Factors Influencing Policy Dividends in Manufacturing Companies that Listed on Indonesia Stock Exchange

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Abstract
This research aims to investigate how dividend policy, as measured by the Dividend Payout Ratio, is influenced by firm Size, Liquidity, Profitability, Liquidity measured by the Current Ratio, and solvability measured by the Debt to Equity Ratio. This study's sample consists of all manufacturing businesses that will be listed on the Indonesia Stock Exchange between 2017 and 2021. This study used a sample of 22 manufacturing companies. The examination procedure utilized in this study is relapse utilizing board information. The findings demonstrated that both Size and Debt positively and significantly influenced the Dividend Payout Ratio to Equity Ratio. On the other hand, the Dividend Payout Ratio was significantly and negatively impacted by the Current Ratio and Return on Equity.

Keywords:
Current Ratio;
Debt to Equity Ratio;
Dividend Payout Ratio;
Return On Equity;
Size;

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1 Introduction

In determining the dividend policy, the financial manager can consider how far the financing sources are needed in financing the company's operations. This must be calculated correctly so that later it can be accounted for, where profits invested for operational activities are the rights of shareholders and are not distributed as dividends. Therefore management must be able to consider this risk (Hasnawati, 2017).

PT. Nippon Indosari Corpindo Tbk (ROTI) will distribute cash dividends of IDR 350 billion or the equivalent of IDR 60.2 per share. This was agreed upon at the GMS. The shareholders agreed that the dividends would be distributed quickly, and the management revealed that the amount was following the proposal submitted to the shareholders. This is a form of appreciation for the support given during the Covid 19 Pandemic. Even amid a pandemic hitting Indonesia, the company can still record good yearly performance (Bisnis.com, 2022). The phenomenon regarding dividend policy is still often debated because, until now, there has yet to be a universal explanation that this can be accepted by the behavior of companies that determine dividend distribution. Therefore dividends are one of ten problems in financial economics that will be difficult to solve (Marcus Bealey & Myers, 2008).

<table>
<thead>
<tr>
<th>Variables</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPR</td>
<td>47.53 %</td>
<td>46.37 %</td>
<td>47.06 %</td>
<td>53.98 %</td>
<td>58.24 %</td>
</tr>
<tr>
<td>DER</td>
<td>86.87 %</td>
<td>67.96 %</td>
<td>70.46 %</td>
<td>66.60 %</td>
<td>69.04 %</td>
</tr>
<tr>
<td>ROE</td>
<td>23.83 %</td>
<td>21.47 %</td>
<td>19.55 %</td>
<td>13.21 %</td>
<td>16.36 %</td>
</tr>
<tr>
<td>CR</td>
<td>251.46 %</td>
<td>234.62 %</td>
<td>231.20 %</td>
<td>248.49 %</td>
<td>251.15 %</td>
</tr>
<tr>
<td>Ln</td>
<td>29.56 %</td>
<td>29.67 %</td>
<td>29.74 %</td>
<td>29.78 %</td>
<td>29.87 %</td>
</tr>
</tbody>
</table>

Source: www.idx.co.id (data processed by researchers)

The highest average rate of development of the Debt to Equity Ratio (DER) was in 2017 at 86.87% then the lowest value was seen in 2020 at 66.60%. The highest average value of Return on Equity (ROE) was in 2017 at 23.83%, and the lowest value was seen in 2020 at 13.21%. The highest average Current Ratio (CR) in 2017 was 251.46%, and the lowest average in 2019 was 231.20%. The average value of Company Size has increased consistently every year, with the highest value in 2021 and the lowest average in 2017 of 29.56%.

Research by Khan et al. (2016), showed negative and significant results between Solvency and dividend policy. Different results were found by Yarram (2015), showing significant positive results on dividend policy. Meanwhile, Maldajian (2013), research shows that Solvency has an insignificant positive effect on dividend policy.

Hakeem & Bambale (2016), found that Profitability significantly impacts dividend policy, whereas Gupta & Banga (2010), found that Profitability has a negligible impact on dividend policy. Different findings from Kamierska-Jówiak's (2015), study indicate that Profitability significantly adversely affects dividend policy. The findings support Mui & Mustapha's (2016), study that Profitability has a negligible negative impact on dividend policy.

