THE INFLUENCE OF FIRM SIZE, MANAGERIAL OWNERSHIP AND INSTITUTIONAL OWNERSHIP ON FIRM VALUE WITH DIVIDEND PAYOUT RATIO AS INTERVENING VARIABLE

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Abstract

This study aims to examine and analyze the effect of firm size, managerial ownership and institutional ownership on firm value with the dividend payout ratio (DPR) as the intervening variable. DPR as an intervening variable is expected to be able to show the relationship between firm size, managerial and institutional ownership on firm value. This research was conducted on manufacturing companies listed on the Indonesia Stock Exchange in the period 2016 to 2018. This study uses purposive sampling method in taking samples of 12 companies. The data in this study were taken from the annual report obtained by direct access to the Indonesia Stock Exchange web address. The analysis method uses path analysis. The results of the analysis show that the variables of firm size, managerial ownership and institutional ownership have an effect on firm value. Meanwhile, the DPR variable is not able to mediate the effect of firm size, managerial ownership and institutional ownership on firm value.

Keywords: Firm Value, Managerial Ownership, Institutional Ownership, Dividend Payout Ratio
1. INTRODUCTION

Most business entities aim to obtain the highest profits. However, as time goes by, profit is not the only goal but also firm value. Basically, firm value can be measured through various aspects or points of view, one of which is the market price of the company's shares. The market price of a company's shares reflects the total investor assessment of each share ownership they own. Firm value is used as a benchmark by every investor as to the extent of the company's success when it is linked to the share price (Sujoko and Soebiantoro, 2007).

There is a correlation between firm value and the share price, where the increasing or high share price is also accompanied by an increase in firm value in the eyes of potential investors, so that if the share price of a company is high or increases, the level of profit that investors will receive will also increase. Meanwhile, according to Van Horne (in Pujjati, 2009) firm value is proxied by the market price of the company's ordinary shares which, in turn, is a function of the company's investment, funding and dividend decisions. So that potential investors will make the stock market price one of the choices in assessing, evaluating and measuring the performance of company management. Efforts to increase firm value can be achieved when the management of company and other parties, including shareholders and stakeholders, work together in making financial decisions to maximize existing working capital. In reality, combining the interests of both parties often creates problems, namely agency problems. In theory of the firm Jensen and Meckling’s (1976), the existence of agency problems will result in the company's financial goals not being achieved, namely increasing firm value by maximizing shareholder wealth.

According to Mohd (in Pujjati, 2009) explains that outsiders or what we know as institutional investors are a form of distribution or spread of shares between outside shareholders, namely institutional investors and shareholder dispersion who can control conflicts of interest. The existence of ownership by external parties, namely institutional investors such as insurance companies, banking companies, investment companies and ownership by other companies which may have different types of industries, can encourage better and optimal supervision of company management performance. So it can be said that the ownership structure is considered / believed to be able to influence the running of the company which ultimately influences the company's performance in achieving company goals, namely maximizing firm value as a result of the supervision and control they have.

With the business phenomenon in the form of trend in the manufacturing sector in Indonesia which is quite rapid compared to other sectors and the background previously explained, this is why researchers are interested in conducting further and in-depth research, so this research raises the title The Influence of Firm size and Ownership Structure on Firm value with Dividend Payout Ratio as an Intervening Variable in Manufacturing Companies. listed on the Indonesian Stock Exchange. In accordance with the problems that have been raised, the aim of this research is to analyze the effect of firm size on the dividend payout ratio, managerial ownership on the dividend payout ratio, institutional ownership on the dividend payout ratio, institutional ownership on the dividend payout ratio, firm size to firm value, managerial ownership on firm value, institutional ownership on firm value, dividend payout ratio on firm value, firm size on firm value which is mediated by the dividend payout, managerial ownership on firm value which is mediated by the dividend payout ratio and institutional ownership on firm value which is mediated by the dividend payout ratio.

2 HYPOTHESIS DEVELOPMENT

Firm size describes the size of a company, which is indicated by one of them being total assets. Supports signaling theory where investors tend to like large companies and those that pay dividends. Dividends are a signal that a company that is able to distribute dividends indicates that the company is in good and stable condition, especially from a financial perspective. Research conducted by Wahyuliza and Fahyani (2019) on companies listed on the Indonesia Stock Exchange found evidence that firm size as proxied by Ln Total Assets had a positive effect on dividend policy. Al-Malkawi's (2007) research in Jordan found evidence that firm size has a positive effect on dividend yield. Thus, the hypothesis proposed is as follows: Hypothesis 1: firm size has a positive effect on dividend payout ratio.
Based on the results of research by Arilaha (2009), which was conducted on companies listed on the IDX, it was found that firm size has a positive effect on firm value, which is supported by Sujoko and Soebiantoro (2007) and Iswahjuni et al. (2018). Thus, the hypothesis proposed is as follows: Hypothesis 2: Firm size has a positive effect on firm value.

Research conducted by Sukirmi (2012); shows that the influence of managerial ownership on dividend payments has a negative influence on the dividend payout ratio. Pujiat (2009); shows that managerial ownership has a negative influence on the dividend payout ratio. This decline in firm value was caused by opportunistic actions carried out by managerial shareholders. So the researcher formulated the third hypothesis, namely: Hypothesis 3: Managerial Ownership has a negative effect to dividend payout ratio.

