**The Effect of Dividend Policy, Investment Decision,**

**Leverage, Profitability, and Firm Size on Firm Value**

**Abstract**

This study aims to obtain empirical evidence related to the effect of dividend policy, investment decisions, leverage, profitability, and firm size on firm value. The population of this study is all manufacturing companies listed on the Indonesian stock exchange in 2015-2019 with 30 companies as samples. Determination of the sample in this study using the purposive sampling method. Hypothesis testing in this study uses panel data regression. The results showed that dividend policy does not affect firm value, investment decisions do not affect firm value, leverage affects positively firm value, profitability affects positively firm value, and firm size does not affect firm value.

**Keywords:** Dividend Policy, Firm Size, Firm Value, Investment Decisions, Leverage, Profitability.

1. Introduction

Firm value can be interpreted as market value because the firm value is able to provide welfare to shareholders in the event of an increase in stock prices (Harventy, 2016). The company in its development always tries to maintain its business excellence in increasing its value of the company (Hermawan & Maf’ulah, 2014). This is because a high firm value shows an increase in investor welfare because the rate of return on investment is high. Firm value is one of the assessments that investors use to predict a company's success, and it is often related to stock prices because the higher the stock price, the higher the firm value (Mangesti Rahayu *et al*., 2020). However, during the last 3 months of 2019 the composite stock price index (CSPI) of the manufacturing sector fluctuated. Based on data from Central Bureau of Statistics (2019), in October the manufacturing sector CSPI was 1.456 and in November the manufacturing sector CSPI decreased by 1.408. Furthermore, in December the manufacturing sector CSPI experienced an increase in

1.461. The decline in CSPI in November was due to the weakening performance of the manufacturing sector due to a decline in purchasing power and demand for goods. Meanwhile, the increase in CSPI in December was due to an increase in the level of consumer confidence and public purchasing power. The phenomenon of stock price movements will certainly have an impact on firm value because a level of stock prices can describe the market value of the company.

According to Ni *et al*. (2021) firm value, which the firm seeks to improve, is considered the main indicator for evaluating firm performance. In addition, Meythi *et al*. (2014) also revealed that corporate value is very important

because it can describe a company's performance and is able to affect an investor's assessment of the company. However, in 2019 the manufacturing industry experienced a decline in performance, where the growth of the manufacturing industry throughout 2019 only reached 3.8%. The growth of the manufacturing industry has decreased from the achievements in 2017 and 2018 which were 4.29% and 4.27%, respectively (Olivia, 2020). This clearly makes investors' perception of the company to be bad, resulting in reduced investor interest in investing and has an impact on firm value.

Several important decisions need to be taken in increasing firm value, namely regarding dividend policy and investment decisions. The decision on Dividend policy is a procedure carried out by the company in deciding whether to distribute the company's profits to shareholders in the form of dividends or to withhold the profits. According to Kim *et al*. (2020) dividends can be used as a reward for investors or to maximize the value of the company.

Investment decisions are one of the elements that influence firm value, where Investment decisions are related to decisions regarding the allocation of funds with funding sources (internal and external), and these funds are used to achieve company goals, both short-term goals and long-term goals (Efni, 2017). Investment decisions must be made correctly to generate benefits or profits in the future. Making the right investment decisions can also help the company's business development in the future, which can later have an impact on increasing the company's share price. If the company's stock price increases, the company's value will also increase.

In addition, there is leverage, profitability, and firm size which are factors influencing firm value. The higher the

level of leverage indicates that the company's funding sourced from debt is getting bigger. The greater the level of corporate debt, the risk of the possibility of the company going bankrupt or defaulting will be higher, and this will get a negative response from investors. As a result, the company's stock price will decrease and the impact on firm value will also fall. However, if the company can manage its debt well then this will attract investors and will make the stock price increase so that the impact on the firm’s value will increase. According to Nuraina (2012) To obtain a positive perception from investors which can ultimately increase the share price, the management will use leverage at an optimal level.