Ullah (2019), reveals that Liquidity significantly impacts dividend policy. Additionally, the findings of Rehman & Takumi's (2012), study indicate that Liquidity has a positive but non-significant impact on dividend policy. Rather than the exploration results directed by Aqel (2016), Liquidity significantly affects profit strategy. The findings of Hung et al. (2018), demonstrate that dividend policy is significantly influenced by company size. The findings support the findings of Jabbouri's (2016), study that company size positively impacts dividend policy. According to various Fatemian & Hooshyarzade (2016) findings, the Size of a company has no significant negative impact on dividend policy.

Literature review

Signaling Theory (Signal Theory)

Spence (1973), was the first person to propose the signaling theory, which states that the sender the owner of the information sends a signal or signals in the form of information that reflects a company's condition in a way that is advantageous to investors. According to Hanafi & Halim (2014), any information regarding the condition of shares or companies will always affect investors' decisions as parties who capture both positive and negative signals. According to this theory, fluctuations in market prices will influence the decisions of investors or shareholders.
Irrelevant dividend theory
Nidar (2016), says that neither the stock price nor the cost of capital is affected by the company's dividend policy. According to this theory, a company's value is not determined by how dividends and retained earnings are distributed but rather by the company's capacity to generate profits.

Dividend policy
According to Mustafa (2017), the Dividend policy determines whether the company will distribute dividends to shareholders or retain earnings as retained earnings for future financing. Consequently, the dividend policy is integral to the funding strategy of the business.

Solvability
The ratio used to measure the ratio of debt to capital in this study is “solvability proxied by the Debt to equity ratio. This ratio makes it easier to determine the Size of the difference between the amount of money provided by creditors and the amount of money received from company owners (Herry, 2018).

Profitability
This study proxies profitability by Return on Equity. This ratio is used to measure how much net profit will be generated from each rupiah fund embedded in total equity (Herry, 2018).

Liquidity
Liquidity in this study is proxied by the Current ratio where this ratio is used to measure a company's ability to meet its short-term obligations that are due soon by using the total available current assets (Herry, 2018).

Company Size
Total assets, multiple sales, the average level of sales, and average total assets all contribute to a company's Size. Small businesses will have a more challenging time getting loans than large ones (Sugiarto, 2011).

2 Materials and Methods
The data used is secondary data, and the type of data used is quantitative. Secondary data is managed and processed by other parties obtained from the Indonesia Capital Market Directory and the website www.idx.co.id. The object of this research is a manufacturing company listed on the Indonesia Stock Exchange with a research period of 2017-2021. The population used is a Manufacturing Company listed on the Indonesia Stock Exchange, with as many as 193 companies. In comparison, the samples were taken based on the characteristics of the sample with the research criteria of 22 companies. The data analysis method used in this study uses panel data regression using the software Eviews 10. The variables used in this study consist of four independent variables, namely Solvability ($X_1$), Profitability ($X_2$), Liquidity ($X_3$), and Firm Size ($X_4$), and one dependent variable (dependent variable) is Dividend Policy ($Y$).

3 Results and Discussions
Chow's test

<table>
<thead>
<tr>
<th>Effect Test</th>
<th>Statistics</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section F</td>
<td>5.926076</td>
<td>21</td>
<td>0.0000</td>
</tr>
<tr>
<td>Chi-square cross-sections</td>
<td>99.975798</td>
<td>21</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

The probability value for cross-section F is 0.0000, which means this number is below the value of 0.05, so the selected model is the Fixed Effect Model.
**Hausman test**

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistics</th>
<th>Chi-Sq. df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Random cross-sections</td>
<td>24.364160</td>
<td>4</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

The probability value on the Chi-square shows the number 0.0001, which means that this number is below the value of 0.05, so the selected model is the *Fixed Effect Model*.