In agency theory, the existence of information asymmetry between company management and outsiders allows for high transaction costs for outsiders. The inclusion of management as owners of company shares is considered to reduce the risk of outsiders because management shares the risk for the company's value. Research on managerial ownership structure on firm value conducted by Sukirmi (2012); Pujiat (2009); Shan (2017) shows that managerial ownership has a negative effect on firm value. Based on the explanation above, the hypothesis proposed in this research is as follows. Hypothesis 4: Managerial Ownership has a negative effect to firm value. Institutional ownership has an important role for companies to carry out more optimal supervision so that the impact of asymmetric information between management and shareholders can be reduced. Research conducted by Benjamin et al., (2016) and Abdelsalam et al., (2008) states that there is a positive influence between institutional ownership on the dividend payout ratio. so the researcher formulates the fifth hypothesis as follows: Hypothesis 5: Institutional ownership has a positive effect on dividend payout ratio. Firm value is influenced by institutional ownership as tested by Haryono et al., (2017), Sukirmi (2012); Ratnawati et al., (2018) show that institutional ownership has a positive effect on firm value. Research result Haryono et al., (2017) show that ownership by institutional investors encourages management as agents to work optimally for the interests and welfare of shareholders. So the researcher formulated the sixth hypothesis as follows: Hypothesis 6: Institutional ownership has a positive effect on firm value.

The birds in hand theory, it states that dividend policy affects to the firm value, this means that dividend policy will affect share prices. Rajverma et al., (2018) stated that the dividend payout ratio has a positive effect on firm value, which is supported by the research results of Sujoko and Soebiantoro (2007). Thus, the hypothesis proposed is as follows: Hypothesis 7: Dividend Payout Ratio has a positive effect on firm value.

The firm size variable has a positive influence on the dividend payout ratio as Al-Malkawi's (2007) research. The DPR variable has a positive effect on firm value in accordance with research by Rajverma et al., (2018). Meanwhile, the firm size variable has a positive effect on firm value in accordance with research by Arilaha (2009). The results of this research need to be continued by examining the influence of the dividend payout ratio variable as a mediating variable that influences the relationship between firm size and firm value. Thus, the hypothesis proposed is as follows: Hypothesis 8: The effect of firm size on firm value is mediated by the Dividend Payout Ratio. Dividend distribution is related to signal theory.

As an agent, management provides signals through financial reports about the company's condition. One form of this signal is dividend payments. Increased dividend payments are considered a good signal of the company's condition and indicate the prospect of high company profitability in the future. This has an impact on increasing share prices when the company distributes increased dividends and decreasing share prices if the dividends paid decrease. This shows that dividend payments affect firm value. Research conducted by Dewi (2008) and also Pujiat (2009) shows that the managerial ownership variable has an influence on firm value with a negative relationship direction. And research by Rajverma et al., (2018) suggests that the dividend payout ratio positive effect on firm value, which is supported by the research results of Sujoko and
Research conducted by Haryono, et al., (2017); Sukirmi (2012) and Ratnawati, et al., (2018) state that institutional ownership has a positive effect on firm value. Meanwhile, research by Rajverma et al., (2018) suggests that the dividend payout ratio positive effect on Firm value, which is supported by the research results of Sujoko and Soebiantoro (2009). For this reason, the final hypothesis was derived by looking at and studying further the influence of institutional ownership on firm value with the dividend payout ratio as mediation. Hypothesis 10: The influence of institutional ownership on firm value is mediated by the Dividend Payout Ratio.

4. RESULTS AND DISCUSSION

Descriptive statistics

Descriptive statistics that will be discussed include the amount of data (N), minimum value, maximum value, sample average (mean), and standard deviation of each research variable. The minimum value is the lowest value for the size of the variable in the research, the maximum value is the highest value for the size of the variable in the research, the mean value is the size of the value the average of the variables in the research, while the standard deviation is a data deviation that interferes with the variable. The standard deviation of the research variables shows a value that is smaller than the mean value, meaning that there is a small variation (distribution) or there is no fairly small gap between the lowest and highest values. So it can be concluded that the variable data is good or in other words the data is normally distributed.

Table1. Descriptive Statistic

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBV</td>
<td>36</td>
<td>.32</td>
<td>1.94</td>
<td>.9564</td>
<td>.43759</td>
</tr>
<tr>
<td>UP</td>
<td>36</td>
<td>1.260</td>
<td>16.60</td>
<td>14.3897</td>
<td>1.07304</td>
</tr>
<tr>
<td>DPR</td>
<td>36</td>
<td>10.23</td>
<td>50.87</td>
<td>29.4978</td>
<td>11.53900</td>
</tr>
<tr>
<td>KM</td>
<td>36</td>
<td>.60</td>
<td>5.91</td>
<td>1.4525</td>
<td>1.01738</td>
</tr>
<tr>
<td>KI</td>
<td>36</td>
<td>47.54</td>
<td>93.00</td>
<td>71.8908</td>
<td>11.77676</td>
</tr>
</tbody>
</table>

Source: SPSS 23 output

Classic assumption test

Normality test

The normality test aims to test whether in the regression model, the confounding variables (residuals) have a normal distribution or not. A good regression model has a normal or close to normal distribution. Testing can be done by looking at the P plot graph, namely by looking at the distribution of data around the diagonal line and following the direction of the diagonal line. Apart from that, you can also use the Kolmogorov-Smirnov non-parametric statistical test, namely the residual data is normally distributed (Asymp.Sig ≥ 0.05). Normality testing for equation 1 and equation 2 can be seen in figures 1 and 2 for the P plot graph as follows:
Multicollinearity Test

According to Ghozali (2013), analytical tools commonly used by every researcher in making test decisions include multicollinearity tolerance and Variance Inflation Factor (VIF). A model is said to be free from multicollinearity if it has a tolerance value of not less than 0.10 and has a VIF value of less than 10.

