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# Dividend Policy as Moderating Variable on the Effect of Leverage and Profitability on Firm Value



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ABSTRACT: Investors are very interested in the value of go public companies as a consideration in making investment decisions. Investors have the main goal to earn income or return on investment, one of which is dividends. The capital managed by the company comes from internal and external sources. Proper management of capital sources is important by companies so that investors' goals are achieved, therefore this study aims to determine the effect of Dividend Policy as a moderating variable on the effect of Leverage and Profitability on Firm Value in Manufacturing companies, especially the consumer goods industry sector listed on the Indonesia Stock Exchange in the period 2018-2020. This research uses purposive sampling method, with multiple linear regression analysis technique. The results show that leverage has a significant negative effect on firm value, profitability has a significant positive effect on firm value, while the dividend policy variable is able to moderate the effect of leverage, and profitability on firm value negatively and significantly.

KEYWORDS: Profitability, Leverage, Dividend Policy, and Firm Value

#### I. INTRODUCTION

The company's goal is to obtain maximum profit, prosper the owner of the company and optimize the value of the company. For investors, the value of the company is very important as a consideration in making investment decisions. Investors have the main goal to earn income or return on investment, one of which is dividends. Firm value is an investor's perception of the company which is often associated with stock prices. The owner of the company expects a high value, because a high value indicates the prosperity of shareholders is also high (Hemastuti and Hermanto 2014). Creating good corporate value is the task of financial managers in order to provide a good signal to investors.

Manufacturing companies in the consumer goods industry sector are one of the industrial sectors that are quite interesting to study, because on average their products are always needed by the community. In Indonesia, the consumer goods industry sector contributes a lot to the economy, because it is able to create a lot of job opportunities. There are 6 sub-sectors of the consumer goods industry, namely, the food and beverage sub-sector, the cigarette sub-sector, the pharmaceutical sub-sector, the cosmetics and household goods sub-sector, the household appliances sub-sector, and other consumer goods sub-sectors. Firm value is influenced by the level of leverage managed by the company. The leverage on the company can be used to

Firm value is influenced by the level of leverage managed by the company. The leverage on the company can be used to generate greater profits through maximum management of capital or assets derived from debt (Ha and Minh 2020). Meanwhile, for investors, a high level of leverage can pose a high level of risk, therefore the level of leverage is a concern for investors. Some investors have the view that the existence of leverage means that the company is trusted by creditors to borrow funds. Creditors' trust in the company will give a good signal to investors so that they have more confidence in the company, so that investors are more interested in investing in the company, which means that it affects the stock price, which in turn affects the value of the company.

Company value is also influenced by the level of profitability generated by the company. Profitability is the ability of a company to generate profits during a certain period (Nila and Suryanawa 2018). The level of profitability will be a consideration for investors in making investment decisions. Companies that have a high level of profitability will give a positive signal to investors. The value of profitability can be shown in the company's financial statements. The higher the profitability in the financial statements submitted, the stronger the positive signal given to investors that the company has a high level of profitability. The higher the level of profitability, the higher the intention of investors towards the company in placing their funds in the company so that the higher the value of the company. The results of research by (Awulle, Murni, and Rondonuwu 2018; Chen and Chen

2011) found that profitability has a significant positive effect on firm value. Meanwhile, (Harfiani 2021) found that profitability had no significant positive effect on firm value.

In this study, dividend policy is used as a moderating variable of the effect of leverage and profitability on firm value. In terms of leverage, that the use of large debt can maintain the company's cash flow position so that the profits generated can be distributed as dividends to shareholders. Investors in choosing a capital structure depend on their preferences for the return and investment risk that will be borne (Irawan and Kusuma 2019). Companies that use debt in their operations will get tax savings, because taxes are calculated from operating profit after deducting interest on debt, so that the net profit that is the right of shareholders will be greater than companies that do not use debt (Suastini, Purbawangsa, and Rahyuda 2016). Dividend policy can be related to the company's debt policy, therefore investors when going to invest their funds in the company pay attention to the level and policy of the company's leverage. The addition of debt can give a positive signal to investors that the company maintains the company's cash position in the future, therefore increasing the value of the company. The results of research by Martini and (Martini and Riharjo 2014) found that dividend policy was able to strengthen the relationship between leverage and firm value

In terms of profitability, profit is the end result of policies and decisions obtained by an entity. Profitability is the ability of an entity to earn a profit through its operations by using assets owned by the company. A high level of profitability can attract investors to invest in the company, because of good management performance. Profitability obtained by a company will affect the amount of dividends to be paid to shareholders. If the company earns a large amount of profit, then the ability to pay dividends is even greater. The results of empirical research find that dividend policy can moderate the relationship between profitability and firm value (Mery, Zulbahridar, and Kurnia 2017).

