JFBA: Journal of Financial and Behavioural Accounting, Volume 2, Issue 1, 2022, 35-45

Factors Affecting Dividend Policy in Financial Sector Companies in Indonesia: Panel Data Analysis

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Article Info

Keywords:
Profitability;
Managerial Ownership;
Leverage;
Company Size;
Dividend Policy

DOI:
10.33830/jfba.v2i1.3642.2022

Abstract
This study aims to analyze the factors that influence dividend policy in financial sector companies in Indonesia. The independent variables in this study are profitability, leverage, managerial ownership, and firm size. While the dependent variable used is dividend policy. Findings. The results showed that simultaneously all independent variables (leverage, firm size, profitability, and managerial ownership) affected dividend policy (the dependent variable). The percentage of influence of all variables used in this study on dividend policy is 72.52%. At the same time the rest is influenced by other variables equal to 27.48%. Partially, profitability and firm size have a positive relationship to dividend policy.

1. Introduction

In the era of globalization that is increasingly developing lately, a company is required to have clear and precise goals. One of the goals of the company operating is to achieve maximum profit and improve company performance. To achieve company goals, a company must invest. Investment can be interpreted as an act of investing resources or capital at this time with the hope of getting more benefits in the future. These goals are closely related to investor income.

Business developments followed by advances in science and technology create opportunities to increase investment. One of the investment products traded in the capital market that is most in demand by investors is a stock investment. Investors who are interested in investing their fund's in-stock products have the hope that one of them will produce investment returns in the form of dividends. Investments in stocks are considered to have a higher level of risk compared to other investment alternatives. The size of the dividend distribution paid by the company to investors as shareholders depends on the dividend policy of each company.

Dividend policy is a decision of company management to determine how much profit should be distributed to shareholders/investors and how much should be reinvested into retained earnings (Bansaleng et al., 2014). A company always wants to give large dividends to its shareholders, but on the other hand, the consideration that arises is whether the company should reinvest the money for its shareholders, which may be more profitable than paying it. If the company chooses to pay dividends, the question that arises is whether the company should pay it with a large or small percentage of the company's profits (Ross et al., 2017).

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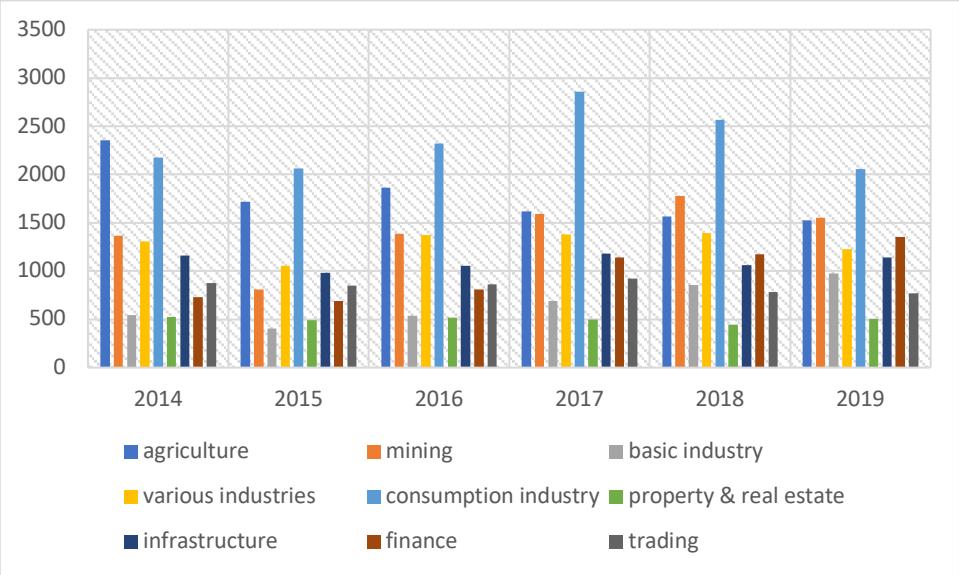
Graph 1. Development of Sectoral Index