**Lagrange multiplier test**

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Cross-section One-sided</th>
<th>period One-sided</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breusch-Pagan</td>
<td>(0.0000)</td>
<td>(0.3372)</td>
<td>(0.0000)</td>
</tr>
<tr>
<td>Honda</td>
<td>(0.0000)</td>
<td>(0.8314)</td>
<td>(0.0092)</td>
</tr>
<tr>
<td>King-Wu</td>
<td>(0.0000)</td>
<td>(0.8314)</td>
<td>(0.2012)</td>
</tr>
<tr>
<td>GM</td>
<td>--</td>
<td>--</td>
<td>(0.0000)</td>
</tr>
</tbody>
</table>

The breusch-Pagan probability value with the number 0.0000 is below the value of 0.05, so the chosen model is the Random Effect Model. After the Chow, Hausman, and Lagrange Multiplier tests were carried out, the regression equation results with the Common Effect Model were obtained.

\[
DPR = 1.4437 + 3.8414DER + \cdot 1.4553ROE + \cdot 0.8991CR + 10.0188\text{Size} + e
\]

**Classical Assumption Test**

**Heteroscedasticity Test**

<table>
<thead>
<tr>
<th>Variables</th>
<th>coefficient</th>
<th>std. Error</th>
<th>t-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.193531</td>
<td>2.825741</td>
<td>0.422378</td>
<td>0.6738</td>
</tr>
<tr>
<td>DER</td>
<td>-0.078409</td>
<td>0.047306</td>
<td>-1.657503</td>
<td>0.1039</td>
</tr>
<tr>
<td>ROE</td>
<td>-0.047734</td>
<td>0.040222</td>
<td>-1.186785</td>
<td>0.2412</td>
</tr>
<tr>
<td>CR</td>
<td>0.038916</td>
<td>0.022584</td>
<td>1.723157</td>
<td>0.0885</td>
</tr>
<tr>
<td>size</td>
<td>-3.800949</td>
<td>9.488872</td>
<td>-0.400569</td>
<td>0.6898</td>
</tr>
</tbody>
</table>

The Glejser test demonstrates that there are no heteroscedasticity issues with the data; It is possible to conclude that the data are free of heteroscedasticity issues based on the probability value of the independent variable whose results are more significant than 0.05, which paves the way for further investigation.

**Multicollinearity Test**

<table>
<thead>
<tr>
<th>DER</th>
<th>ROE</th>
<th>CR</th>
<th>size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000000</td>
<td>0.417253</td>
<td>-0.587045</td>
<td>0.029858</td>
</tr>
<tr>
<td>0.417253</td>
<td>1.000000</td>
<td>-0.176662</td>
<td>-0.107537</td>
</tr>
<tr>
<td>-0.587045</td>
<td>-0.176662</td>
<td>1.000000</td>
<td>-0.032001</td>
</tr>
<tr>
<td>0.029858</td>
<td>-0.107537</td>
<td>-0.032001</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

It can be seen that the relationship between the independent variables is Solvency, Profitability, Liquidity, and Firm Size. Nothing shows a correlation value > 0.09, so it can be decided that in the model, there are no symptoms of multicollinearity.

---

Hypothesis Testing

`t-test`

<table>
<thead>
<tr>
<th>Variables</th>
<th>coefficient</th>
<th>std. Error</th>
<th>t-Statistics</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.443787</td>
<td>0.562791</td>
<td>2.565407</td>
<td>0.0115</td>
</tr>
<tr>
<td>DER</td>
<td>3.841487</td>
<td>0.978374</td>
<td>3.926400</td>
<td>0.0002</td>
</tr>
<tr>
<td>ROE</td>
<td>-1.455370</td>
<td>0.344193</td>
<td>-4.228353</td>
<td>0.0001</td>
</tr>
<tr>
<td>CR</td>
<td>-0.899170</td>
<td>0.266840</td>
<td>-3.369694</td>
<td>0.0011</td>
</tr>
<tr>
<td>size</td>
<td>10.01881</td>
<td>3.715914</td>
<td>2.696190</td>
<td>0.0082</td>
</tr>
</tbody>
</table>

One DER hypothesis testing value is 0.0002 0.05. This demonstrates that DER has a significant and positive impact on dividend policy. The results of the two ROE hypothesis tests have a value of 0.0001 0.05, indicating that the DER in this study is valid. This demonstrates that ROE has a significant and negative impact on dividend policy. Therefore, this study's ROE is accepted.

The value of the three CR hypothesis testing is 0.0011 0.05. Since this demonstrates that CR has a significant and negative impact on dividend policy, this study's CR is accepted. The result of the Size Hypothesis test is 0.0082 0.05. This shows that Size affects profit strategy. As a result, the study's Size is accepted.