#### **II. LITERATURE RIEVEW**

#### **Signalling Theory**

A signal is an action taken by the company's management to provide clues to investors about how management views the company's prospects. The signals captured can come from leverage and dividend policies (Brigham and Houston 2015). Basically, investors expect a return on their investment, therefore if the level of investment invested by investors is high, it will affect the level of firm value.

#### The Value of the Firm

The value of the company is reflected in its share price (Fama and Jensen 1983). An increase in company value can be indicated by an increase in stock prices, and conversely a decrease in company value can be indicated by a decrease in stock prices. (Hermuningsih 2016) states that firm value is an investor's perception of the company's level of success which is closely related to its share price. The higher the stock price reflects the high value of the company (Sari and Subardjo 2018). Company value can be measured by PBV (price book value). The ratio Price to Book Value is a comparison between the value of shares according to the market with the book value of the company's equity (Hidayat 2013). The higher the value of the PBV ratio, the higher the investor's assessment compared to the funds invested in the company (Budi and Rachmawati 2014).

#### Leverage

The extent to which a company uses debt financing is called financial leverage (Brigham and Houston 2015). Leverage is a ratio used to measure how far the company uses debt (Sutama and Lisa 2018). Leverage can be used to increase assets but the use of high levels of leverage can pose a high level of risk. For debt investors, they can reduce the tax burden to be paid because there are interest costs that arise due to debt. Thus, debt can give a positive signal for investors to invest in the company, so as to increase the value of the company. Leverage can be measured by DER (debt to equity ratio). Debt to Equity Ratio is a comparison between all debt including current debt, with all equity (Arastika and Khairunnisa 2020).

#### **Profitability**

The profitability ratio is used to assess the extent to which the company is able to generate profits (Wijaya and Sedana 2015). The level of profitability will be a consideration for investors in making investment decisions. Profitability is considered important because profitability is an indicator in measuring the financial performance of a company so that it can be used as a reference for assessing the company (Sastrawan and Suaryana 2016). The higher the level of profitability, the higher the intention of investors to the company in placing their funds in the company so that the higher the value of the company. Profitability in research is measured by using ROA (Return on Assets). Return on Assets is the ratio of net profit after tax to the average number of all assets (Cahya and Riwoe 2018).

#### **Dividend Policy**

Dividends are profits distributed to shareholders for the number of shares they own (Harfiani 2021). Dividend policy can be influenced by the company's debt policy. Therefore, when investors will invest their funds in the company, pay attention to the level and policy of the company's leverage. Dividend policy can also be influenced by the level of company profitability. The higher the level of company profitability, the higher the dividend that can be distributed to shareholders. Continuous dividend distribution can give a positive signal to investors. A positive signal given to investors will make investors interested in placing their funds in companies that distribute dividends continuously and consistently, therefore the higher the Dividend Policy, the higher the Company Value. Dividend policy in this study is measured by the DPR (Dividend Payout Ratio). Dividend Payout Ratio is a comparison of dividend per share with earnings per share (Brigham and Houston (2014).

#### **III. RESEARCH HYPOTHESES**

The independent variables in this study are leverage and profitability. The dependent variable in this study is firm value. H1 is formulated as the influence of leverage on firm value, H1 is formulated as the effect of profitability on firm value, H3 is formulated as leverage effect on firm value with dividend policy as the moderating variable, while H4 is formulated as the effect of profitability on firm value with dividend policy as the moderating variable.

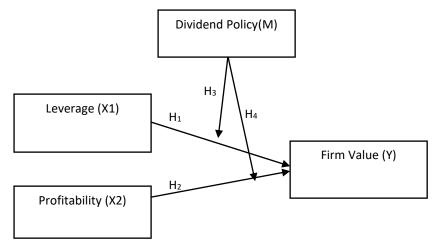


Figure 1. Conceptual Framework

## **IV. RESEARCH METHODS**

The population in this study are manufacturing companies listed on the Indonesia Stock Exchange (IDX), namely the consumer goods industry sector from 2018 to 2020. The sampling technique used is purposive sampling, namely the sampling method based on the criteria of the company publishing its financial statements in succession in Indonesia Stock Exchange in 2018 to 2020 and the Company has the data needed for the variables to be studied. The number of data samples used in the study became 89 sample data. This study focuses on empirical testing of the model developed from the theoretical model that has been proposed. The identification of leverage, profitability on firm value with dividend policy as a moderating variable is carried out through an empirical research model. The stages of testing carried out include the stages of descriptive statistical tests, classical assumption tests including normality, multicollinearity, heteroscedasticity, autocorrelation tests. Furthermore, multiple linear regression analysis and partial hypothesis testing (t test) and simultaneous hypothesis testing (F test), the Coefficient of Determination test (R²) were carried out. The t-test test uses a significance level of 5%. If the p value < 0.005 then the hypothesis is proven.