Graph 1. explains that the development of sectoral indices based on the sectors of companies listed on the Indonesia Stock Exchange tends to fluctuate. The financial sector is no exception. The sectoral index of financial companies fluctuated from 2015 to 2019. In 2015, the financial sector index was 1,140,837. In 2016 it increased by -34,833 to become 1,175,670 and in 2017 it increased again by 178,991 and became 1,354,661. In 2018 there was a decrease of 21,485 and became 1,333,176, and in 2019, it rose again by 193,683 to 1,526,859. Seeing the phenomenon of fluctuating sectoral indexes in financial companies, of course, will have an impact on investors' interest in investing in shares in financial sector companies. In 2015 the number of financial sector companies listed on the IDX was 83. In 2016 it became 85 companies, or there was an increase of 2 companies. In 2017 there was a decline, where two companies were delisted and became 83 companies. In 2018 there was another increase, bringing the total to 85 companies. In 2019 the number of financial sector companies listed on the IDX was 105 companies, and in 2020 there was no increase or decrease because the number of companies listed was the same.

Based on signalling theory, companies pay dividends to give a signal to investors about the company's success in posting profits and prospects. Therefore, the company will only increase dividend payments when profits increase. In other words, the greater the profit earned, the greater the company's ability to pay dividends. This shows that the company will always try to improve its image by increasing the portion of profits distributed as dividends so that it is expected to increase the value of the company (Ariandani & Yadnyana, 2016). For companies, the distribution of dividends can reduce the company's cash so that the available funds to finance operations and investment activities will decrease. For shareholders, dividends are a form of control over their investment. As for creditors, the distribution of dividends is a positive signal because the company can pay interest and principal on the loan (Aristantia & Putra, 2017).

Dividend policy is a decision of the company whether the profits earned are reinvested in retained earnings or distributed directly to shareholders in the form of dividends. But in reality, many companies have experienced a decline in dividend distribution, and some have not issued dividends at all for several years. The primary indicator of a company paying dividends is the company's ability to earn profits, so profitability is considered the most important determinant of dividend policy (Utama & Gayatri, 2018). Dividends are not only determined by net income but what is more important is the company's profitability. The prior research state that the company's profitability has a positive effect on dividend policy (e.g., Nuhu et al., 2014; Yudhanto & Aisjah, 2013; Al-Kuwari, 2010; Khalid & Rehman, 2015; Rachmad & Muid, 2013; Wicaksono & Nasir, 2014; Karina & Darsono, 2014). Different results were found by Tariq (2015), who stated that profitability had a negative effect on dividend policy. However, Raissa (2012) stated that

profitability showed an insignificant positive effect on the Dividend Payout Ratio (DPR). Different studies also found that profitability had no significant effect on dividend policy (Sari & Sudjarni, 2015; Lin et al., 2018; Sumanti & Mangantar, 2015; Wedhana & Wiksuana, 2015).

Another factor that is expected to influence dividend policy is leverage. The use of debt that is too large in operational activities has an unfavorable impact on the company because the company must pay obligations which will reduce the profits obtained. The decrease in profits earned by the company will reduce the distribution of dividends to shareholders. Corporate financial leverage refers to the extent to which the company relies on debt. The more debt financing used by the company, the greater the company's financial leverage. The dividend policy of a company is certainly influenced by this level of leverage. If the company can pay off its debts, the company will tend to distribute dividends (Ross et al., 2017). Some research stated that leverage has a negative effect on dividend policy, meaning that companies with high debt levels will prioritize debt payments so that dividends paid to shareholders will decrease (e.g., Putra & Wiagustini, 2014; Nuhu et al., 2014; Sari & Sudjarni, 2015; Yudiana & Yadnyana, 2016; Yusuf, 2019; Tamimi et al., 2014). Another research result said that leverage has no effect on dividend policy, meaning that large or small leverage will not affect dividend policy (e.g., Prastika & Dahlia, 2015); Lestari, 2017; Ginting, 2018; Khan et al., 2013; Dewantara, 2019). However, different research results were found in research conducted by Afriani et al. (2015), stating that the Debt to Equity Ratio has a positive effect on the Dividend Payout Ratio.

