



RETURN ON EQUITY, DEBT TO TOTAL ASSET RATIO, AND COMPANY VALUE

Rahmawati Hanni Yustrianthe¹⁾, Sufyana Mahmudah²⁾

^{1,2)} Akademi Akuntansi YKPN Yogyakarta

ARTIKEL INFO

*The Influence of
Corporate Governance
and Corporate Social
Responsibility on Tax
Aggressiveness*

Submitted:

06 – Mei - 2021

Revised:

02 – Agustus - 2021

Accepted:

23 – September - 2021



ABSTRACT

This study aimed to determine the effect of Return on Equity (ROE) and Debt to Total Asset Ratio (DAR) on Firm Value in manufacturing companies listed on Indonesia's Stock Exchange 2015-2019, both partially and simultaneously. The research was categorized as associative research by using 179 companies listed on the Indonesia Stock Exchange (IDX) as a population. The sample obtained from 63 companies was selected using the purposive sampling technique. The data in this study are secondary data obtained through the Indonesia Stock Exchange (IDX) and related company websites, then analyzed with multicollinearity test, heteroscedasticity test, autocorrelation test, and multiple linear regression and normality test. The results showed that the Return on Equity (ROE) has a positive effect on Firm Value, Debt to Total Asset Ratio (DAR) has no significant impact on firm value, and Return on Equity (ROE) & Debt to Total Asset Ratio (DAR) had a simultaneous effect on firm value.

Keywords: *ROE, DAR, Book Value*

E-mail : ¹⁾ctraayuu22@gmail.com,

INTRODUCTION

The development of Indonesia in the current economic era creates tight competition between companies in the industrial sector. The intense competition requires companies to improve performance and innovate with the products produced to be better known by the public so that the company's main goals can be achieved. Companies need additional funds to improve performance and product innovation. One alternative to get these additional funds is through the capital market. According to Tandelilin (2017), the capital market meets parties with excess funds and those who need funds by trading securities. The capital market can also be regarded as a market for trading securities that generally have an age of more than one year, such as bonds and stocks. The capital market that plays a role in Indonesia is

the Indonesia Stock Exchange (IDX). The developments on the Indonesia Stock Exchange have increased rapidly every year, not only the more members of the stock exchange but also changes in the Price of the shares traded. Changes in share prices indicate the activities in the capital market and investors in buying and selling transactions. It causes the company to seek additional funds through the Indonesia Stock Exchange.

One of the main goals of the company is to maximize the welfare of the shareholders. Fakhruddin (2008) found an increase in profits experienced by a company can be one of the essential factors to be a competitive advantage of companies continually being able to take place and will ultimately impact the increase in the stock price. So, in this case, the company's value becomes essential for potential investors to describe the company's performance. Suppose the stock price owned by the company has increased rapidly. In that case, it can increase market confidence in its performance and prospects in the future. According to Tandelilin (2017), Investment is a commitment to several funds or other resources that are carried out at this time, aiming to obtain some benefits in the future. Stock prices can increase if there is an investment opportunity that gives a positive signal about the company's growth in the future. At the same time, the meaning of a share of stock by Azis et al. (2015) is a piece of paper that explains that the paper's owner is a shareholder (any portion or quantity) of a company that issued the shares. The share price is the price that investors will give as proof of ownership in a company. One approach in conducting stock valuation can be measured through the ratio *Price to Book Value* (PBV).

One of the most frequently used measuring tools to measure the company's value is the *Price to book value*, which compares the stock price and the book value of the company's shares. According to Franita (2018), *Price to book value is one of the indicators used to assess the company to compare the stock price with value*. The results obtained through *Price to book value* can show how the company can create relative value with the amount of capital invested. The higher the *price to book value* ratio, the more capable the company is of creating value for shareholders. The high *cost to book value* of a company indicates a high level of prosperity for shareholders, which is one of the company's main goals. *Price to book value is commonly used to assess all types of companies because book value can be used as a measure to evaluate a company*. The *Price to book value* ratio can also compare companies with the same accounting standards in the industrial sector. Through the *Price to book value* ratio, potential investors can determine which companies have *undervalued or overvalued* shares. According to Permata et al. (2013), the stock value is *underestimated* when the *price-to-book value* is below one and *overvalued* when the *price-to-book value* is above one.

This study uses several factors to affect a firm's value, such as Return on Equity (ROE) and Debt to Total Assets (DAR). *Return on Equity* (ROE) measures the profitability ratio, and *Debt to Total Assets* (DAR) measures the debt ratio.

According to Septiana (2019), the profitability ratio describes the ability of a company to get profits through knowledge. Profitability measures efficiency when a company uses capital by comparing profit and money used in operations. The high level of profitability obtained by the company indicates that the company can generate a higher level of profit. If the company's level of profitability is high, it can be the main attraction of a company for investors who want to invest. Septiana (2019) also argues that profitability is a factor that should receive critical attention because a company in carrying out its life must be in a favorable condition. If the company does not make a profit, it will be challenging to attract investors. Tandelilin (2017) also describes *Return on Equity* (ROE) as a measure of a company's ability to generate profits that

shareholders can obtain. Based on research that has been done by Nurmindia et al. (2017) stated that profitability, namely *Return on Equity* (ROE), has a significant positive effect on firm value (PBV). The results of research by Nurmindia et al. (2017) are different from the study conducted by Ayuningsih et al. (2019), which states that *Return on Equity* (ROE) has a negative and significant effect on firm value.