Table 2. Multicollinearity Test – I

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td>.930</td>
<td>1.075</td>
</tr>
<tr>
<td>UP</td>
<td></td>
<td>.608</td>
<td>1.645</td>
</tr>
<tr>
<td>KM</td>
<td></td>
<td>.689</td>
<td>1.450</td>
</tr>
<tr>
<td>KI</td>
<td></td>
<td>.716</td>
<td>1.397</td>
</tr>
</tbody>
</table>

Source: SPSS 23 output

Based on table 2, it can be seen that all independent variables have a VIF (Variance Inflation Factor) number below 10 with a tolerance number showing a value of more than 0.1. Thus, it can be said that the model formed does not contain any symptoms of multicollinearity between the independent variables in the equation one regression model.

Meanwhile, the multicollinearity test for the dependent variable firm value (PBV) can be seen in table 6 as follows:

Table 3. Multicollinearity Test – II

<table>
<thead>
<tr>
<th>Model</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UP</td>
<td>.930</td>
<td>1.075</td>
</tr>
<tr>
<td>KM</td>
<td>.608</td>
<td>1.645</td>
</tr>
<tr>
<td>KI</td>
<td>.689</td>
<td>1.450</td>
</tr>
<tr>
<td>DPR</td>
<td>.716</td>
<td>1.397</td>
</tr>
</tbody>
</table>

Source: SPSS 23 output

Based on table 3, it can be seen that all independent variables have a VIF (Variance Inflation Factor) number below 10 with a tolerance number showing a value of more than 0.1. Thus, it can be said that the model formed does not contain any symptoms of multicollinearity between the independent variables in the second equation regression model.

Heteroscedasticity Test

According to Imam Ghozali (2013), heteroscedasticity does not occur in data if there is no clear pattern (waves, widening, then narrowing) on the scatterplot graph and the points spread above and below the number 0 on the Y axis.
Based on Figure 3, it can be seen that the points are spread randomly, do not form a clear or regular pattern, and the points are spread above and below the number 0 on the Y axis. Thus, it can be said that there is no symptom of heteroscedasticity in equation one. Based on Figure 4, it can be seen that the points are spread randomly, not forming a clear or regular pattern, the points are spread above and below the number 0 on the Y axis. So it can be concluded that there are no symptoms of heteroscedasticity in the second equation.

Test Auto correlation

According to Ghozali (2013), to detect whether there is autocorrelation or not, you can use the Durbin-Watson Test (DW test). The initial step is to find the dW value from the regression analysis and then look for the dL dan dU value in the table. No there is positive or negative auto correlation if \(d_U < d_W < 4 - d_U\).

The results of the Durbin Watson test can be seen in tables 4 and 5, as follows:

<table>
<thead>
<tr>
<th>Table 4. Autocorrelation Test – I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

Based on table 4 above, the dw value is 2.195. This dw value will be compared with the table value at 5% significance, \(n = 36\) and \(k = 3\), then in the Durbin Watson table you will get the value \(d_L = 1.2953\) \(d_U = 1.6539\) and \(4 - d_U = 2.3461\). Because the dw value is in the position \(d_U < d_W < 4 - d_U\), it can be concluded that there is no positive or negative auto correlation and this means that there is no auto correlation so that the results of the decisions taken are not rejected.

Based on table 5 above, the dw value is 1.835. This dw value will be compared with the table value at 5% significance, \(n = 36\) and \(k = 4\), then in the Durbin Watson table you will get the value \(d_L = 1.2358\) \(d_U = 1.7245\) and \(4 - d_U = 2.165\). Because the dw value is in the position \(d_U < d_W < 4 - d_U\), it can be concluded that there is no positive or negative auto correlation and this means that there is no auto correlation so that the results of the decisions taken are not rejected.

Results of Multiple Regression Analysis

In this study, 2 (two) regression equation models were used, namely the first or first equation, used to determine the magnitude of the influence of firm size, managerial ownership and institutional ownership on the dividend payout ratio (DPR). Meanwhile, the second equation is used to determine the magnitude of the influence of firm size, managerial ownership (MO), institutional ownership (IK), dividend payout ratio (DPR) on firm value (PBV). The results of multiple linear regression analysis to determine the influence of firm size, managerial ownership and institutional ownership on DPR in manufacturing companies listed on the IDX during the research period, can be seen in the following table:

<table>
<thead>
<tr>
<th>Table 6. Multiple Regression Analysis – First Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1 (Constant)</td>
</tr>
<tr>
<td>UP</td>
</tr>
<tr>
<td>KM</td>
</tr>
<tr>
<td>KI</td>
</tr>
</tbody>
</table>

a. Dependent Variable: DPR

Source: SPSS 23 output
Based on the test results presented in table 6, the regression equation can be prepared as follows:

\[
\text{DPR} = 20.826 + 0.033 \text{ UP} - 2.459 \text{ KM} + 0.164 \text{ KI} + \varepsilon_1
\]

The constant \((\alpha)\) of 20.826 indicates that if the variables of firm size, managerial ownership and institutional ownership are equal to 0, then the dividend payout ratio (DPR) variable is equal to 20.826. Based on table 6, it can be seen that firm size and institutional ownership in manufacturing companies listed on the IDX have a positive influence on DPR with regression coefficients of 0.033 and 0.164. This can be interpreted as firm size and institutional ownership has a unidirectional influence on the DPR, meaning that increasing the size of the company and also share ownership by an institution will increase the proportion of dividends distributed to shareholders.

