THE EFFECT OF LEVERAGE, LIQUIDITY, AND FIRM SIZE ON DIVIDEND POLICY

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ABSTRACT

The purpose of this research is to measure the effects of leverage, liquidity, and firm size on the dividend policy of a manufacturing company listed on the Indonesian Stock Exchange (IDX) from 2018 to 2020. Purposive sampling was applied in this study to pick 43 organizations that met the sample criteria throughout a three-year period from 2018 to 2020, totaling 129 samples. The double linear regression approach with eviews software 12 was used to process the data. Research shows that independent variables leverage, liquidity, and corporate size are simultaneously affecting dependent variable of dividends policy. The result of partial research suggests that leverage with proxy DAR, liquidity with proxy CR does not affect the dividend policy with proxy DPR. Whereas the firm size with proxy SIZE affects the dividend policy.

Keywords : Leverage; Liquidity; Firm Size; Dividend Policy

1. INTRODUCTION

Because of the quick pace of change, every business must continue to innovate in order to stay afloat in today's turbulent waters. Because the digital world is evolving at such a quick pace, businesses must be able to adapt in order to be as successful and efficient as possible. To keep customers interested, the company's product must be innovative, practical, useful, and cost-effective. Customers expect the corporation to provide products as a solution to their concerns. As a result, sufficient funding is required to grow the company and carry out all of its plans. One of the company's sources of funding is external funding. External funding can be obtained from debt and the sale of shares. Stocks are one of the most popular forms of investment by investors. Since the COVID-19 pandemic, stocks have been increasingly in demand, especially by millennials. Sourced from cnbcindonesia.com stated that based on data on the Indonesia Stock Exchange, there was an increase in capital market investors by 56% to 3.88 million investors from 2019 to the end of 2020. C-BEST also recorded an increase in investors up to 35.61% at the end of 2020. This shows a great opportunity to get investors who want to invest in companies, so that the company's finance needs may be met and the business can grow. Investors invest money into the company in the hopes of receiving a significant return in terms of dividends. It's consistent with the company's mission to benefit all of its stakeholders.. Therefore, a dividend policy is needed to determine the amount of dividends to be distributed and determine how much profit is used for the development of the company wisely. A dividend policy determines how much after-tax net income will be dispersed as dividends.

To analyze a dividend policy, the proxy Dividend Payout Ratio (DPR) can be used . Divide the dividend per share by the earnings per share to get the Dividend Payout Ratio (DPR). lower a company's DPR value is, the less interested and confident investors are in investing in it. The higher the DPR, the more interested investors are in the company. However, the DPR that is too high is also not good, because the net profit used for the development of the

company becomes smaller. In this case, if the profit is high but the dividend is low, it should be explained that the company will carry out activities that require considerable funding, such as expansion. Dividend policy is also influenced by several variables, such as leverage, liquidity, and company size.

The first variable is leverage. Leverage is a variable that can measure the acquisition of assets by the source of loan funds or corporate debt. When a company's debt grows, dividends are paid out less frequently because the company's income must be utilized to pay down the debt. In the same way, if the company's debt is lower, the dividend payout will be higher.

The second variable is liquidity. The capacity of a firm to pay it's short-term liabilities is calculated by liquidity. Entire current assets are divided by total current debt to arrive at the current ratio (CR). If the company's liquidity level is higher, it suggests it can satisfy its short-term obligations more easily, resulting in a higher dividend payout. Similarly, if the liquidity level of the company is lower, then the distribution of dividends is also lower.

The last variable is the firm size. The firm size is a calculation that determines the size of the firm [1]. The natural logarithm of total sales can be used to calculating the firm size.