According to Sulistyono (2010), a leverage ratio is a tool used to measure how far the company has depended on creditors in financing the company's assets. Suppose the leverage generated by the company is high. In that case, it can be interpreted that the company is very dependent on external loans to finance its assets. In contrast, companies with low *leverage* can use capital to sponsor more of their assets. Investors need to know how much *influence a company owns* to avoid the risk in the future. One of the risks that can occur is investment risk due to losses suffered by the company concerned, and this can occur if the resulting *leverage* ratio continues to increase. Before investing, investors can analyze the financial statements that have been provided to assess the performance of a company. It can be done because every company should publish its financial statements. *Debt to Total Asset Ratio* (DAR), according to Kasmir (2009), is a debt ratio used to measure how much of a company's assets have been financed by debt by comparing total debt with total assets. Based on Wulandari and Ukhriyawati (2016) research, the *Debt to Total Asset Ratio* (DAR) has no significant effect on firm value. In contrast to the results of research conducted by Sari and Abundanti & Sari (2014), which revealed that the *Debt to Total Asset Ratio* (DAR) had a significant negative effect on firm value.

In addition, this research makes manufacturing companies listed on the IDX in the 2015-2019 period the object of research. The selection was based on the consideration that the company is a company manufacturing that is synonymous with the company's large scale compared to other companies that can compare companies of the types of other companies of his. Another reason is that the company manufacturing also has shares that can resist the economic crisis. Most of the products are produced still needed, so there is a slight possibility of a loss.

LITERATURE REVIEW

Signal Theory (*Signaling Theory*)

Signaling theory or signal theory was developed by Ros in 1997. The signal theory states that company executives who have better information about their company will be encouraged to convey this information to potential investors to increase its stock price. The positive thing in *signaling theory* is that companies that provide good information will distinguish them from companies that do not have good news. By informing the market about their condition, signals about the promising future performance given by companies whose past financial performance was not good will not be trusted by the market.

According to Hartono (2013), *signaling theory* emphasizes the importance of information issued by the company on the investment decisions of parties outside the company. Information is an essential element for investors and business people because information essentially presents information, notes, or descriptions for past, current, and future conditions for a company's survival and how it affects the market. Investors in the capital market need complete, relevant, accurate, and timely information as an analytical tool to make investment decisions.

Hartono (2013) states that information published as an announcement will signal investors in making investment decisions. If the statement contains a positive value, it is expected that the market will react when the market receives the announcement. When

the information is announced and all market participants have received the information, market participants first interpret and analyze the data as a good *signal* (*good news*) or a wrong *signal* (*bad news*). If the information announcement is a good *signal* for investors, there will be a change in stock trading volume.

The relationship between *signaling theory* and company value is that a good company value can be a positive signal, and vice versa, a wrong company value can be a negative signal. It is because the motivation of investors to invest is to make a profit so that companies with bad value tend to be avoided by investors. In other words, investors will not support their funds in companies that have bad value.

Company Value (*Price to Book Value*)

Price to Book Value (PBV) is a ratio used to compare its stock price and book value Santoso (2018). The success rate of a company is often linked to the stock price.

The higher the stock price, the higher the value of the company. On the contrary, the lower the stock price, the lower the company's value; this means that the company's performance is in poor condition. The market will have more confidence in the company's performance and prospects in the future if the company has a high value. Companies that have a high level of corporate value show that the prosperity of shareholders is also increased. Husnan (2006, in Franita, 2018) argues that the company's value is the prospective price buyers are willing to pay if sold. Companies that produce a *Price to Book Value* ratio above one with a stock market value more significant than the company's book value generally indicate the company's condition is in good condition. Investors will be attracted to a company if the company has a high *Price to Book Value* ratio. The company's value can be measured with a *Price to Book Value*, a ratio to measure the company's value by comparing prices on the market and book value.

Factors Affecting Company Value

The first factor affecting firm value or *Price to Book Value* (PBV) is *Return on Equity* (ROE). *Return on Equity* is a ratio used to measure a company's ability to generate net profit after tax based on its capital. Tandelilin (2017) describes *Return on Equity* as a measure of a company's ability to generate shareholders. The higher the resulting ratio, the stronger the company's owner's position (Kasmir, 2009). The high *Return on Equity* a company owns explains that the company is in good condition and grows. It can also cause the company's stock price to increase. The Return on Equity results can show how high the level of failure or success of the company's management is in maximizing the Return on Investment from shareholders. *Return on Equity* can better measure a company's profitability because it shows management effectiveness when using assets to earn income. This analysis is essential for the company because it can show the level of return generated by the management of capital provided by the company's owner. The potential for an increase in profits that the company earns indicates that the ROE is growing, which will make the company's prospects better. This analysis is also essential for the company as a pull factor for investors to invest. The higher the ROE, the more interested investors. If the ROE is higher, the better the company and the higher the rate of *return* for shareholders. One of the profitability ratios that shows the company's ability to generate profits is *Return on Equity*.

The second factor affecting firm value or *Price to Book Value* (PBV) is the *Debt to Total Asset Ratio* (DAR). According to Kasmir (2009), this ratio is a debt ratio used to measure the balance between total debt and total assets. The results obtained from the *Debt to Total Asset Ratio* (DAR) can be used to determine how much the company's

assets are financed from debt proceeds or how much the company's debt affects asset management. Suppose the ratio produced by the company is high. In that case, it means that the company relies heavily on external loans to finance its assets. Companies with a lower ratio indicate that the company invests more of its assets using its capital. The debt to total asset ratio can also determine the company's inability to pay debts. If the company does not experience a deficit when making debt payments, then the company's performance can be said to be in good condition. If this happens, the level of investor confidence in the company will increase.