The amount of profitability obtained by the company can affect the value of the company (Meythi *et al*., 2014). The level of profitability that is described from the profits or profits generated by the company is information issued by the company as a signal to attract investors to invest in the company. The higher the level of profitability of the company, the investor's perception of the company will be better, and this will attract investors to invest. The more investors who are interested in investing in a company, the stock price and firm value will be higher.

Furthermore, another factor that can affect firm value is firm size. According to Nuraina (2012) Large companies have easy access to capital markets. Easy access to the capital markets means that companies can adapt and are able to raise funds, due to the easy access to the capital markets and the ability to raise more funds. (Nuraina, 2012). Companies with large sizes or scale can reflect that the company has good development, so this will get a positive response from investors which can ultimately increase stock prices and make company value also increase.

Empirical research that has been done by previous researchers shows differences in research results, including those conducted by Suteja & Mayasari (2017) whose research results show that the dividend policy affects the value of the company. The research of Syamsudin *et al*. (2020) found that investment decisions affect firm value. However, the research of Piristina & Khairunnisa (2019) shows that dividend policy and investment decisions do not affect the value of the company. Research from Jariah (2016) found that partially the leverage variable affects firm value, while the profitability variable does not affect firm value. Endri & Fathony (2020) found in their research that leverage, and firm size variables do not affect firm value, while profitability affects firm value. There are inconsistent findings, this research needs to be done.

The difference between this research and previous research is that this study uses Dividend Policy, Investment Decision, Leverage, Profitability, and Firm Size as independent variables in influencing firm value. This variable is used because every financial decision taken by managers in distributing dividends and in making investments, as well as in maintaining a stable level of leverage, profitability, and company size is the manager's effort to provide a positive signal about the development and prospects of the company to stakeholders. So, this is expected to make investors interested in investing in the company, which in turn can have an impact on rising stock prices as a reflection of the company's value.

1. Theoretical Basic and Hypothesis Development
   1. *Dividend Policy on Firm Value*

A dividend policy is a policy taken by management in choosing whether the net profit earned by the corporate should be shared with shareholders as dividends or reinvested in the company as retained earnings. Signaling theory (Baker *et al*., 2019) This theory assumes that management uses dividends to inform external shareholders of the company's prospects and profitability due to the asymmetry of information about the company. The decisions taken by management in distributing dividends can prosper the shareholders. This will certainly get a positive response from investors and make investors interested in investing their capital in the company. For companies, dividends are decisions that can prosper shareholders and will affect company value (Mai, 2017).

# H1: Dividend policy affects positively firm value.

* 1. *Investment Decision on Firm Value*

When For managers, investment decisions are important because they relate to the company's financial function. The funds issued by the company to invest in can be a positive signal for the company's growth in the future which can later have an impact on rising stock prices as a reflection of the company's value. Decisions regarding investment, if done correctly and can generate profits, will obtain investor trust to invest. This of course will make the company's stock price increase and have an impact on firm value, which also increases. The higher the level of profit generated from the corporate investment activities, the higher the corporate stock price will be (Syamsudin *et al*., 2020).

# H2: Investment Decision affects positively firm value.

* 1. *Leverage on Firm Value*

Leverage can be defined as a measuring tool used to determine total funds obtained from debt, in financing the company's operational activities. A high level of leverage indicates that the company uses more debt as a source of funds. Companies that have debt levels that are too high will give a bad signal to investors because according to some investors, the company cannot meet financing and operating costs (Cheryta *et al*., 2018). So, having a high debt value also has a higher risk (Cheryta *et al*., 2018). A high level of risk can reflect the possibility of the company failing to pay its debts. Thus, this will make investors less confident and afraid to invest in the company, because the level of leverage is high. As a result, there is a decrease in stock prices and the impact on firm value which has decreased. Matondang & Yustrianthe (2017) explained that a large excess of debt will have a negative impact on firm value, which causes financial distress so firm value decreases.