In addition to the independent variables above, this study uses managerial ownership variables. Managerial ownership is share ownership by commissioners and directors who play an active role in decision-making to encourage managers to act carefully because they share the consequences for whatever decisions will be taken, including decisions regarding dividend policy (Bodie et al., 2014). Prior research stated that managerial ownership has no effect on dividend policy (e.g., Rais & Santoso, 2017; Roos & Manalu, 2019). In contrast, another research stated that managerial ownership has a positive effect on dividend policy, meaning that the greater the proportion of managerial ownership in a company, the greater the dividend distributed to shareholders (Sumartha, 2016; Rachmad & Muid, 2013). Nevertheless, managerial ownership is negatively correlated with dividend policy following Lestari et al. (2021).

Company size can be interpreted as the size of the company seen from the amount of equity value, company value, or the total asset value of a company (Riyanto, 2011). Company size has an effect on dividend policy, as evidenced by large companies that tend to be more developed. Prior research (e.g., Lestari, 2017; Yusuf, 2019; Kazucu, 2015; Devi & Erawati, 2014; Rachmad & Muid, 2013; Karina & Darsono, 2014) stated that firm size has a positive influence on dividend policy. When firms are larger and older, they tend to pay more dividends, while Ali et al. (2018) state that firm size has a negative effect on dividend policy. This result contrast with research conducted by Paramita (2015) which states that firm size has no effect on dividend policy. Khalid & Rehman (2015) also showed that firm size has a significant and negative effect on dividend policy.

There are still many inconsistent research results, so the authors want to analyze the factors that influence dividend policy in financial sector companies in Indonesia by using panel data regression analysis.

2. Hypothesis Development

The Effect of Profitability on Dividend Policy

Dividend policy can not be separated from profitability because profitability is a ratio that describes the ability of a company to earn profits by looking at all sources owned by the company. The profit earned by the company can be used by the company to be distributed to shareholders as dividends or held as retained earnings. The better the company's profitability ratio, the better it describes the company's ability to earn high profits so that it can increase the company's ability to pay dividends. The result of prior research state that the company's profitability has a positive

effect on dividend policy (Nuhu et al., 2014; Yudhanto & Aisjah, 2013; Al-Kuwari, 2010); Khalid & Rehman, 2015; Rachmad & Muid, 2013; Wicaksono & Nasir, 2014; Karina and Darsono, 2014). However, different results were found by Tariq (2015), who stated that profitability had a negative effect on dividend policy. The results of the study conducted by Raissa (2012) stated that profitability showed an insignificant positive effect on the Dividend Payout Ratio (DPR). Different studies also found that profitability had no significant effect on dividend policy (Sari & Sudjarni, 2015; Lin et al., 2018; Sumanti & Mangantar, 2015; Wedhana & Wiksuana, 2015)
H1 = The company's profitability has a positive effect on dividend policy.

Effect of Leverage on Dividend Policy

Leverage is a ratio that describes the relationship between the company's debt to capital and assets. This ratio can see how far the company is financed by debt or external parties with the company's ability described by capital (equity). If internal funds are not sufficient, then the company is required to conduct external funding, which usually prioritizes debt funding over shares. Leverage has a negative effect on dividend policy, meaning that companies with high debt levels will prioritize debt payments so that dividends paid to shareholders will decrease (Putra & Wiagustini, 2014; Nuhu et al., 2014; Sari & Sudjarni, 2015; Yudiana & Yadnyana, 2016; Yusuf, 2019; Tamimi et al., 2014). Therefore another result states that leverage has no effect on dividend policy, meaning that large or small leverage will not affect dividend policy (Prastika & Dahlia, 2015); Lestari, 2017; Ginting, 2018; Khan et al., 2013; Dewantara, 2019). However, different research results were found in research conducted by Afriani et al. (2015), stating that the Debt to Equity Ratio has a positive effect on the Dividend Payout Ratio.
H2 = Leverage has a negative effect on dividend policy.