Previous Research

Nurminda et al. (2017) researched the effect of profitability, *leverage*, and firm size on firm value. Companies used as a sample are manufacturing companies and consumer goods sub-sector listed in Indonesia Stock Exchange (IDX) period 2012 - 2015. The results showed that the *return on equity* (ROE) significant positive effect on *Price to Book Value* (PBV). The results show that Return on Equity results have a positive coefficient direction on firm value, which means that the greater the ROE causes the firm value to increase.

Sondakh et al. (2019) conducted a study on the effect of capital structure, namely ROA, ROE, and DER, on firm value (PBV). The companies used as samples are companies in the property sector listed on the Indonesia Stock Exchange (IDX) for 2013-2016. The results showed that *Return on Equity* (ROE) had a significant effect on *Price to Book Value* (PBV). When there is an increase in profit, the stock price also increases and causes the company's value to grow.

Herninta (2019) researched the factors that affect the value of manufacturing companies on the Indonesia Stock Exchange (IDX). The companies used as samples are manufacturing companies listed on the Indonesia Stock Exchange (IDX) for 2013-2017. The results showed that *Return on Equity* had a positive and significant effect on *Price Book Value*.

Widyantari & Yadnya (2017) researched the effect of capital structure, profitability, and firm size on firm value. The companies used as samples are *Food and Beverage* companies that have been listed on the Indonesia Stock Exchange (IDX). The results showed that (ROE) had a positive and significant effect on PBV.

Mindra & Erawati (2014) researched the effect of *Earning per Share* (EPS), firm size, profitability, and *leverage* on firm value. The companies used as samples are manufacturing companies listed on the Indonesia Stock Exchange (IDX) for 2009-2011. The results showed that the *Debt to Total Assets Ratio* (DAR) had no significant effect on firm value.

Ayuningsih et al. (2019) researched the relationship between *Return on Equity* and *Earnings per Share* on firm value. The company used as a sample is PT. Astra Agro Lestari TBK. The results showed that ROE had a negative and significant effect on PBV.

Sambora et al. (2014) researched the effect of *leverage* and profitability on firm value. Companies used as samples are *food and beverage* companies listed on the Indonesia Stock Exchange (IDX) for 2009-2012. The results showed that ROE and *Debt to Total Assets Ratio* (DAR) had a significant effect.

Sutama & Lisa (2018) researched the effect of *leverage* and profitability on firm value. The companies used as samples are *food and beverage* manufacturing sector companies listed on the Indonesia Stock Exchange (IDX) for 2012-2016. The results showed that the *Debt to Total Assets Ratio* (DAR) had a positive and significant effect on firm value.

Mardiyati et al. (2012) researched the effect of dividend policy, debt policy, and profitability on firm value. The companies used as samples are manufacturing companies listed on the Indonesia Stock Exchange (IDX) for 2005-2010. The results showed that *Return on Equity* had a positive and significant effect on firm value.

Hermuningsih (2013) researched the effect of profitability, *growth opportunity*, capital structure on firm value. The companies used as samples are public companies in Indonesia for the period 2006-2010. The results showed that *Return on Equity* had a positive and significant effect on firm value.

Conceptual Framework and Hypothesis Development

Financial statements are information records containing company financial data for a certain period. The financial condition and performance of a company can be known through its financial statements. Investors need the information contained in the financial statements to estimate the profits from their investment activities. An overview of the company's capabilities that can influence investors' views of the company concerned can be obtained through company value. Firm value can be affected by several factors: *Return on Equity* (ROE) and *Debt to Total Asset Ratio* (DAR). *Return on Equity* (ROE) is related to the ability of a company. The higher the ROE generated, the better the company and the more interested investors.

Meanwhile, the *Debt to Total Asset Ratio* (DAR) relates to the total company assets financed by total debt. The higher the DAR obtained by the company, the greater the amount of loan capital used in generating profits for the company. The company's inability to pay all its obligations can also be seen from the financial statements. Still, if the company can pay all debts without experiencing a deficit, it can be said that the company is in good condition.

Effect of *Return on Equity* (ROE) on Firm Value (PBV)

Tandelilin (2017) describes *Return on Equity* as a measure of a company's ability to generate profits that shareholders can obtain. This ratio shows how high the company's management's level of failure or success is in maximizing the Return on Investment from shareholders. Investors can see the percentage generated by ROE through this ratio. The position of a company can look good when the resulting ROE ratio is high so that the share price also increases.

Return on Equity with a high ratio level indicates that the company's owner's position is getting stronger (Kasmir, 2009). The resulting high ratio also makes the return stock more prominent, so the *Price to Book Value* will increase. Research conducted by Nurmindia et al. (2017) supports this, who argued that the *Return on Equity* significant positive effect on *Price to Book Value*. Based on these arguments, the hypothesis can be formulated as follows:

H1: *Return on Equity* has a positive effect on firm value

Effect of *Debt to Total Asset Ratio* (DAR) on Firm Value (PBV)

Debt to Total Asset Ratio explains how many total assets in a company are financed with total debt. *The debt to Total Asset Ratio*, according to Kasmir (2009), is a debt ratio used to measure the ratio between total debt and total assets. The results obtained from the *Debt to Total Asset Ratio* (DAR) can be used to determine how much the company's assets are financed from debt proceeds. Through the *Debt to Total Asset Ratio* (DAR), the company emphasizes the importance of debt financing by showing the percentage of company assets supported by debt. *Price to Book Value* (PBV) will increase if the *Debt to Total Asset Ratio* increases. It can happen because the increase in the *Debt to Total Asset Ratio* causes an increase in the amount of capital used for

investment capital. Previous research conducted by Utama & Lisa (2018) shows that the Debt to Total Asset Ratio positively influences Price to Book Value in manufacturing companies listed on the Indonesia Stock Exchange. Based on these arguments, the hypothesis can be formulated as follows:

H2: *Debt to Total Asset Ratio* has a positive effect on firm value

Effect of Return on Equity (ROE) and Debt to Total Asset Ratio (DAR) on Firm Value (PBV)

Return on Equity and *Debt to Total Assets Ratio*, which the company owns, can reflect the company's condition. The Return on Equity results can show how high the level of failure or success of the company's management is in maximizing the Return on Investment from shareholders. The company's high Return on Equity shows that the company is in good condition, and the income earned can be even greater. *High Return on Equity* can also make the company's stock price increase. Meanwhile, the *Debt to Total Asset Ratio* owned by a company can show how much of the company's assets are financed by debt proceeds. If the resulting *Debt to Total Asset Ratio* is high, it will increase Book Value. It happens because the *Debt to Total Assets Ratio*, while improving, causes the amount of capital to be used for capital to be relatively high. Previous research done by Mindra & Erawati (2014) stated that the *Return on Equity* and *Debt to Total Assets Ratio* influence the n ai company. Based on these arguments, the hypothesis can be formulated as follows:

H3: *Return on Equity* and *Debt to Total Asset Ratio* have a significant effect on firm value

Based on the description above, it can be described the conceptual framework in developing hypotheses as follows:

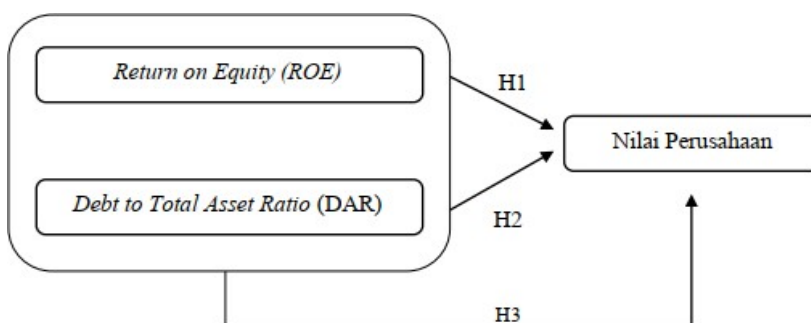


Figure 1. Thinking Framework in Developing Hypotheses

RESEARCH METHODS

Types of research

This research is included in the category of associative research. Associative research, according to Sugiyono (2007, in Krisnanto, 2020), is research that has the aim of knowing the relationship between two or more variables. This study aims to determine how the influence occurs on the independent variable, *Return on Equity* and *Debt to Total Asset Ratio*, on the dependent variable, namely *Price to Book Value*. The research was conducted using a quantitative approach, which means the data is in the form of numbers.

Population and Sample

The research population used is 179 manufacturing companies that have been listed on the Indonesia Stock Exchange for the 2015-2019 period. *Purposive sampling* is a *sampling technique used for this research. According to Sugiyono (2017:85) in Krisnanto (2020), purposive sampling is a sampling technique through data sources with specific considerations.* Overall, not all samples have the criteria previously determined by the author; therefore *purposive sampling* method is used. In the *purposive sampling* method, the author must specify the requirements specified in selecting the data to obtain a representative sample.

This study uses company data as a sample with the following criteria: (1) The selected companies are manufacturing companies that have been listed on the Indonesia Stock Exchange in the 2015-2019 period, (2) Companies that regularly publish financial statements in the 2015-2019 period and has been published through the Indonesia Stock Exchange *website*, (3) Companies that have complete company values during the 2015-2019 period.

Operational Definition and Measurement of Variables

This study uses 1 (one) dependent variable and 2 (two) independent variables. The dependent variable (Y) is a firm value (PBV), while the independent variable (X) used is *Return on Equity* and *Debt to Total Asset Ratio*.

Firm value is the dependent variable used in this study. Firm value can be measured using *Price to Book Value*. Arifin (2007) argues that this ratio explains the comparison between the market price of a stock and the actual book value per share. The smaller the result, the better. According to Arifin (2007), the formula that can be used to calculate *Price to Book Value* is:

$$PBV = \frac{\text{Stock price}}{\text{Book Value}}$$

Return on Equity is a ratio used to determine how high the success or failure of a company's management is in maximizing shareholders' Return on Investment. Kasmir (2009) reveals that *return on equity* is a ratio used to measure net profit after tax with own capital. The higher the level of ROE generated, the higher the company's ability to generate profits for shareholders. The increase in stock prices will undoubtedly make the demand for shares also increase. According to Kasmir (2009), the formula that can be used to find *Return on Equity* (ROE) is as follows:

$$ROE = \frac{\text{Net profit after tax}}{\text{Total Equity}}$$

Debt to Total Asset Ratio (DAR) explains how many total assets in a company are financed with real debt. According to Kasmir (2009), this ratio is a debt ratio used to measure the balance between total debt and total assets. The results obtained from the *Debt to Total Asset Ratio* can determine how much the company's assets are financed from debt proceeds. A high ratio level will impact all shareholders because a high *Debt to Total Asset Ratio* will increase interest payments, reducing dividend payments. According to Kasmir (2009), the *Debt to Total Asset Ratio* can be calculated using the following formula:

$$DAR = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Data Types and Data Sources

The type of data used in this study is secondary data, where the data source does not directly provide data owned by the company. Secondary data on manufacturing companies listed on the Indonesia Stock Exchange (IDX) in the 2015-2019 period can be obtained through the official website of the Indonesia Stock Exchange (IDX), namely www.idx.co.id.