In previous research, by Halim &Hastuti [2] leverage partially had a significant effect on dividend policy. Different results were obtained by Winny Victoria and Viriany [3] and Lidia and Agustine Ekadjaja [4]. According to them, leverage has no significant effect on dividend policy. In liquidity variables, there are also differences in research results about the influence of liquidity. According to Aryanti Dirganingsih and Sufiyanti [5] and Emeka [6], liquidity has a significant effect on dividend policy. According to Winny Victoria and Viriany [3] and Lidia and Agustine Ekadjaja [4], liquidity has no effect on dividend policy. Different results are also obtained in the firm size variables. According to Winny Victoria and Viriany [3], Lidia and Agustine Ekadjaja [4], Yusof and Ismail [7], and Emeka [6] the firm size partially affects dividend policy. Meanwhile, according to Kristian and Viriany [8] and Aryanti Dirganingsih and Sufiyanti [5] the firm size had no significant effect on dividend policy.

As noted in the background, there is an influence of dividend policy and variables that can influence it. Different research results were discovered in prior studies. As a result, by researching manufacturing firms listed on the Indonesia Stock Exchange (IDX) from 2018 to 2020. The goal of this research was to see how debt, liquidity, and business size affected dividend policy.

2. LITERATURE REVIEW

Agency Theory

Agency theory explains that there is a possibility of conflict caused by managers with investors whose interests are conflicting, also explaining the contractual connection of the principal and the agent. Investors certainly want to get profits in the form of dividends in large amounts. While the manager also wants to get a larger amount of profit for the continuity of his company. Therefore, this can lead to conflict between investors and managers. According to Amalia and Hermanto [9], by aligning the interests of investors and conflict management can be minimized, namely by dividing some of the company's profits as dividends for its shareholders. In order for the distribution of profits to be held by the company and distributed as dividends to shareholders can be done properly, a dividend policy

is needed. This theory is the basis for agreeing on cooperation contacts between investors and managers.

The dependent variables in this study, specifically dividend policy, are closely related to this agency theory. If the firm's dividend policy is stable, investors can anticipate to receive more dividends in line with their expectations, so that investors continue to invest in the company even though the company still gets enough profit for the company's development. Furthermore, one of the study's independent variables, leverage, has a connection with the agency's theory. The dividend distribution will be smaller if the leverage is larger. In the same way, if the leverage is smaller, the dividend payout will be higher. Leverage in agency theory can help minimize agency problems. If the company's leverage is higher, then the cost of the agency is higher. Agency theory can minimize conflict between management and shareholders. That way, the management and investors can achieve the desired profit target.

Signaling Theory

Signal theory is the theory of how companies send information signals to stakeholders who need the company's financial statements. The company's internal parties get more accurate and faster information than external parties such as investors. Therefore, external parties also need to be sure that the information they get is correct and accurate. This theory also explains how important company information and financial statements from companies are to investors, to minimize the receipt of inaccurate information about the company [10]. This signal theory is closely related to the dependent variable in this study, namely dividend policy. This signal theory can be the basis for a company's dividend policy to give investors a good signal.

Dividend Policy

The dividend policy of a firm defines whether profits will be shared as dividends to shareholders or will be retained for future corporate investments. Dividend policy is the process of determining how much profit will be shared as dividends to investors and how much earnings the firm will be willing to keep for future growth [8]. The dividend policy will be based on the proxy Dividend Payout Ratio (DPR). The high or low values of a company's DPR have an impact on whether or not investors are interested in investing. As a result, the dividend policy is a decision on how many profit is retained for the company's development and how much is distributed to shareholders.

Leverage

Leverage is a ratio that measures the level of debt used or the amount of debt-financed corporate funding [4]. A company's efforts to purchase assets with debt are described by the leverage ratio [3]. The debt-to-Total Asset Ratio (DAR) will be used to determine leverage in this study. A company's dividend payment will be determined by the high or low value of DAR. As a result, it may be determined that the company's debt is related to the distribution of dividends inside the entity.

Liquidity

Liquidity according to Zahidda and Sugiyono [11] is an overview of how capable the company is of paying off its current liabilities. Liquidity is a ratio that determines how well a

corporation can pay its short-term obligations. As a result, liquidity might be described as a measure the ability of a company to pay it's short-term obligations.