#### V. RESULTS AND DISCUSSION

#### **Description of Research Variables**

The mean value of the firm value is 0.2213 with a standard deviation of 0.19764, the mean value of leverage is 0.5944 with a standard deviation of 4.33246. The mean value of dividend policy is 0.4143 with a standard deviation of 0.81087. The mean value of leverage on firm value moderated by dividend policy is 0.582 with a standard deviation of 0.10084. The mean value of profitability to firm value moderated by dividend policy is 0.2257 with a standard deviation of 0.96444.

#### **Table 1. Description of Research Variables**

|     | Mean  | Std. Deviation | N  |  |
|-----|-------|----------------|----|--|
| Υ   | .2213 | .19764         | 89 |  |
| X1  | .5944 | 4.33246        | 89 |  |
| X2  | .7966 | .87693         | 89 |  |
| М   | .4143 | .81087         | 89 |  |
| X1M | .0582 | .10084         | 89 |  |
| X2M | .2257 | .96444         | 89 |  |

#### **Classic assumption test**

Testing for normality using the Kolmogorov-Sminorv z test where if the significant value is > 0.05 then the residual data is normally distributed, and vice versa if the significant value is < 0.05 then the residual data is not normally distributed. Based on table 2, it can be seen that the Asymp.Sig (2-tailed) value is 0.526 which is greater than 0.05 (0.526 > 0.05), so it can be concluded that the research data has been normally distributed.

**Table 2. Normality Test Results** 

|                                  |                | Unstandardiz<br>ed Residual |
|----------------------------------|----------------|-----------------------------|
| N                                |                | 89                          |
| Normal Parameters <sup>a,b</sup> | Mean           | .0000000                    |
|                                  | Std. Deviation | .16493745                   |
| Most Extreme                     | Absolute       | .086                        |
| Differences                      | Positive       | .086                        |
|                                  | Negative       | 052                         |
| Kolmogorov-Smirnov Z             |                | .811                        |
| Asymp. Sig. (2-tailed)           |                | .526                        |

Multicollinearity testing is by looking at the VIF value, where if the VIF value is <10 and the tolerance value is greater than 0.10, the regression model is declared free from multicollinearity. Based on Table 3, it can be seen that the VIF value for all variables is less than 10 and the tolerance value is greater than 0.10, it can be concluded that the resulting regression model is free from multicollinearity.

**Table 3. Multicollinearity Test Results** 

|       |            | Unstandardized<br>Coefficients |            | Standardized<br>Coefficients |        |      | Correlations |         | Collinearity Statistics |           |       |
|-------|------------|--------------------------------|------------|------------------------------|--------|------|--------------|---------|-------------------------|-----------|-------|
| Model |            | В                              | Std. Error | Beta                         | t      | Sig. | Zero-order   | Partial | Part                    | Tolerance | VIF   |
| 1     | (Constant) | .191                           | .029       |                              | 6.644  | .000 |              |         |                         |           |       |
|       | X1         | 007                            | .004       | 147                          | -1.598 | .114 | 140          | 173     | 146                     | .995      | 1.005 |
|       | X2         | .076                           | .021       | .338                         | 3.645  | .000 | .385         | .371    | .334                    | .975      | 1.026 |
|       | M          | .070                           | .049       | .288                         | 1.437  | .154 | 278          | .156    | .132                    | .210      | 4.767 |
|       | X1M        | 590                            | .220       | 301                          | -2.684 | .009 | 297          | 283     | 246                     | .667      | 1.500 |
|       | X2M        | 093                            | .037       | 453                          | -2.519 | .014 | 316          | 267     | 231                     | .259      | 3.861 |

a. Dependent Variable: Y

Heteroscedasticity testing is carried out by using the Scatterplot Test which can be seen in Figure 2 that the points formed must be randomly distributed either above or below the number 0 on the Y axis.

#### Scatterplot

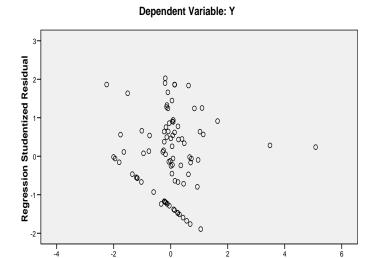


Figure 2. Heteroscedasticity Test Results

**Regression Standardized Predicted Value** 

A good regression model is one that is free from autocorrelation, where this test is carried out by looking at the value if du < d < (4-du) then it is free from autocorrelation. The test results show that the value of Durbin Watson is 1.174. This value is compared with the value of the Durbin-Watson table using a significance value of 0.05 (a = 5%), the number of samples is 89 (n = 89), and the number of independent variables is 5, du = 1.7754.