Data collection technique

The data collection technique used in this research uses the documentation observation technique, namely looking at the companies' financial statements that are the sample of this study. Through this documentation observation technique, the authors collected data on the company's financial statements from 2015 to 2019. The data on the company's financial statements were obtained from www.idx.co.id.

After all, the company's financial report data is already collected, the company's performance is calculated: the *Return on Equity* and *Debt to Total Assets Ratio*. The estimated data will then be further processed using the help of *Statistical Product Service Solution* (SPSS). After that, various statistical analyzes will be carried out, which are needed to be used as the basis for solving research problems. Statistical analysis carried out includes descriptive statistics, classical assumption tests, and hypothesis testing.

Descriptive statistics

Descriptive statistics are conducted to provide an overview or description of the data: the *mean*, median, and standard deviation (Ghozali, 2018).

Classic assumption test

The purpose of the classical assumption test is to determine the accuracy of the multiple linear regression model. Researchers tested using normality, multicollinearity, heteroscedasticity, and autocorrelation tests.

Normality test

According to Ghozali (2018), the normality test is used to test whether there is a dependent variable and an independent variable in the regression model or both have a standard or abnormal distribution. The results of statistical tests that have decreased have variables that are not normally distributed. To determine whether the residuals are normally distributed or not, we can use graphical analysis, namely the normal plot graph, and through the results of statistical analysis, namely Kolmogorov-Smirnov.

Multicollinearity Test

A multicollinearity test was conducted to test whether the regression model found there was a correlation between independent variables or not. Ghozali (2018) expressed his opinion that multicollinearity testing tests a correlation between independent variables in the regression model. The effect that can be produced through the multicollinearity test is highly variable in the sample. If this happens, the standard *error* will be significant. If there is no correlation between independent variables, it can be said that the regression model is in good condition to detect the presence or absence of multicollinearity in the regression; it can be seen from the tolerance value and *variance inflation factor* (VIF).

Heteroscedasticity Test

Ghozali (2018) revealed that the heteroscedasticity test was carried out to determine whether there was an inequality of variance from the residuals in one observation to another in the regression model. Through the *scatterplot* graph, it can be seen whether there is heteroscedasticity in a multiple linear regression model. If no heteroscedasticity is found, it can be said that the research model is in good condition. Ghozali (2018) also argues that graph plots have a significant weakness because the number of observations affects the plotting results; therefore, several other statistical tests can be carried out to detect the presence or absence of heteroscedasticity.

Autocorrelation Test

Ghozali (2018) revealed that the autocorrelation test was carried out to test whether in the linear regression model there is a correlation between the confounding error in period t and the confounding error in period $t-1$. If there is a correlation, it is called an autocorrelation *problem*.

The criteria used in the *Durbin Watson* test, according to Ghozali (2018), include the following: If $0 < d < dl$, then there is no positive autocorrelation if $4-dl < d < 4$. Which means there is no negative autocorrelation. And, if $du < d < 4-du$, then there is no positive or negative autocorrelation.

Multiple Linear Regression Analysis

The hypothesis test used in this study is multiple regression. Ghozali (2018) reveals that regression analysis is used to measure the strength of the relationship between two or more variables; it can also show a direction of the relationship between the dependent and independent variables. Multiple regression analysis can also be used to predict the value of a dependent variable if the value of the independent variable increases or decreases and to determine the direction of the relationship between the dependent variable and the independent variable whether each independent variable is positively or negatively related. The effect of the independent variable on the dependent variable can be known through the following formula :

$$Y = a + b_1X_1 + b_2X_2 + e$$

Information:

Y = Firm value

a = constant value

b_1 = Regression coefficient for *Return on Equity*

X_1 = *Return on Equity* (ROE)

b_2 = Regression coefficient for *Debt to Total Asset Ratio*

X_2 = *Debt to Total Asset Ratio* (DAR)

E = *Error*

Test Model Test t and F

Test t and F -count in this study have the objective to test the effect regression model all independent variables are partially or simultaneously to the bound variables. The test is carried out by determining conclusions based on a significant level of 0.05 or 5% (Ghozali, 2018).

Coefficient of Determination (R^2)

The coefficient of determination (R^2) test is used to predict how big the contribution of an independent variable has on the dependent variable. Ghozali (2018) argues that the determinant coefficient measures how far the model can explain the variation of the dependent variable. Values between zero and one are included in the coefficient of determination. If the value is close to one, the independent variable will provide almost all the information needed to predict the variation of the dependent

variable. If the value of the coefficient of determination is small, it indicates the ability of the independent variable to explain the minimal deviation of the dependent variable.

Hypothesis testing

Hypothesis testing in this study was conducted to determine the effect of the dependent variable and independent variables' effect separately. It can be seen by looking at the magnitude of the 0.05 level of significance. Criteria for acceptance of hypotheses such as the following:

- a. If, $\text{sig} < 0.05$, $t \text{ count} > t \text{ table}$, coefficient +, then H is accepted
- b. If, $\text{sig} < 0.05$, $t \text{ count} > t \text{ table}$, coefficient -, then H is accepted.
- c. If, $\text{sig} > 0.05$, $t \text{ count} < t \text{ table}$, then the hypothesis is rejected

RESULTS AND DISCUSSION

Description of Research Data

This study was made to know the effect that occurs on *Return on Equity* and *Debt to Total Asset Ratio* in manufacturing companies that have been listed on the Indonesia Stock Exchange (IDX) in the 2015-2019 period. The data used in this study is secondary data in the form of financial reports that can be downloaded through the official website of the Indonesia Stock Exchange (IDX), namely www.idx.co.id.