Meanwhile, managerial ownership has a negative influence on DPR with a regression coefficient of -2.459; This means that managerial ownership has a negative influence on DPR, which means that the companies sampled in determining dividend distribution policies do not pay attention to managerial ownership, in other words, the size of the dividends distributed is not influenced by the size or size of managerial share ownership. The results of multiple linear regression analysis to determine the influence of DPR, firm size, managerial ownership and institutional ownership on firm value (PBV) in manufacturing companies listed on the IDX during the research period, can be seen in the following table:

**Table 7. Multiple Regression Analysis – Second Equation**

Source: SPSS 23 output

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-1.402</td>
<td>1.112</td>
<td>-1.761</td>
<td>.051</td>
</tr>
<tr>
<td>UP</td>
<td>-0.046</td>
<td>.614</td>
<td>-0.041</td>
<td>.609</td>
</tr>
<tr>
<td>DPR</td>
<td>0.012</td>
<td>.006</td>
<td>1.033</td>
<td>.009</td>
</tr>
<tr>
<td>KM</td>
<td>-0.035</td>
<td>.040</td>
<td>-0.037</td>
<td>.028</td>
</tr>
<tr>
<td>KI</td>
<td>-0.005</td>
<td>.006</td>
<td>-1.458</td>
<td>.088</td>
</tr>
</tbody>
</table>

a. Dependent Variable: PBV

From table 7, it can be seen that the variables firm size and DPR in manufacturing companies listed on the IDX have a positive influence on DPR with regression coefficients of 0.169 and 0.012 respectively. This can be interpreted that firm size and DPR have a unidirectional influence on firm value (PBV). This means that every time there is an increase in firm size and DPR, the firm value of manufacturing companies listed on the IDX will increase.

**Goodness of Fit**

According to Ghozali (2013), the results of the model feasibility test (Goodness of Fit) aim to test whether the model is fit or not. The F test is carried out by looking at the significance of F in the output of the regression results with a significance of 0.05. If the significance value is greater than 0.05 then the hypothesis is rejected, meaning the regression model is not fit. If the significance value is smaller than 0.05 then the hypothesis is accepted, which means that the regression model is fit.

**Table 8. Goodness of Fit Test - First Equation**

Source: SPSS 23 output

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1323.667</td>
<td>3</td>
<td>441.223</td>
<td>4.232</td>
<td>.013</td>
</tr>
<tr>
<td>Residual</td>
<td>3356.530</td>
<td>32</td>
<td>104.367</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4660.196</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: DPR
b. Predictors: (Constant), KI, UP, KM

From table 8 of the SPSS results above, it can be seen that the calculated F value of equation one is 4.232 with a significance of 0.013 <0.050, which means that the variables of managerial ownership, institutional ownership and firm size have a significant effect on DPR and the first equation model can be stated as a viable research model.

**Goodness of Fit Test - Second Equation**

Source: SPSS 23 output

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1241.412</td>
<td>4</td>
<td>310.354</td>
<td>5.367</td>
<td>.007</td>
</tr>
<tr>
<td>Residual</td>
<td>4290.143</td>
<td>31</td>
<td>139.354</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5531.555</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: PBV
b. Predictors: (Constant), KI, UP, DPR, KM

From table 8 of the SPSS results above, it can be seen that the calculated F value of equation one is 5.367 with a significance of 0.007 <0.050, which means that the model is fit.
From table 9 of the SPSS results above, it can be seen that the calculated F value of equation one is 4.356 with a significance of 0.007 < 0.050, which means that the variables of managerial ownership, institutional ownership, firm size and have a significant effect on firm value and the second equation model can be stated as a research model that worthy.

Coefficient of Determination Test (R^2)

The function of carrying out the coefficient of determination test (R^2) is to measure to what extent the research model that has been created is able to explain the dependent variable. The coefficient of determination value is between zero and one. A small R^2 value means that the ability of the independent variables to explain the dependent variable is limited. On the other hand, an R^2 that is close to one indicates that the independent variables provide almost all the information needed by the dependent variable (Ghozali, 2013).

Table 10. Test of the Coefficient of Determination (R^2)- First Equation

<table>
<thead>
<tr>
<th>Model</th>
<th>Adjusted R</th>
<th>R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.533a</td>
<td>.284</td>
<td>.217</td>
</tr>
<tr>
<td>Source: SPSS 23 output</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From table 10 of SPSS above, it is known that the coefficient of determination R square (R^2) for equation one is 0.284, which means that the variables firm size, managerial ownership and institutional ownership can explain the dividend payout ratio (DPR) variable of 28.4% while the rest 71.56% is explained by other variables outside the variables of this research.

T Test

The t statistical test is used to show how much influence an independent variable individually has in explaining the dependent variable (Ghozali, 2013).