Firm Size

According to Samrotun [1], the firm size is the little or large of the firm size. To determine the firm size, total assets or total sales can be used as a measurement. The firm size was calculated using a natural logarithm of total sales . The size of the firm can impact or determine the amount of dividend distribution. It will be easier to obtain funds as the company grows in size, allowing it to divide the dividend by a higher amount to investors [12].

3. RESEARCH MODEL AND HYPOTHESIS DEVELOPMENT

The Effect of Leverage on Dividend Policy

Leverage has an effect on dividend policy, this might be seen from the measurement of leverage using a debt to asset ratio which divides total debt by total assets. If leverage is high, it means that the company uses a high amount of debt. If leverage is high, then the dividends distributed will be low because the company's profits will be widely used to pay debts. Similarly, if the company's leverage is low, the dividends paid out are higher since the profits are allocated to pay down the debt. As a result, leverage has a negative impact on dividend policy.

The Effect of Liquidity on Dividend Policy

The measurement of liquidity using the current ratio, which divides current assets by current liabilities, shows that liquidity has an influence on dividend policy. When liquidity is high, the firm's capacity to pay short-term debt is high too, and the dividend payout ratio, which measures the company's dividend policy also high..So, liquidity positively affects dividend policy.

The Effect of Firm Size on Dividend Policy

The firm size has an influence on dividend policy, This can be observed in the company's size measurement. by calculating the natural logarithm of total sales. If the firm size is large, then the funding obtained by the company will be large as well, so the dividend policy will be high. In the opposite case, if the firm size is small, then the dividend policy is lower. As a result, the dividend policy is positively influenced by the firm size.

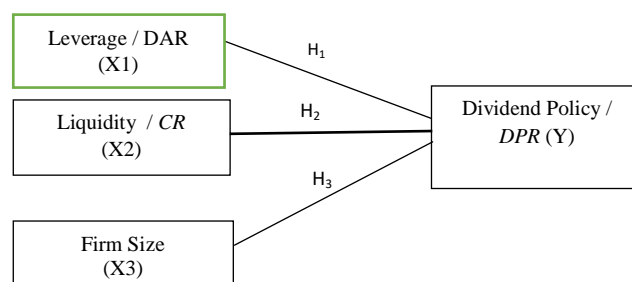The research model of this study is presented in Figure 1 below:

Figure 1 The Research Model

4. RESEARCH METHOD

The study's population is a manufacturing firm that is registered on the Indonesia Stock Exchange (IDX) for the 2018-2020 fiscal year. A purposive sampling approach and the following sample criteria were used in the nonprobability sampling methodology : (a) Manufacturing companies registered on the Indonesia Stock Exchange (IDX) for the period 2018 – 2020; (b) Manufacturing companies that present financial statements with rupiah currency in the period 2018 – 2020; (c) Manufacturing companies present positive profits in the period 2018 – 2020; (d) Manufacturing companies that present dividends in the period 2018 – 2020; (e) Manufacturing companies that present the number of shares in the period 2018 - 2020. The selected research sample is 43 companies. The total of 129 panel data (43 companies times 3 period) were analyzed using multiple regression analysis. Data processing in this study using Eviews 12 software. Following is the operationalization of each research variable as presented in Table 1 as follow:

Table 1 The Operationalization of Research Variables

Variable	Proxy	Adapted from
Dividend Policy	$DPR = \dfrac{Dividend\ per\ Share}{Earning\ per\ Share}$	Winny Victoria & Viriany (2019)
Leverage	$DAR = \dfrac{total\ debt}{total\ assets}$	Lidia & Ekadjaja, A. (2019)
Liquidity	$CR = \dfrac{current\ assets}{current\ liabilities}$	Kristian & Viriany (2021)
Firm Size	SIZE = Ln of Total Sales	Niresh (2014)

The multiple linear regression equation that will be used is as follow:

$$Y = α + β1\ X1 + β2\ X2 + β3\ X3 + e$$

Note :
Y = Dividend Policy; $β_1$-$β_3$ = Regression Coefficient; $α$ = Constant Coefficient; X_1 = Leverage; X_2 = Liquidity; X_3 = Firm Size; e = Error term

Panel data is a research method that combines time series data and cross section data (pooled data). Panel data can be analyzed using three different models: the Common Effect Model (CEM), the Fixed Effect Model (FEM), and the Random Effect Model (REM) (REM). Several tests, including the Chow Test, Hausman Test, and Langrange Multiplier (L-M) Test, must be completed in order to select the best appropriate model.