**Table 4. Autocorrelation Test** 

# Model Summaryb

|      |                   |          | Adjusted | Std. Error of | Durbin- |  |
|------|-------------------|----------|----------|---------------|---------|--|
| Mode | R                 | R Square | R Square | the Estimate  | Watson  |  |
| 1    | .551 <sup>a</sup> | .304     | .262     | .16983        | 1.174   |  |

a. Predictors: (Constant), X2M, X1, X2, X1M, M

b. Dependent Variable: Y

# **Multiple Linear Regression Analysis**

This test was conducted to determine the effect of Leverage (X1), Profitability (X2) on Firm Value (Y) with Dividend Policy (M) as a moderating variable in manufacturing companies, especially the consumer goods industry sub-sector listed on the Indonesia Stock Exchange for the 2018-2020 period.

**Table 5. Multiple Linear Regression Test Results** 

| Model        | Unstandardized |       | Standardized | t      | Sig. |
|--------------|----------------|-------|--------------|--------|------|
|              | Coefficients   |       | Coefficients |        |      |
|              | В              | Std.  | Beta         |        |      |
|              |                | Error |              |        |      |
| 1 (Constant) | .191           | .029  |              | 6.644  | .000 |
| X1           | 007            | .004  | 147          | -1.598 | .114 |
| X2           | .076           | .021  | .338         | 3.645  | .000 |
| М            | .070           | .049  | .288         | 1.437  | .154 |
| X1M          | 590            | .220  | 301          | -2.684 | .009 |
| X2M          | 093            | .037  | 453          | -2.519 | .014 |

a. Dependent Variable: Y

The leverage variable (X1) has a coefficient value of -0.007 (negative) and a significance value of 0.114 which is greater than 0.05 (0.114 > 0.05). Based on these results, it can be concluded that partial leverage has a negative and insignificant effect on the value and therefore, the first hypothesis in this study is rejected.

The profitability variable (X2) has a coefficient value of 0.076 (positive) and a significance value of 0.000 which is smaller than 0.05 (0.000 <0.05). Based on these results, it can be concluded that profitability partially has a positive and significant effect on firm value and therefore, the second hypothesis in this study is accepted.

The dividend policy variable (M) has a coefficient value of 0.070 (positive) and a significance value of 0.154 which is greater than 0.05 (0.154 > 0.05). Based on these results, it can be concluded that profitability partially has a positive and insignificant effect on firm value.

The variable interaction between leverage and Dividend Policy (X1M) has a coefficient value of –0.590 and a significance value of 0.009 which is smaller than 0.05 (0.009 <0.05). Based on these results, it can be concluded that the interaction variable between leverage (X1) and Dividend Policy (M) has a significant negative effect on firm value. Thus, the third hypothesis in this study can be accepted because dividend policy (M) is able to moderate the effect of leverage (X1) on firm value (Y).

The results of the t-statistical test show the interaction of variables between profitability and Dividend Policy (X2M) has a coefficient value of -0.093 and a significance value of 0.014 which is smaller than 0.05 (0.014 <0.05). Based on these results, it can be concluded that the interaction variable between the profitability variable (X2) and Dividend Policy (M) has a significant negative effect on firm value (Y). Thus, the fourth hypothesis in this study can be accepted because dividend policy (M) is able to moderate the effect of profitability (X2) on firm value (Y).

#### **CONCLUSIONS**

Leverage partially has no significant effect. High leverage also indicates high investment risk. Thus, it will be a concern for investors that the existence of debt to increase assets will increase investment risk. Even so, there are several other aspects that are considered for investors that the existence of debt can reduce the tax burden because there are interest costs that arise due to the use of debt. Likewise, for companies to be able to reduce risk, they can use their own capital costs and retained earnings to finance the company's operational activities, so that leverage does not affect the value of the company. Profitability has a significant positive effect on firm value. This shows that the higher the profitability, the higher the firm value.

The higher the level of profitability, the higher the intention of investors to the company in placing their funds in the company so that the higher the value of the company. Leverage has a significant negative effect on firm value when moderated by dividend policy. Investors can have the view that the company is unable to pay the dividends that will be distributed if investors place their funds in the company. Thus, the higher the leverage, the lower the dividend distributed. The lower the dividend will reduce investment by investors so that it can reduce the value of the company. Profitability has a significant negative effect on firm value when moderated by dividend policy. This shows that the profitability obtained by a company will affect the amount of dividends to be paid to shareholders. If the company earns a large amount of profit, the ability to pay dividends will be greater. Thus, the large amount of dividends can affect the value of the company. Conversely, if the low profitability can reduce the dividends distributed. This means that the effect of a decrease in investment will affect the decline in stock prices so that it has an impact on the decline in firm value.

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