Hypothesis Test 1: firm size has a positive effect on DPR. The first hypothesis proposed states that firm size positive influence on the DPR. Based on the results of the t test which can be seen in table 6, the calculated t value was 0.20 with a significance value of 0.984 (≥ 0.05). Thus, the first hypothesis is rejected, that firm size in manufacturing companies listed on the IDX for the 2016-2018 period does not have a positive effect on the dividend payout ratio (DPR) because the value is greater than 0.05.

Hypothesis Test 2: Managerial ownership has a positive effect on DPR. The second hypothesis proposed states that managerial ownership positive influence on the DPR. Based on the results of the t test which can be seen in table 6, the calculated t value was -2.441 with a significance value of 0.020 (< 0.05). Thus, the second hypothesis is rejected, that managerial ownership in manufacturing companies listed on the IDX for the 2016-2018 period has a negative effect on the dividend payout ratio (DPR).

Hypothesis Test 3: Institutional ownership has a positive effect on DPR. The third hypothesis proposed states that institutional ownership positive influence on the DPR. Based on the results of the t test which can be seen in table 6, the calculated t value was 0.940 with a significance value of 0.354 (> 0.05). Thus, the third hypothesis is rejected, that institutional ownership in manufacturing companies listed on the IDX for the 2016-2018 period has a positive and insignificant effect on the dividend payout ratio (DPR).

Hypothesis Test 4: Firm size has a positive effect on firm value. The fourth hypothesis proposed states that firm size has a positive effect on firm value (PBV). Based on the results of the t test which can be seen in table 7, the calculated t value was 2.785 with a significance value of 0.009 (< 0.05). Thus, the fourth hypothesis is accepted that the size of while the remaining 64% is explained by other variables outside the variables of this research.
manufacturing companies listed on the IDX for the 2016-2018 period has a positive effect on firm value (PBV).

Hypothesis Test 5: managerial ownership has a positive effect on Mark Company. The fifth hypothesis proposed states that ownership has a positive effect on firm value (PBV). Based on the results of the t test which can be seen in table 7, the calculated t value was 0.887 with a significance value of 0.382 (> 0.05). Thus the hypothesis The fifth was rejected, that managerial ownership had a negative and insignificant effect on firm value (PBV).

Hypothesis Test 6: institutional ownership has a positive effect on Firm value. The sixth hypothesis proposed states that institutional ownership has a positive effect on firm value (PBV). Based on the results of the t test which can be seen in table 7, the calculated t value was -0.838 with a significance value of 0.409 (> 0.05). Thus the sixth hypothesis is rejected, that institutional ownership has a negative and insignificant effect on firm value (PBV).

Hypothesis Test 7: dividend payout ratio (DPR) has a positive effect on Firm value. The seventh hypothesis proposed states that the dividend payout ratio (DPR) has a positive effect on firm value (PBV). Based on the results of the t test which can be seen in table 7, the calculated t value was 1.923 with a significance value of 0.064 (> 0.05). Thus, the seventh hypothesis is rejected, that the dividend payout ratio (DPR) of manufacturing companies listed on the IDX for the 2016-2018 period has a positive and insignificant effect on firm value (PBV).

Ownership (KM), Institutional Ownership (KI) and Firm value (PBV).

The final test is to test the influence of company characteristics, which consist of firm size, managerial ownership (KM), institutional ownership (KI) on firm value (PBV), and mediated by the Dividend Payout Ratio (DPR). Testing hypotheses 8, 9, and 10 is to find out whether the variables firm size, managerial ownership and institutional ownership have a direct effect on firm value, or whether through DPR as an intervening (mediation) variable.

Next, table 13 is compiled to present the magnitude and direction of the regression coefficients, both for the direct and indirect influence of the variables firm size, managerial ownership and institutional ownership on PBV, mediated by the DPR, as follows:

Table 13. Direct and Indirect Influence

<table>
<thead>
<tr>
<th>Information</th>
<th>Independent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficient of direct influence of independent variables on PBV</td>
<td>0.415</td>
</tr>
<tr>
<td>Coefficient of direct influence of independent variables on DPR</td>
<td>0.003</td>
</tr>
<tr>
<td>DPR influence coefficient on PBV</td>
<td>0.327</td>
</tr>
<tr>
<td>Coefficient of indirect influence (through DPR) of independent variables on PBV</td>
<td>0.327 x 0.003</td>
</tr>
<tr>
<td>Indirect influence coefficient – Sobel test</td>
<td>0.01769</td>
</tr>
</tbody>
</table>

Source: Processed Secondary Data, 2018

Based on table 13 above, it can be seen that the coefficient value of the direct influence of the firm size variable (UP) on the firm value variable (PBV) is 0.415, while the influence of the firm size variable is indirect, through the mediation of the dividend payout ratio (DPR) variable, the firm value (PBV) is 0.000981. Thus it can be concluded that the coefficient of the direct relationship is much greater than the indirect relationship, so hypothesis 8 cannot be accepted. These results are strengthened by the results of the Sobel test which has been carried out where the calculated t value < t table. The calculated t value obtained is 0.01769 which is smaller than the t table value of 2.03913 so it can be stated that hypothesis 8 cannot be accepted.
The coefficient value of the direct influence of the managerial ownership (KM) variable on the PBV variable is -0.163; while the influence of the managerial ownership (KM) variable indirectly through the mediation of the DPR variable on PBV is -0.141. Thus, it is concluded that the direct relationship has a smaller coefficient than the indirect relationship, and also because the results of the dividend payout ratio (DPR) significance test on firm value (PBV) are not significant, namely 0.064, hypothesis 9 cannot be accepted. These results are strengthened by the results of the Sobel test which has been carried out where the calculated t value < t table. The calculated t value obtained is -1.4750 which is smaller than the t table value of 2.039513 so it can be stated that hypothesis 9 cannot be accepted.