# H3: Leverage affects negatively firm value.

* 1. *Profitability on Firm Value*

Profitability can be defined as a measuring tool to assess a company's capability to earn profits from its operational activity. The level of company profitability is information issued by the company as a signal to attract investors' interest in investing in the company. The higher the level of profitability of the company, the more investors are interested in investing in the company. Thus, this makes the company's stock price increase. The better the company's capability to earn profits, the higher the level of profitability and the higher the firm’s value. (Jariah, 2016).

# H4: Profitability affects positively firm value.

* 1. *Firm Size on Firm Value*

Firm size can be measured by the total of assets it owns. If the company has many assets, then the company can be categorized as a large company. Investors more often invest in large companies, because large companies are considered to have good development and can improve company performance. This of course can have an impact on firm value which will increase due to good investor perceptions of the company. According to Sugiyanto *et al*. (2021) Companies with large total assets will get more attention from investors, creditors, and other users of financial information; In addition, management will be more flexible in using existing assets to increase company value.

# H5: Firm size affects positively firm value.

1. Research Method
2. *Population and Sample*

Secondary data is the sort of data employed in this study. Secondary data, namely data in the form of numbers contained in financial statements of manufacturing companies listed on the Indonesia Stock Exchange in 2015- 2019. The population of this study is all manufacturing companies listed on the Indonesia Stock Exchange. Manufacturing companies were chosen because they have great business potential and are one of the supporting industries for the country's economy. The year 2015-2019 was chosen because in that year the GDP growth rate of the manufacturing industry fluctuated. The sample of this research is all manufacturing companies listed on the Indonesia Stock Exchange in 2015-2019. The sampling technique used is purposive sampling, namely the technique of determining the sample with certain deliberation (Sugiyono, 2012). The sample selection criteria in this study were manufacturing companies listed on the Indonesia Stock Exchange in 2015-2019, manufacturing companies that publishes financial statements from 2015-2019, manufacturing companies whose financial statements were presented in rupiah currency from 2015-2019, companies whose financial statements were presented in rupiah from 2015-2019, companies’ manufacturers who always distribute dividends during 2015-2019.

1. *Operational Definition and Variable Measurement*
   1. *Dependent Variable*

Price to Book Value (PBV) is the ratio used in this study to calculate firm value. Price to book value (PBV) is a ratio that compares the market price of a company's shares with the book value of the company's shares. *(*Sudiyatno *et al*., 2020). In this study, the closing stock price used to calculate PBV is the stock price on the publication date of the financial statements, this is because on that date the financial statements have been audited and declared in accordance with financial accounting standards. Some researchers such as Jihadi *et al*. (2021), Sulaeman (2020), Sudiyatno *et al*. (2020), Resti *et al*. (2019), Artini & Puspaningsih (2011) also PBV as a proxy for firm value in their research.

𝑃𝑟𝑖𝑐𝑒 𝑆ℎ𝑎𝑟𝑒

𝑃𝐵𝑉 =

𝐵𝑜𝑜𝑘 𝑉𝑎𝑙𝑢𝑒 𝑂𝑓 𝑆ℎ𝑎𝑟𝑒

* 1. *Independent Variable*
     1. *Dividend Policy*

In this study, dividend policy is measured using the Dividend Pay-Out Ratio (DPR). DPR is a ratio calculated by comparing dividends per share with earnings per share. Some researchers such as Barros *et al*. (2021), Endri & Fathony (2020), Ainun (2020), Putri & Irawati (2019), Jariah (2016), Artini & Puspaningsih (2011) also uses the Dividend Pay-Out Ratio (DPR) as a proxy for dividend policy in his research.

*Dividend Per Share*

DPR = *Earnings Per Share*

* + 1. *Investment Decision*

Investment decisions can be defined as decisions concerning the allocation of sources of funds to the total assets owned by the company, both short-term assets and long-term assets (Purnamasari *et al*., 2009). Based on this understanding, investment decisions in this study are measured using the ratio of total asset growth (TAG), because the results of investment decisions can be seen from the increase in asset growth. Some researchers such as Harnovinsah & Alamsyah (2017), Florentina (2013), Purnamasari *et al*. (2009), also uses total asset growth (TAG) as a proxy for investment decisions in his research.

