this ratio is not used as a reference for investors' interest to invest in certain companies because it does not affect stock prices and returns. This study supports the research conducted by Jamaluddin, Natalya and Sarah Paulina (2021), which states that total asset turnover has no effect on stock returns.

4) **Effect of Net Profit Margin (NPM) on Stock Return**
Based on the results of the study indicate that the fourth hypothesis (H4) is rejected, which means that the variable Net Profit Marginhas no effect on stock returns. The higher the NPM ratio, it does not necessarily indicate a good company performance in generating net profit from sales. The increase in NPM value does not always have an impact on increasing the company's stock return obtained by investors, so investors do not pay too much attention to the high and low NPM when buying or selling their shares. This research is in line with research conducted by I Nyoman Febri Mahardika and Luh Gede Sri Artini (2017), which states that net profit margin has no effect on stock returns.

## V. CONCLUSION

Based on the results of the research conducted, it can be concluded as follows:

1. Current Ratio has no effect on stock returns .
2. Debt to Equity Ratio (DER) has no effect on stock returns .
3. Total Assets Turnover has no effect on stock returns .
4. Net Profit Margin (NPM)has no effect on stock returns.

**Limitations of Research and Suggestions**

1. The sample in this study only uses food and beverage sub-sector companies listed on the Indonesia Stock Exchange for the 2017-2020 period. Future researchers are expected to increase the number of samples by using companies from other sub-sectors listed on the Indonesia Stock Exchange, so that the results of research on stock returns are broader and more accurate.
2. This study only uses 4 independent variablesnamely Current Ratio, Debt to Equity Ratio (DER) , Total Assets Turnover , and Net Profit Margin (NPM), so that further researchers are expected to add independent variables considering that the independent variables in this study can only explain 13% of the dependent variable, while the remaining 87 % is explained by other variables outside the model under study.

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