The population used in this study comes from manufacturing companies that have been listed on the Indonesia Stock Exchange (IDX) from 2015 to 2019. The sampling method uses a *purposive sampling method* that has the following criteria :

1. The selected company is a manufacturing company that has been listed on the Indonesia Stock Exchange in the 2015-2019 period.
2. The selected company is a manufacturing company that has been listed on the Indonesia Stock Exchange in the 2015-2019 period.
3. Companies that regularly publish financial reports in 2015-2019 have been published through the Indonesia Stock Exchange *website*.
4. Companies that have total company value (PBV) during the 2015-2019 period.

Table 1. Sampling

Criteria	Quantity
Total Population	179
Manufacturing companies that have been listed on the IDX 2015-2019	179
Does not pass criteria 1	0
Companies that regularly publish reports finances during the years 2015-2019	63
Does not pass criteria 2	116
Have a complete company value during the 2015-2019 period	63
Does not pass criteria 3	116
The number of samples that meet the criteria of observation for five years	63

Source: Secondary data processed by researchers, 2021

Descriptive statistics

Based on the data that has been processed through SPSS, the final results obtained are:

- (1) PBV has a mean of 211.6306 with a standard deviation of 384.84281.
- (2) DAR has a mean of 39.7229 with a standard deviation of 18.74044.
- (3) ROE has a mean of 12.3439 with a standard deviation of 15.84720.

Classic Assumption Test Results

Based on the data processed through SPSS, it is known that the classical assumption test results. It starts from the normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. It means that the data are typically distributed, no symptoms of multicollinearity, and indicates the absence of heteroscedasticity. Also, it indicates that the research model was acceptable and autocorrelation does not exist.

Multiple Regression Analysis Results

Hypothesis testing in this study using multiple regression analysis. The multiple linear regression equations referred to are:

$$Y = 62,152 - 0.289 (\text{DAR}) + 13,039 (\text{ROE})$$

where :

1. Constant (α)

The constant value (α) obtained is 62,152, which means that if the *Debt to Total Asset Ratio* (DAR) and *Return on Equity* (ROE) variables do not exist, then the value of the company that occurs is 62.152.

2. Regression Coefficient (β) DAR

The value of the coefficient of firm value as measured by the *Debt to Total Asset Ratio* (DAR) is -0.289. It explains that the *Debt to Total Asset Ratio* harms firm value, where every increase of one unit of *Debt to Total Asset Ratio* will decrease the substantial value of -0.289.

3. Regression Coefficient (β) ROE

The value of the coefficient of firm value as measured by *Return on Equity* (ROE) is 13,039. It explains that *Return on Equity* has a positive effect on firm value, where each increase of one unit of *Return on Equity* will increase the firm value by 13,039.

T-test results

Based on data from the t-test results that appear in *Table 2* below, it is known that significant value (Sig.) For each independent variable, DAR and ROE on the dependent variable value amounted to 0.769 and 0.000. If a variable has a sign value < 0.05, it can be concluded that it has a significant effect on other variables. So, based on these results, we can conclude that only the ROE is in partial impact negatively on the variable value of the company (PBV), whereas no significant effect DAR.

Table 2 t-test results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	62,152	44,911		1.384	.167
	DAR	-.289	.984	-.014	-.294	.769
	ROE	13.039	1.164	.537	11.206	.000

Source: SPSS Output,2020

F Test Results

Based on Table 3 below, the results of the F test show the effect of the independent variables ROE and DAR on the dependent variable of firm value simultaneously. It looks as follows:

Table 3 F Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13338693.521	2	6669346,761	62,820	.000 ^b
	Residual	33017855.625	311	106166,738		
	Total	46356549.146	313			

Source: SPSS Output,2020

The results of table 3 above show that DAR and ROE together positively affect firm value. It can be seen from the F value of 62.820 with a significance of 0.000, smaller than 0.05.

Determination Test (R²)

Based on the data that has been processed through SPSS, it can be seen that the coefficient of determination or *R Square* is 0.288. Rated *R Square* 0.288 is derived from the results of squaring the correlation coefficient or "R," i.e., $0.536 \times 0.536 = 0.288$. The magnitude of the coefficient of determination (R Square) is 0.288 or equal to 28.8%. This figure means that the ROE and DAR variables simultaneously affect the firm value variable (PBV) of 28.8%. At the same time, the rest ($100\% - 28.8\% = 71.2\%$) is influenced by other variables outside this regression equation or other variables not examined.

Discussion

Effect of Return on Equity (ROE) on Firm Value

Based on the results of statistical analysis that has been carried out for the *Return on Equity* (ROE) variable, it shows that the significance value of *Return on Equity* is smaller than, namely $0.000 < 0.05$., with a value of 13.039 and t-count $>$ t-table namely $11.206 > 1.2951$. So partially positive effect on firm value, then the first hypothesis (H1) is accepted.