The coefficient value of the direct influence of the institutional ownership (MI) variable on firm value (PBV) is -0.145, while the indirect influence of the institutional ownership (IO) variable, through the mediation of the DPR variable on PBV is 0.055. Thus it is concluded that the direct relationship has a much smaller coefficient than the indirect relationship, and also because the results of the dividend payout ratio (DPR) significance test on firm value (PBV) are not significant, namely 0.064, hypothesis 10 cannot be accepted. These results are strengthened by the results of the Sobel test which has been carried out where the calculated t value < t table. The calculated t value obtained is 0.7768 which is smaller than the t table value of 2.039513 so it can be stated that hypothesis 10 cannot be accepted.

**Table 14. Summary of Mediation Test Results**

<table>
<thead>
<tr>
<th>No.</th>
<th>Hypothesis</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UP against PBV in DPR mediation</td>
<td>Rejected</td>
</tr>
<tr>
<td>2</td>
<td>KM against PBV in DPR mediation</td>
<td>Rejected</td>
</tr>
</tbody>
</table>

Source: Processed Secondary Data, 2018

The following are the results of path analysis as in Figure 4 below:

**Figure 4. Path analysis**

Discussion
Based on the research results which have been analyzed statistically using multiple linear regression, there are things that need to be considered regarding firm size (UP), managerial ownership (KM) and institutional ownership (KI) on firm value (PBV) with dividend payout ratio (DPR) as an intermediary, below we will discuss the findings from the test results above.

The influence of firm size on the dividend payout ratio
Based on the first hypothesis proposed, it states that firm size has positive effect on DPR cannot be accepted because the results of the t test which can be seen in table 6, obtained a calculated t value of 0.20 with a significance value of 0.984 (≥ 0.05). Thus, the hypothesis which states that firm size has a positive effect on the dividend payout ratio (DPR) is rejected. So this research shows that firm size does not influence the determination of the amount of dividends distributed to shareholders. This result is strengthened by research conducted by Idawati & Sudiartha (2014) who found evidence that firm size as proxied by the Natural Log of Total Assets had no effect on dividend policy as well as the research results of Akbar & Fahmi (2020) which found evidence that firm size did not influence dividend policy.

The direction of the positive relationship in this research is proven by empirical data which shows that firm size and dividend payout ratio (DPR) have a unidirectional relationship. The insignificant results of this research could be because large companies will not necessarily pay large dividends to shareholders, but it could be that these large companies will use their profits to pay debts or also for company expansion purposes.

The influence of managerial ownership on the dividend payout ratio
The second hypothesis proposed states that managerial ownership positive influence on the DPR. Based on the results of the t test which can be seen in table 6, the calculated t value was -2.441 with a significance value of 0.020 (<0.05). Thus, the second hypothesis is rejected, that managerial ownership in manufacturing companies listed on the IDX for the 2016-2018 period has a negative effect on...
the dividend payout ratio (DPR). This is in line with research conducted by Sisca Christianty Dewi (2008) which shows that managerial ownership has an influence on dividend payments where the results show that managerial ownership has a negative influence on the company's dividend payment policy. According to Sisca Christianty Dewi (2008), the greater the level of share ownership by management in the company, the more management will think about managing the company better by retaining the profits earned by the company for the company's development or expansion.

**The Influence of Institutional Ownership on the dividend payout ratio**

The third hypothesis proposed states that institutional ownership positive influence on the DPR. Based on the results of the t test which can be seen in table 6, the calculated t value was 0.940 with a significance value of 0.354 (> 0.05). Thus, the third hypothesis is rejected, that institutional ownership in manufacturing companies listed on the IDX for the 2016-2018 period has no effect on the dividend payout ratio (DPR).

The results of this research are in line with the results of research conducted by Jayanti and Puspitasari (2017) where institutional ownership has no effect on the policy of providing dividends to holders. According to them, whether large or small the amount of share ownership by an institution in the ownership structure of manufacturing companies in Indonesia has no effect on the distribution of dividends given to shareholders. The insignificant influence of share ownership by an institution on dividend policy is thought to be because institutional investors have a tendency to choose long-term interests rather than short-term interests which are simply to obtain funds from distributed profits. Institutional shareholders prefer companies that invest and grow their profits to enlarge their business or expand.

**The influence of firm size on firm value**

The fourth hypothesis proposed states that firm size has a positive effect on firm value (PBV). Based on the results of the t test which can be seen in table 7, the calculated t value was 2.785 with a significance value of 0.009 (< 0.05). Thus, the fourth hypothesis is accepted that the size of manufacturing companies listed on the IDX for the 2016-2018 period has a positive effect on firm value (PBV). Large firm sizes which have large resources and assets are also considered more capable of controlling and increasing firm value. If the company has large total assets, the management as the actor and controller of the company is considered to have more freedom in using the assets in the company. The freedom that management has in controlling the company will increase firm value. This is supported by the results of research by Arilaha (2009), Sujoko and Soebiantoro (2007) and Iswahjuni et al., (2018) which was conducted on companies listed on the BEI, finding evidence that firm size has a positive effect on firm value, which is supported in research conducted by Iswahjuni et al., (2018), results showed that the larger the firm size, the greater firm value. This happens because companies with a large size are better able to control market conditions in the face of economic competition which can reduce uncertainty in the company's course. Large companies find it easier to obtain funds from the capital market compared to small companies.