`f-test`

<table>
<thead>
<tr>
<th>R-squared</th>
<th>Mean dependent var</th>
<th>0.506383</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted R-squared</td>
<td>SD dependent var</td>
<td>0.471548</td>
</tr>
<tr>
<td>SE of regression</td>
<td>Akaike info criterion</td>
<td>0.821920</td>
</tr>
<tr>
<td>Sum squared residue</td>
<td>Schwarz criterion</td>
<td>1.460215</td>
</tr>
<tr>
<td>Likelihood logs</td>
<td>Hannan-Quinn criteria.</td>
<td>1.080816</td>
</tr>
<tr>
<td>F-statistics</td>
<td>Durbin-Watson stat</td>
<td>1.971116</td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
</tr>
</tbody>
</table>

Based on the results of the f test, it can be seen that the probability value of the F-statistic < 5% significance value (0.000000 <0.05), it can be concluded that there is a significant influence between the independent variables on the dependent variable so that it can be interpreted that the model used in this study is feasible to use.

**Determination Coefficient Test (R²)**

**Solvency Variable Relationship to Dividend Policy**

<table>
<thead>
<tr>
<th>R model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>std. the error in the Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.278 a</td>
<td>0.077</td>
<td>0.053</td>
</tr>
</tbody>
</table>

The determination coefficient (R2) is 0.077, or 7.7%; Solvency's ability to explain the dividend policy variable is minimal because it is influenced by other variables that were not included in the study, whereas Solvency's ability to explain the dividend policy variable is 92.3%.

**Profitability variable relationship to divide policy**

<table>
<thead>
<tr>
<th>R model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>std. The error in the Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.143 a</td>
<td>0.020</td>
<td>0.011</td>
</tr>
</tbody>
</table>

The value of the Coefficient of Determination (R²)equal to 0.020 or 2% of the dividend policy variable can be explained by Profitability and 98%, where the ability of Profitability to explain the dividend policy variable is minimal because it is influenced by other variables not included in the study.
Liquidity variable relationship to dividend policy

<table>
<thead>
<tr>
<th>R model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>std. The error in the Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.552</td>
<td>0.304</td>
<td>0.207</td>
</tr>
</tbody>
</table>

The value of the Coefficient of Determination (R²) equal to 0.304 or 30.4% of the dividend policy variable can be explained by Liquidity and 69.4%, where the ability of Liquidity to explain dividend policy is minimal because it is influenced by other variables not included in the study.

Company size variable relationship to dividend policy

<table>
<thead>
<tr>
<th>R model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>std. The error in the Estimates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.376</td>
<td>0.141</td>
<td>0.013</td>
</tr>
</tbody>
</table>

The value of the Coefficient of Determination (R²) equal to 0.141 or 14.1% of dividend policy can be explained by company size and the remaining 85.9% where the ability of company size to explain dividend policy is minimal because it is influenced by other variables not included in the study.

Influence of Solvency (X₁) Against Dividend Policy (Y)

The hypothesis was tested, and the results indicated that the influence of Solvency on dividend policy had a probability of 0.0002 0.05 and a regression coefficient of 3.841487. Therefore, the first hypothesis is accepted, indicating that solvency significantly and positively impact dividend policy (Kallapur, 1994; Gugler, 2003). The solvency variable can then account for the coefficient of determination (R²) of 0.077, or 7.7%, of the dividend policy variable, and other non-study variables like growth opportunity, business risk, free cash flow, institutional ownership, and sales growth influence the remaining 92.3%. The ratio that is used to measure the ratio of debt to equity is the debt to equity ratio (Anuar & Chin, 2016; Hovakimian et al., 2004). This ratio makes it easier to determine the size of the difference between the amount of money provided by creditors and the amount of money received from company owners (Herry, 2018). According to Brigham & Houston (2019), the signal theory is an action that a company's management will take to inform investors of how management views the company's prospects. Yarram (2015), Sanjari & Zarei (2014), who demonstrated that Solvency proxied by the Debt to Equity Ratio (DER) has a positive and significant effect on dividend policy, concur with the findings of this study.