The results are consistent with studies that have been conducted by Nurminda et al. (2017), who studied the effect of profitability, *leverage*, and the size of the company to value the company at manufacturing sub-sector goods and consumption that are listed in the Indonesia Stock Exchange (BEI) Period 2012-2015. His research shows that *Return on Equity* positively affects *Price to Book Value*. It explains that the position of a company can look good when the *Return on Equity* ratio is high so that the share price also increases.

Effect of Debt to Total Asset Ratio (DAR) on Firm Value

Based on the results of statistical analysis that has been carried out for the *Debt to Total Asset Ratio* variable, it shows that the significance value of DAR is greater than namely $0.769 > 0.05$ with -0.289 and t-count $<$ t-table, namely $-0.294 < 1, 2951$. So, it can be concluded that partially DAR has no significant effect on firm value, so the second hypothesis (H2) is rejected.

The results of this study are in line with the results of research conducted by Mindra & Erawati (2014), which show that the *Debt to Total Assets Ratio* (DAR) has no

significant effect on firm value in manufacturing companies listed on the Indonesia Stock Exchange for the period 2009-2011.

The Effect of ROE and DAR on Firm Value

The statistical analysis results for the ROE and DAR variables together (simultaneously) show a significance level of $0.000 < 0.05$. The value of the coefficient of determination (R^2) is 0.288. This figure means that the ROE and DAR variables together affect the firm value variable by 28.8%. In contrast, the rest ($100\% - 28.8\% = 71.2\%$) is influenced by other variables outside this regression equation or other variables not examined. Through the results of statistical analysis that has been carried out, it can be concluded that ROE and DAR simultaneously have a significant influence on firm value in manufacturing companies that have been listed on the Indonesia Stock Exchange (IDX) from 2015 to 2019.

The results indicate that ROE and DAR can influence firm value. The independent variable in this study is essential for investors who want to know information about a company.

Information that can be used investors' decisions when want to invest in companies that concerned. The results of this study are in line with the research conducted by Mindra & Erawati (2014), which examined the effect of *Earning per Share* (EPS), Company Size, Profitability, and *Leverage* on firm value in manufacturing companies listed in Indonesia Stock Exchange (IDX) 2009-2011 period. His research shows that *Return on Equity* and *Debt to Total Asset Ratio* affect *Price to Book Value*.

CONCLUSION

This study was conducted to know the *Return on Equity* and *Debt to Total Asset Ratio* both partially and simultaneously on the Firm Value of manufacturing companies that have been listed on the Indonesia Stock Exchange (IDX) from 2015 to 2019. Research This concludes that: (1) *Return on Equity* (ROE) has a positive effect on the value of manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2015 to 2019. It is evidenced by the results of statistical analysis for the *Return on Equity* (ROE) variable showing that the significance value of DAR is more significant than which is $0.769 > 0.05$ with of - 0.289 and t-count $< t$ -table, which is $-0.294 < 1.2951$. So the results of this study explain that the position of a company can look good when the resulting *Return on Equity* ratio increases. It means that the stock price also increases, (2) *Debt to Total Asset Ratio* harms the value of manufacturing companies that has been listed on the Indonesia Stock Exchange (IDX) from 2015 to 2019. It is evidenced by the statistical analysis results for the Debt to Total Asset Ratio variable, which shows that the significance value of DAR is more significant than $0.769 > 0.05$ with -0.289 and t-count $< t$ -table that is $-0.294 < 1.2951$. It can be concluded that the effect of DAR is not significant on firm value. Also, (3) *Return on Equity* and *Debt to Total Asset Ratio* simultaneously significantly affect firm value in manufacturing companies listed on the Indonesia Stock Exchange. (IDX) from 2015 to 2019. It can be seen through the coefficient of determination (R^2) of 0.288. This figure means that the ROE and DAR variables simultaneously affect the firm value variable by 28.8%. In contrast, the rest ($100\% - 28.8\% = 71.2\%$) is influenced by other variables outside this regression equation or other variables not examined.

This study has various limitations that can be used to consider further research to maximize the results. The limitations include: (1) The coefficient of determination is low at 18.3%, which means that there are still variables outside the study that

can affect *tax avoidance*, in addition to the audit committee, capital intensity, and firm size, (2) This research was only conducted on manufacturing companies that have been listed on the Indonesia Stock Exchange (IDX), so the sample used is still not large enough to be able to describe the influence of the independent variable on the dependent variable, namely *tax avoidance*, and (3) The period carried out in this study is only the 2015-2019 period so that it is less able to provide a broad and complete picture of the research results.

The various limitations stated above allow further researchers to overcome these limitations so that the contribution of research results is even more significant. Based on these results, several suggestions can be made, namely (1) For researchers who want to conduct further research, it is expected to add variables that have not been discussed in this research model as independent variables, (2) For researchers who want to conduct further research, it is expected to increase the number of population and sample data regarding a company so that the influence of other variables can be described more clearly, and (3) For further researchers, it is expected to increase the year to provide a broad and complete picture of the results of the study.