The same opinion was also conveyed by Sujoko and Soebiantoro (2007) where investors tend to consider or choose large companies over small companies when buying shares. According to investors, firm size is used as a benchmark with the assumption that the larger the firm size, the better the company's performance so that firm value in their eyes is better compared to small companies.

**The Influence of Managerial Ownership on Firm value**

The sixth hypothesis proposed states that ownership has a positive effect on firm value (PBV). Based on the results of the t test which can be seen in table 7, the calculated t value was -0.887 with a significance value of 0.382 (> 0.05). Thus the sixth hypothesis is rejected, that managerial ownership does not have a positive effect on firm value (PBV). The results of this research are also supported by other researchers who conducted research on managerial ownership structure on firm value, such as that done by Sukirni (2012); Pujiat (2009); Shan (2017) shows that managerial ownership has a negative effect on firm value. According to Pujiat (2009), an increase in
Managerial ownership in a company will have an impact on a lack of market response because the market assumes that the higher the level of managerial ownership within a company will actually cause the corporate governance system to tend to be only oriented towards the interests of the manager while interests outside the manager will tend to be ignored. This decline in firm value was caused by opportunistic actions carried out by managerial shareholders.

Managerial ownership wants high income compared to the company's investment growth, so if managerial ownership is high then the market will tend to react negatively and cause the firm value to fall. Wardhani (2006) states that if the company's ownership structure is owned by the board of directors or board of commissioners, the board will tend to take actions that benefit them personally. Therefore, with increasing ownership of the company owned by the directors, the decisions taken by the directors will be more likely to benefit themselves and overall will be detrimental to the company so that the firm value will tend to decrease.

The Effect of Institutional Ownership on Firm value

The seventh hypothesis proposed states that institutional ownership has a positive effect on firm value (PBV). Based on the results of the t test which can be seen in table 7, the calculated t value was -0.838 with a significance value of 0.409 (> 0.05). Thus, the seventh hypothesis is rejected, that institutional ownership has a negative and insignificant effect on firm value (PBV). The negative and insignificant effect of institutional ownership on firm value (PBV) was also found in research conducted by Azizah (2019), where the high or low ratio of institutional share ownership in a company does not affect firm value because institutional investors cannot directly supervise company management. Well, apart from that because institutional investors usually invest their capital in many companies so they are more likely to side with or believe in management decisions and it could be said that institutional ownership does not play a role in decision making and also institutional ownership is not able to influence firm value.

The sixth hypothesis proposed states that the dividend payout ratio (DPR) has a positive effect on firm value (PBV). Based on the results of the t test which can be seen in table 7, the calculated t value was 1.923 with a significance value of 0.064 (> 0.05). Thus, the fifth hypothesis is rejected, that the dividend payout ratio (DPR) of manufacturing companies listed on the IDX for the 2016-2018 period has no effect on firm value (PBV). The results of this research are also strengthened by research conducted by Masrifa (2012) where it turns out that what was originally suspected that the dividend payout ratio had a positive effect on firm value was not proven.

The dividend distribution policy is one of the decisions among many important company policies that must be taken by the company. The dividends received by shareholders will determine the welfare of shareholders and also firm value in the future. The dividend payout ratio (DPR) does not have an effect on firm value in this research, this could be because many of the companies, in this case in the manufacturing sector, most of the shares are still owned by the family of the company's management who occupy quite important positions in determining policy and governance company decisions such as directors and board of commissioners.

The lack of influence of the dividend payout ratio (DPR) on firm value shows that not all investors want dividend distribution, but most investors prefer capital gains. Capital gains obtained from the excess difference from selling shares when share prices increase are more desired by investors.

Firm size on Firm value Through the dividend payout ratio (DPR).

Based on the regression results in the first equation, it is known that firm size does not have a positive effect on the dividend payout ratio (DPR) where the statistical t value is 0.20 with a significance value of 0.984 (> 0.05). Meanwhile, in the second equation, it is known that firm size has a positive effect on firm value (PBV) with a statistical t value which can be seen in table 7 of 2.785 with a significance value of 0.009 (<0.05). Then after we enter the mediating variable, by comparing the coefficient value of the direct influence with the indirect influence (coefficient of mediating
influence / dividend payout ratio) where the indirect influence coefficient is obtained from multiplying the coefficient of the influence of firm size on the dividend payout ratio (DPR) of 0.003 with The coefficient of the influence of firm size on firm value (PBV) is 0.415, resulting in a value of 0.001. After carrying out the calculations, it can be seen that the effect of firm size on firm value mediated by the dividend payout ratio (DPR) is not proven because the results of the direct effect of firm size on firm value are greater than the indirect effect, the coefficient of the indirect effect is 0.018 while the effect directly equal to 0.415. Likewise, when a mediation test is carried out using the Sobel test with a coefficient value of 0.033, a coefficient value of Sb of 1.668, a coefficient b value of 0.012 and a coefficient value of Sb of 0.006, the calculated t value is 0.018. So it can be concluded that the influence of firm size on firm value mediated by the dividend payout ratio (DPR) cannot be accepted because the calculated t value is smaller than the t table. From the calculation results, the calculated t value is 0.01769, which is smaller than the t table of 2.039513.