*total assets t - total assets t-1*

TAG = *total assets t-1*

* + 1. *Leverage*

Leverage is a measure to see how much of the assets in the company are financed by debt (Makhdalena, 2018). The financial leverage ratio in this study was obtained by comparing the total debt with total assets, as referred to in his research Cheryta *et al*. (2018), Makhdalena (2018), Yuharningsih (2008).

*Total Debt*

Leverage = *Total Assets*

* + 1. *Profitability*

The profitability ratio in this study was measured using return on assets (ROA). Return on assets (ROA) is a profitability ratio that gives how much profit the company can generate from its assets (Jihadi *et al*., 2021). Some researchers such as Jihadi *et al*. (2021), Endri & Fathony (2020), Kadim *et al*. (2020), Lisa (2017), Chen & Chen (2011), also use ROA as a proxy for profitability in their research.

Net Income

ROA = Total Assets

* + 1. *Firm Size*

According to Adi *et al*. (2020) firm size is a scale on which companies are classified according to their size based on the total assets of a company. The larger the total assets, the larger the size of the company (Adi *et al*., 2020). Company size in this study was measured using the natural logarithm of total assets, as referred to in his research Endri & Fathony (2020), Makhdalena (2018), Sujoko (2006).

Firm Size = Ln (total assets)

1. *Data Analysis Techniques and Hypothesis Testing*

This study uses panel data regression as the analysis method. The purpose of panel data regression analysis is to determine the influence and strength of the relationship between the independent variable and the dependent variable. Panel data regression analysis was performed using the statistical application software tool EViews 10. In general, the panel data regression equation is as follows:

PBVit = a + b1DPRit + b2TAGit + b3LEVit + b4ROAit +

b5UKit + Eit

where,

PBV = Firm Value.

a = Constanta.

b = Regression Coefficient; DPR = Dividend Policy.

TAG = Investment Decisions; LEV = Leverage.

ROA = Profitability; UK = Firm Size.

E = Error Term.

1. Result and Discussion
2. *Descriptive Statistics*

The results of the descriptive statistical test in Table I show the maximum value, minimum value, mean, and standard deviation of each variable in this study. Descriptive statistical test results:

TABLE I: Descriptive Statistical Test Results

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | N | Minimum | Maximum | Mean | Std. Dev. |
| PBV | 150 | 0.136084 | 16.06011 | 2.832117 | 3.098794 |
| DPR | 150 | -0.604595 | 3.521127 | 0.504977 | 0.431494 |
| TAG | 150 | -0.148089 | 0.932742 | 0.114684 | 0.167172 |
| LEV | 150 | 0.070740 | 0.819719 | 0.358206 | 0.181001 |
| ROA | 150 | -0.012206 | 0.466601 | 0.100145 | 0.087016 |
| UK | 150 | 26.33816 | 33.49453 | 29.34851 | 1.734654 |

Source: Data processed using Eviews 10.

The results of the descriptive statistical test in Table I show that the firm value variable (PBV), has a mean value of 2.832117 and for a minimum value of 0.136084, the maximum value is 16.06011, with a standard deviation of 3.098794.

The dividend policy variable (DPR) has a mean value of 0.504977 and for a minimum value of -0.604595, the maximum value is 3.521127, with a standard deviation of 0.431494.

The investment decision variable (TAG) has a mean value of 0.114684 and for a minimum value of -0.148089, the maximum value is 0.932742, with a standard deviation of 0.167172.

The leverage variable (LEV) has a mean value of 0.358206 and for a minimum value of 0.070740, the maximum value is 0.819719, with a standard deviation of 0.181001.