5. RESULTS

Dividend policy dependent variables (DPR) have an average value (mean) of 0.536272 or 53.6272%, a median of 0.428600 or 42.86%, a maximum of 3.492600 or 349.26%, a minimum of 0.021600 or 2.16%, and a standard deviation of 0.425225 or 42.5225%. The first Independent variable, leverage (DAR) in descriptive statistical test results, showed an average value (mean) of 0.372392 or 37.2392%, a median of 0.340000 or 34%, a maximum value of 0.783046 or 78.3046%, a minimum value of 0.085966 or 8.5966%, and a standard deviation of 0.182015 or 18.2015%. The second independent variable, liquidity (CR) shows a mean of 2.927032 or 292.7032 %, a median of 2.257613 or 225.7613%, a high value (max) of 12.75718 or 1275.718%, a low value (min) of 0.009000 or 0.9%, and a standard deviation of 2.285112 or 228.5112%. Descriptive statistical tests in this study also showed a third independent variable, namely the size of the company (size) has a mean of 29.21171 or 2921.171%, median of 28.83562 or 2883.562%, maximum 34.33705 or 3433.705%, minimum 26.50855 or 2650.855%, and standard deviation 1.856149 or 185.6149%.

According to the Chow Test results, the Chi-square cross-section has a probability value of 0.0000, indicating that the Fixed Effect Model is the superior model to apply.

The results of the Hausman Test show that the random cross-section has a probability value of 0.0002, indicating that the Fixed Effect Model is the superior model to use. Based on the results of the tests, it might be stated that the Fixed Effect Model is the best fit for this study. Due to the use of panel data, the classical assumption test used is the multicollinearity test.

The multicollinearity test results show that all variables have a correlation coefficient value of less than 0.8, which means there is no multicollinearity in this study so that it can be used for regression testing.

The results of the F-test show that probabiity value of F-statistic is 0.000000 which means that all independent variables that are treated like independent variables simultaneously affect the dependent variable significantly. The results of the multiple determinant coefficient test shows that the value of the adjusted R-squared is 0.480500, which means that all independent variables in this study can explain their effect on the dependent variable in this study by 48.05%. Meanwhile, the remaining 51.95% is explained by other variables that are not included in this study.

Table 2 The Results of Hypotheses Testing

Variable	Coefficient	Sig. Value	Results
Constants	31.67460	0.0000	
Leverage (DAR)	-0.425459	0.4034	H1 is rejected
Liquidity (CR)	0.039226	0.2497	H2 is rejected
Firm Size	-1.064460	0.0000	H3 is accepted

The form of the multiple linear regression equation is as follows :

$$Y = 31.67460 - 0.425459\ \beta_1\ DAR + 0.039226\ \beta_2\ CR - 1.064460\ SIZE + E$$

Note :
Y = Dividend Policy; β_1-β_3 = Regression Coefficient; α = Constant Coefficient; X_1 = Leverage; X_2 = Liquidity; X_3 = Firm Size; e = Error Term

Based on the results of the t statistical test, the independent variable leverage has a probability value 0.4034 and a coefficient value of -0.425459, which mean H1 is rejected. Leverage has an insignificant and negative effect on dividend policy. Liquidity has a probability value of 0.2497 and a coefficient value of 0.039226, which means H2 is rejected. Leverage has an insignificant and positive effect on dividend policy. Firm size has a probability of 0.0000 and a coefficient of -1.064460, indicating that H3 is acceptable. The firm size has a significant and negative impact on dividend policy.