Effect of Profitability (X₂) on Dividend Policy (Y)

The hypothesis was tested, and the regression coefficient revealed a probability value of 0.0001 0.05 and a -1.455370 effect of Profitability on dividend policy. Therefore, it is possible to conclude that the second hypothesis is true, which indicates that dividend policy is adversely affected in a significant way by Profitability. The profitability variable can then be used to explain the coefficient of determination (R²), which is 0.020, or 2%, of the dividend policy variable. The remaining 98 percent have an impact on various non-study variables. According to Brigham & Houston (2019), Profitability is the ratio used to determine a company's capacity to generate profits. According to Nidar (2016), the Irrelevant Dividend Theory holds that a company's value is determined not by how dividends and retained earnings are divided but by the company's capacity to generate profits. As a result, dividend policy should not be questioned. The results of this study are in line with previous studies conducted by Kaźmierska-Jóźwiak (2015), Khan et al. (2016), and Abdullah (2021), which showed that Profitability proxied by Return on Equity (ROE) has a negative and significant effect on Dividend Policy.
The Effect of Liquidity ($X_3$) on Dividend Policy ($Y$)

The hypothesis was tested, and the results showed that Liquidity had an effect on dividend policy with a regression coefficient of -0.899170 and a probability of 0.0011 0.05. As a result, it is possible to conclude that the third hypothesis is true, which indicates that Liquidity has a significant and negative impact on dividend policy. The liquidity variable can then be used to explain the dividend policy variable's coefficient of determination ($R^2$), which is 0.304, or 30.4%. The remaining 69.4 percent has an impact on non-study variables. This demonstrates that the dividends to be paid are smaller the higher the Liquidity. The company says things are bad for shareholders because when it has much Liquidity, most of the money is put into making it easier for the company to meet its short-term obligations, which will make it less able to pay dividends, which are very few (Sugosh & Artini, 2020). A company's ability to meet its immediate short-term obligations using all available current assets is measured by its current ratio (Herry, 2018). Wolk et al. (2001), indicated that the Signaling theory demonstrates that interested parties and company management share information differently. According to this theory, businesses send signals to people who look at financial statements, especially investors who make investments. The findings of this study are consistent with previous research by (Kashif et al., 2021). Dividend Policy is impacted significantly and negatively by Liquidity as measured by the Current Ratio (CR).

Effect of Firm Size ($X_4$) Against Dividend Policy ($Y$)

The hypothesis that company carving affected dividend policy was tested, and the results showed a regression coefficient of 10.01881 and a probability value of 0.0082 0.05. So the fourth speculation is acknowledged, implying that organization size significantly affects profit strategy. The variable Firm Size can then account for 14.1% of the dividend policy variable's coefficient of determination ($R^2$), and the remaining 85.9% is influenced by other variables not included in the study. The hypothesis that company size affects dividend policy was tested, and the results show that company size has a positive and significant effect on dividend policy (Kravchenko et al., 2019; Gebauer et al., 2011). This is because the larger a company is, the more likely it is that it will be able to pay dividends to large shareholders. Large companies almost certainly have significant assets that can be used to help the company pay dividends. Total assets, some sales, the average level of sales, and average total assets are used to describe a company's Size.2011 Sugarto). According to Hartono (2017), information received by market participants will be analyzed first and interpreted as either a positive signal (good news) or a negative signal (terrible news), according to Signaling Theory.

This study’s findings are consistent with those of previous studies by Hung et al. (2018), Al-Malkawi (2008), Rafique (2012), Yarram (2015), Sanjari & Zarei (2014), Maldajian (2013), Tabari & Shirazi (2014), Hellstrom & Inagambave (2012), Issa (2015), and Waswa et al. (2014), that dividend policy is positively and significantly influenced by company size.

4 Conclusion

The findings demonstrated that company size proxied by Size has a positive and significant effect on dividend policy, Liquidity proxied by Current Ratio (CR) has a negative and significant effect on dividend policy, Profitability proxied by Return on Equity (ROE) has a negative and significant effect on dividend policy (Ichsani & Suhardi, 2015; Bunea et al., 2019), Solvents proxied by Debt to Equity Ratio (DER) have a positive and significant effect on dividend policy.

Conflict of interest statement
The authors declared that they have no competing interests.

Statement of authorship
The authors have a responsibility for the conception and design of the study. The authors have approved the final article.

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References