LITERATURE

- Abundanti, N., & Sari, P. I. P. (2014). PEnagruh Pertumbuhan Perusahaan dan Leverage Terhadap Profitabilitas dan Nilai Perusahaan (The Influence of Company Growth and Leverage on Profitability and Company Value). *E-Jurnal Manajemen Unud*, 3(5), 1427–1441.
- Arifin, A. (2007). *Membaca Saham (Reading Stocks)*. Yogyakarta: Andi Offset.
- Ayuningsih, S. D., Sunarya, E., & Norisanti, N. (2019). Analysis of the Relationship between Return on Equity and Earning Per Share on Company Value at PT. Astra Agro Lestari Tbk. *Jurnal Bisnis Dan Manajemen Universitas Merdeka Malang*, 6(1), 65–71. <https://doi.org/10.26905/jbm.v6i1.3036>
- Azis, M., Mintarti, S., & Nadir, M. (2015). *Investment Management: Fundamental, Technical, Investor Behavior and Stock Return*. Yogyakarta: Deepublish.
- Fakhrudin, H. M. (2008). *Go Public: Strategi Pendanaan Dan Peningkatan Nilai Perusahaan*. Jakarta: PT. Elex Media Komputindo.
- Franita, R. (2018). *Good Corporate Governance Mechanisms and Corporate Values: A Study for Telecommunication Companies*. Medan: Lembaga Penelitian dan Penulisan Ilmiah Aqli.
- Ghozali, I. (2018). *Multivariate Analysis Application With Program IBM SPSS 25* (9th ed.). Semarang: Badan Penerbit Universitas Diponegoro.
- Hartono, J. (2013). *Teori Portofolio dan Analisis Investasi (Portfolio Theory and Investment Analysis)* (8th ed.). Yogyakarta: BPFE.
- Hermuningsih, S. (2013). Effect of Profitability, Growth Opportunity, Capital Structure on Firm Value in Public Companies in Indonesia. *Bulletin of Monetary Economics and Banking*, 16(2), 127–148. <https://doi.org/doi.org/10.21098/bemp.v16i2.27>
- Herninta, T. (2019). Faktor-Faktor yang Mempengaruhi Nilai Perusahaan Manufaktur di Bursa Efek Indonesia (Factors Affecting the Value of Manufacturing Companies on the Indonesia Stock Exchange). *Manajemen Bisnis*, 22(3), 325–336.
- Kasmir. (2009). *Pengantar Manajemen Keuangan (Introduction to Financial Management)*. Jakarta: Kencana.
- Krisnanto, H. D. (2020). *The Influence of Company Performance and Systematic Risk on Stock Returns*. YKPN Yogyakarta Accounting Academy.
- Mardiyati, U., Ahmad, G. N., & Putri, R. (2012). The Influence of Dividend Policy, Debt Policy and Profitability on the Value of Manufacturing Companies Listed on

- the Indonesia Stock Exchange (IDX) for the Period 2005-2010. *Jurnal Riset Manajemen Sains Indonesia (JRMSI)*, 3(1), 1–17.
<https://doi.org/10.35794/emba.v8i4.30859>
- Mindra, S., & Erawati, T. (2014). Pengaruh Earning Per Share (EPS), Ukuran Perusahaan, Profitabilitas, dan Leverage Terhadap Nilai Perusahaan (Studi Kasus pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia pada Tahun 2009-2011). *Jurnal Akuntansi*, 2(2), 10–22. <https://doi.org/10.24964/ja.v2i2.31>
- Nurminda, A., Isynuwardhana, D., & Nurbaiti, A. (2017). The Influence Of Profitability, Leverage, and Firm Size Toward Firm Value (Study Of Manufacture Companies Goods And Foods Sub Sector Listed in Indonesia Stock Exchange 2012-2015). *E-Proceeding of Management*, 4(1), 542–549.
- Permata, I. S., Kertahadi, & Topowijono. (2013). Penilaian Saham dengan Menggunakan Metode Price Earning Ratio (PER) dan Price Book Value (PBV) (Studi pada Saham PT Bank Rakyat Indonesia (Persero), Tbk yang Terdaftar pada Bursa Efek Indonesia Periode 2003-2012). *Jurnal Administrasi Bisnis (JAB)*, 2(1), 65–73. Retrieved from <http://administrasibisnis.studentjournal.ub.ac.id/index.php/jab/article/view/74>
- Sambora, M. N., Handayani, S. R., & Rahayu, S. M. (2014). The Effect of Leverage and Profitability on Firm Value (Study on Food and Beverages Companies Listed on the Stock Exchange for the Period of 2009-2012). *Jurnal Administrasi Bisnis (JAB)*, 8(1), 1–10.
- Santoso, S. (2018). *Menguasai Statistik dengan SPSS 25 (Mastering Statistics with SPSS 25)*. Jakarta: PT. Elex Media Komputindo.
- Septiana, A. (2019). *Financial Statement Analysis: Basic Concepts and Description of Financial Statements*. Pamekasan: Duta Media Publishing.
- Sondakh, P., Saerang, I., & Samadi, R. (2019). Effect of Capital Structure Modal (ROA, ROE, dan DER) on Company Value (PBV) in Property Sector Companies Listed on The IDX (Year 2013-2016). *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 7(3), 3079–3088.
<https://doi.org/doi.org/10.35794/emba.7.3.2019.24196>
- Sulistyo, W. A. N. (2010). *Analysis of Factors Influencing the Timeliness of Submitting Financial Statements to Companies Listed on the Indonesia Stock Exchange for the Period 2006-2008*. Diponegoro University.
- Sutama, D. R., & Lisa, E. (2018). Effect of Leverage and Profitability on Firm Value. *Sains Manajemen Dan Akuntansi*, 10(1), 21–39.
- Tandelilin, E. (2017). *Pasar Modal Manajemen Portofolio & Investasi (Capital Markets Portfolio & Investment Management)*. Yogyakarta: PT. Kanisius.
- Widyantari, N. L. P., & Yadnya, I. P. (2017). Effect of Capital Structure, Profitability and Company Size on Company Value on Food and Beverage on the Indonesia Stock Exchange. *E-Jurnal Manajemen Unud*, 6(12), 6383–6409.