The profitability variable (ROA) has a mean value of 0.100145 and for a minimum value of -0.012206, the maximum value is 0.466601, with a standard deviation of 0.087016.

Firm size variable (UK) has a mean value of 29.34851 and for a minimum value of 26,33816, the maximum value is 33,49453, with a standard deviation of 1.734654.

1. *Regression Analysis*

This study uses panel data regression as the analysis method. The regression model to determine the panel data regression equation that has been selected is the random effect model.

TABEL II: Regression Test Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
| C | -7.810639 | 4.532724 | -1.723167 | 0.0870 |
| DPR | 0.239969 | 0.428952 | 0.559431 | 0.5767 |
| TAG | -0.799194 | 0.876584 | -0.911715 | 0.3634 |
| LEV | 3.524169 | 1.399363 | 2.518409 | 0.0129 |
| ROA | 21.92533 | 2.881649 | 7.608607 | 0.0000 |
| UK | 0.243799 | 0.157744 | 1.545537 | 0.1244 |
| R-squared | 0.334313 |  |  |  |
| Adjusted R-squared | 0.311199 |  |  |  |
| F-statistic | 14.46358 |  |  |  |
| Prob (F-statistic) | 0.000000 |  |  |  |

Source: Data processed using Eviews 10.

The following is the panel data regression model in this study:

PBVit = -7.810639 + 0.239969DPRit - 0.799194TAGit + 3.524169LEVit + 21.92533ROAit + 0.243799UKit + Eit

Table II shows the results of the regression test, and the test is carried out by comparing the probability value with the error rate. In this study, the error rate was 0.05 (5%). The following is a discussion of the research results:

1. *The Effect of Dividend Policy on Firm Value*

In this study, the first hypothesis is that dividend policy can affect positively on company value. Based on the test results between the dividend policy variable and company value, the coefficient value is 0.239969 with a probability value of 0.5767 > 0.05, meaning that dividend policy does not affect firm value.

This result is in accordance with the research (Alvita & Khairunnisa, 2019) and (Resti *et al*., 2019) who found that dividend policy does not affect firm value. The results of this study indicate that the distribution of dividends is not the main purpose of investors in buying shares. High dividend payouts do not always reflect good company value (Resti *et al*., 2019).

The results of this study are in accordance with the Dividend Irrelevance Theory which has been stated that dividend policy has no effect on the company's stock price or cost of capital (Brigham & Daves, 2014). Merton Miller and Franco Modigliani (MM) argue that a firm's value depends only on the income generated by its firm's assets, not on how this income is divided between dividends and retained earnings (Brigham & Daves, 2014). So, the company's policy to divide the company's profits into dividends or retained earnings does not affect firm value (Pamungkas & Puspaningsih, 2013).

1. *The Effect of Investment Decisions on Firm Value*

In this study, the second hypothesis is that Investment Decisions can affect positively on company value. Based on the test results between investment decision variables and company value, the coefficient value is -0.799194 with a probability value of 0.3634 > 0.05, meaning that investment decisions do not affect firm value.

This result is in accordance with the research (Alvita & Khairunnisa, 2019) found that investment decisions do not affect firm value. The investment decision is a decision to allocate several funds in various forms of investment in the hope of obtaining profits in the future. Based on this, investment decisions are also very important for the survival of the company. However, investment has received less attention from investors. So, this makes the investment have less impact on the assessment of investors.

The results of this study indicate that the level of investment made by the corporate does not affect the company’s value. This is because the high investment risk in the future, as well as the expected return on investment in the future, which is uncertain, makes investors not make investment decisions as a reference in influencing the value of the company. Alvita & Khairunnisa (2019) added the reason that investment decisions do not affect firm value because outside parties or investors use the company's external factors such as political conditions and others as a reference to influence firm value.

1. *The Effect of Leverage on Firm Value*

In this study, the third hypothesis is that leverage can negatively on company value. Based on the test results between the leverage variable and firm value, the coefficient value is 3.524169 with a probability value of 0.0129 < 0.05, meaning that leverage affects positively on firm's value.