Managerial Ownership of Firm value through the dividend payout ratio

Based on the regression results in the first equation, it is known that managerial ownership has a negative effect on the dividend payout ratio (DPR) where the statistical t value is -2.441 with a significance value of 0.020 (<0.05).

Meanwhile, in the second equation, it is known that managerial ownership does not have a negative effect on firm value (PBV) with a statistical t value which can be seen in table 7 of -0.887 with a significance value of 0.382 (>0.05). Then after we enter the mediating variable, by comparing the coefficient value of the direct influence with the indirect influence (coefficient of mediating influence / dividend payout ratio) where the coefficient of indirect influence is obtained from the product of the coefficient of the influence of managerial ownership on the dividend payout ratio (DPR) of -0.430 with a coefficient of the influence of managerial ownership on firm value (PBV) of -0.163, resulting in a value of 0.070. After carrying out the calculations, it can be seen that the effect of managerial ownership on firm value mediated by the dividend payout ratio (DPR) is proven to be unable to mediate even though the results of the direct effect of managerial ownership on firm value are apparently smaller than the indirect effect. The indirect effect coefficient is 0.070 while the direct effect is -0.163, but because the results of the dividend payout ratio (DPR) significance test on firm value (PBV) are not significant, namely 0.064, it can be concluded that the effect of managerial ownership on firm value is mediated by dividend payout. ratio (DPR) is unacceptable. The mediation test carried out using the Sobel test also produced the same or unacceptable results, where the coefficient a value was -2.459, the S coefficient value a was 1.007 the coefficient b value was 0.012 and the coefficient Sb value was 0.006, so the calculated t value was obtained of -1.4750. So it can be concluded that the influence of managerial ownership on firm value mediated by the dividend payout ratio (DPR) cannot be accepted because the calculated t value is smaller than the t table. From the calculation results, the calculated t value is -1.4750, which is smaller than the t table of 2.039513.

Institutional Ownership of Firm value through the dividend payout ratio

Based on the regression results in the first equation, it is known that institutional ownership has no positive effect on the dividend payout ratio (DPR) where the statistical t value is 0.940 with a significance value of 0.354 (> 0.05). Meanwhile, in the second equation, it is known that institutional ownership has a negative effect on firm value (PBV) with a statistical t value which can be seen in table 7 of -0.838 with a significance value of 0.409 (>0.05). Then after we enter the mediating variable, by comparing the coefficient value of the direct influence with the indirect influence (coefficient of mediating influence / dividend payout ratio) where the coefficient of indirect influence is obtained from multiplying the coefficient of the influence of institutional ownership on the dividend payout ratio (DPR) of 0.167 with The coefficient of the influence of institutional ownership on firm value (PBV) is -0.145, resulting in a value of -0.024. After carrying out the calculations, it can be seen that the influence of firm size on firm value mediated by the dividend payout ratio (DPR) is not proven to be able to mediate, although the results of the direct influence of institutional
ownership on firm value are apparently smaller than the indirect influence. The indirect effect coefficient is -0.024 while the direct effect is -0.145, but because the results of the dividend payout ratio (DPR) significance test on firm value (PBV) are not significant, namely 0.064, it can be concluded that the effect of managerial ownership on firm value is mediated by dividends. payout ratio (DPR) is unacceptable.

Indirect influence testing or better known as mediation testing carried out using the Sobel test also produces results that are not much different or unacceptable, where the coefficient a value is 0.164, the S coefficient value a is 0.174, the coefficient b value is 0.012 and the coefficient value Sb is 0.006, so the calculated t value is 0.7768. So it can be concluded that the influence of institutional ownership on firm value mediated by the dividend payout ratio (DPR) cannot be accepted because the calculated t value is smaller than the t table. From the calculation results, the calculated t value is 0.7768, which is smaller than the t table of 2.039513.

5. CONCLUSION
In this research, the influence of firm size, managerial ownership and institutional ownership on firm value can be seen with the dividend payout ratio (DPR) predicted as a mediating variable, where the independent variable is tested directly or indirectly for its influence on the dependent variable.

Based on the results of data analysis and discussions that have been carried out, the following conclusions can be drawn:
1. Differences in research results with previous research occur due to differences in research models, differences in the use of intervening variables used which can produce different relationships, and due to differences in the theoretical basis underlying the research.
2. In the first equation model, hypothesis 1 which states that the influence of firm size has a positive effect on the dividend payout ratio (DPR) is rejected. Hypothesis 2 which states that the influence of managerial ownership has a positive effect on the dividend payout ratio (DPR) is rejected. Likewise, hypothesis 3 which states that the influence of institutional ownership has a positive effect on the dividend payout ratio (DPR) is also rejected.
3. In the second equation model, hypothesis 4 which states that firm size has a positive effect on firm value is accepted. Hypothesis 5 which states that managerial ownership has a positive effect on firm value is rejected. Hypothesis 6 which states that institutional ownership has a positive effect on firm value is rejected. Hypothesis 7 which states that the dividend payout ratio (DPR) has a positive effect on firm value is rejected.

Based on the mediation test, it shows that there is no influence of firm size on firm value (PBV) which is mediated by the dividend payout ratio (DPR) because the coefficient value of the indirect influence (intervening influence coefficient) is smaller than the coefficient value of the direct influence of the independent variable on the dependent variable. This is also confirmed by the results of the sobel test where the results of the sobel test show that the calculated t value is smaller than the t table value.

REFERENCES