6. DISCUSSIONS

Based on the results of the T test data on this study, leverage has a probability value of 0.4034, which means it is greater than 0.05. From these results, it can be concluded that leverage has no effect on dividend policy. This conclusion deviates from the research hypothesis. The result on the regression test performed on the leverage variable is -0.425459 so that it shows a negative or unidirectional direction of the relationship. This is in accordance with the hypothesis. The results of this T test are also in line with previous research conducted by Winny Victoria and Viriany [3] and Lidia and Agustine Ekadjaja [4] which stated that leverage had insignificant effect on dividend policy. But the results are different from previous research by Halim and Hastuti [2] which stated that leverage partially affects the significant effect on dividend policy.

Based on the results of the T test data in this study, liquidity has a probability value of 0.2497, which means it is greater than 0.05. From these results, it can be concluded that liquidity has no effect on dividend policy. This conclusion deviates from the research hypothesis. The result of the regression test conducted on the liquidity variable is 0.039226 so that it shows the direction of the positive or unidirectional relationship. This is in accordance with the hypothesis. The results of the T test are also in line with previous research by Winny Victoria and Viriany [3] and Lidia and Agustine Ekadjaja [4] which stated that liquidity had no effect on dividend policy. However, different results were found by Aryanti Dirganingsih and Sufiyanti [5] and Emeka [6] who stated liquidity had a significant effect on dividend policy.

Based on the results of the T test data in this study, firm size has a probability value of 0.0000, which means it is smaller than 0.05. From these results, it can be concluded that the size of the company partially has an effect on dividend policy. This conclusion is in accordance with the research hypothesis. The result of the regression test conducted on firm size variable is -1.064460, thus showing a negative or unidirectional direction of the relationship. This doesn't fit the hypothesis. The results of the T test study are also in line with Winny Victoria and Viriany [3], Lidia and Agustine Ekadjaja [4], Yusof and Ismail [7], and Emeka [6] who stated that the firm size partially affects dividend policy. While different results were found by Kristian and Viriany [8] and Aryanti Dirganingsih and Sufiyanti [5] who stated that the firm size had no significant effect on dividend policy.

7. CONCLUSIONS

Through several testing stages, this research was performed with the goal of determining the major influence of leverage, liquidity, and firm size on dividend policy on manufacturing companies registered on the Indonesia Stock Exchange (IDX) in 2018-2020 fiscal year. Purposive sampling was utilized in this study to select 43 organizations that met the sample criteria over a three-year period, yielding 129 samples. Using Eviews 12 software, a multiple linear regression method was utilized to process the data.

In the results of significance tests in this study using the Fixed Effect Model (FEM) model, the leverage variable had an insignificant and negative effect on dividend policy. The results of this study deviate from the research hypothesis, which states that leverage has a siginificant and negative effect dividend policy.

Dividend policy is influenced by liquidity variables in a non-significant and positive direction. The findings contradict the research hypothesis, which claims that liquidity has a significant and positive impact on dividend policy.

The firm size has a significant and negative impact on its dividend policy. The findings contradict the research hypothesis, which asserts that firm size has a significant and positive impact on dividend policy.

Some limitations were discovered in this research. Because the study only included three independent variables to explain the impact on dividend policy, the analysis was limited to leverage, liquidity, and firm size. Because it just uses manufacturing companies registered on the Indonesia Stock Exchange (IDX), the discussions in this research is similarly limited. Another limitation is that this research was performed over only three years, from 2018 to 2020, and thus cannot cover a long period of time.

Based on the limitations of this study, it is recommended that future research include additional independent variables in order to perform a more comprehensive analysis. Other independent variables that could be used in future research include free cash flow, collateralizable assets, debt policy, profitability, and economic growth. In order to broaden the scope of sample sizes, it is also recommended to select companies other than manufacturing as examples, such as property, health, agriculture, transportation, technology, and banking. Then it's also a good idea to lengthen the time frame for future study so that it isn't confined to three years.

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