This result is in accordance with the research Jariah (2016) who found that leverage influenced firm value. Leverage can be defined as a measuring tool used to determine total funds obtained from debt, in financing the company's operational activities. A high level of leverage indicates that the company uses more debt as a wellspring of funding. The company's decision to use debt as a source of funds in financing operational activities can be a positive signal for investors and can affect the value of the company. This is because using debt as a wellspring of funding can optimize corporate operational activities so that the company's targets and objectives to earn profits can be achieved and this will make investors interested in investing and can impact increasing company value. According to Hermuningsih (2013) The existence of debt has benefits for the company because it can control the management who uses cash funds freely and excessively. If this control increases, it will ultimately escalate the value of the company which is reflected in the escalation in stock prices (Hermuningsih, 2013).

1. *The Effect of Profitability on Firm Value*

In this study, the fourth hypothesis is that profitability can affect positively company value. Based on the test results between the probability variable and firm value, the coefficient value of 21.92533 with a probability value of 0.0000 < 0.05, meaning that profitability affects positively on firm value.

This result is in accordance with the research (Hermuningsih, 2013) and (Kellen, 2011) who found that profitability had an affect company value. Hermuningsih (2013) Stating that high profitability shows good company prospects, so it triggers stock demand by investors. The level of company profitability can describe the profits obtained by the company. The level of company profitability is a signal used by the corporation to draw in investors to want to invest in the corporation. A high level of profitability will have an impact on investor assessment, and this will attract investors to invest. The more investors who are interested in investing in a corporation, the stock price and firm value will be higher.

1. *The Effect of Firm Size on Firm Value*

In this study, the fifth hypothesis is that firm size can affect positively on company value. Test results between company Size variable and Firm Value, the coefficient value is 0.243799 with a probability value of 0.1244 > 0.05, meaning that firm size does not affect firm value.

This result is in accordance with the research (Pamungkas & Puspaningsih, 2013) found that company size does not affect company value. This study indicates that firm size measured by total assets is not a consideration for investors in making investments. In addition, asset management by management has not been maximized, making the company unable to achieve its goal of obtaining large profits. So, it does not guarantee that companies with large assets can earn more profits than companies with small total assets. Therefore, firm size has no effect on firm value.

1. Conclusion, Limitation and Suggestion
2. *Conclusion*

The conclusions of the research conducted are as follows:

1. Dividend policy does not affect firm value. The results of this study indicate that the distribution of dividends is not the main purpose of investors in buying shares.
2. Investment decisions do not affect firm value. This is because the high investment risk in the future, as well as the expected return on investment in the future, which is uncertain, makes investors not make investment decisions as a reference in influencing company value.
3. Leverage affects positively firm value. This is because using debt as a wellspring of funding can optimize corporate operational activities so that the company's targets and objectives to earn profits can be achieved and this will make investors interested in investing and can impact increasing company value.
4. Profitability affects positively firm value. A high level of profitability will have an impact on investor assessment, and this will attract investors to invest. The more investors who are interested in investing in a company, the stock price and company value will be higher.
5. Firm size does not affect firm value. This study indicates that firm size measured by total assets is not a consideration for investors in making investments. In addition, asset management by management has not been maximized, making the company unable to achieve its goal of obtaining large profits. So, it does not guarantee that companies with large assets can earn more profits than companies with small total assets. Therefore, company size does not affect company value.
6. *Limitation*

This study still has limits, namely, this study only takes the variables of dividend policy, investment decisions, leverage, profitability, and firm size as independent variables in influencing firm value. In addition, the firm value variable is only measured using the PBV ratio. There are still various kinds of measurements for the firm value variable.

1. *Suggestion*

For the management, it can be taken into consideration for the company in increasing company value and as a consideration for issuers to evaluate and improve in order to improve the company's performance in the future.

Future researchers are expected to add other variables that can affect firm value, further researchers are expected to use other measurements in measuring firm value variables.