Effect of Managerial Ownership on Dividend Policy

Managerial ownership is a condition where the manager takes part in the company's capital structure. In other words, the manager has a dual role as manager and shareholder in the company. Research conducted by Rais & Santoso (2017), and Roos & Manalu (2019) states that managerial ownership has no effect on dividend policy, while Sumartha (2016) and Rachmad & Muid (2013) state that managerial ownership has a positive effect on dividend policy, meaning that the greater the proportion of managerial ownership in a company, the greater the dividend distributed to shareholders. Lestari et al. (2021) conclude that managerial ownership is negatively correlated with dividend policy.
H3 = managerial ownership has a positive effect on dividend policy.

Effect of Company Size on Dividend Policy

Company size is a picture of the company that shows the success of the company, which can be reflected in the total assets owned by the company. Large companies will provide high dividend payments because large companies are certainly more stable in generating profits and are better able to utilize their resources than small companies. Small companies will pay lower dividends because the profits generated are allocated to retained earnings to increase the company's assets. Based on prior research, firm size has a positive influence on dividend policy (Lestari, 2017; Yusuf, 2019; Kazucu, 2015; Devi & Erawati, 2014; Rachmad & Muid, 2013; Karina & Darsono (2014). Paramita (2015) also states that firm size has no effect on dividend policy. Research conducted by Khalid & Rehman (2015) shows that firm size has a significant and negative effect on dividend policy.
H4 = Firm size has a positive effect on dividend policy.

3. Research Method

This research uses quantitative methods. This study aims to analyze the effect of the independent variables, namely profitability, leverage, managerial ownership, and firm size, on the dependent variable, namely dividend policy. This type of research is quantitative research.

Quantitative research is research that emphasizes testing theory through measuring research variables with numbers and analyzing secondary data according to statistical procedures (Ghozali, 2018). The secondary data comes from the official website of the Indonesia Stock Exchange (IDX), namely www.IDX.co.id. The population in this study are financial sector companies listed on the Indonesia Stock Exchange (IDX) in the 2018-2020 period. This research data will be processed using panel data. The sample used is a financial company listed on the Indonesia Stock Exchange (IDX). Determination of the sample in this study was done by the purposive sampling method. The criteria used are: a) All financial sector companies listed on the Indonesia Stock Exchange (IDX) for the period 2018-2020; b) Companies that are not delisted; c) Companies that disclose managerial ownership during 2018-2020; and c) Companies that distribute dividends during 2018-2020. Based on the results of purposive sampling, the financial companies used in this study were 33 companies.

Table 1. Operational Measurement of Research Variables

No	Variable	Measurement	Scale
1	Dividend Policy (Dewi & Muliati, 2021)	$DPR = \frac{dividend\ per\ share}{earnings\ per\ share} \times 100\%$	Ratio
2	Profitability (Ginting, 2018)	$ROA = \frac{net\ profit\ after\ tax}{total\ assets} \times 100\%$	Ratio
3	Leverage (Suwardika & Mustanda, 2018)	$DER = \frac{total\ Amount\ of\ debt}{total\ own\ capital} \times 100\%$	Ratio
4	Managerial Ownership (Roos & Manalu, 2019)	$Mnjrl = \frac{Total\ shares\ of\ directors, commissioners, managers}{number\ of\ shares\ outstanding} \times 100\%$	Ratio
5	Company Size (Dewi & Muliati, 2021)	Firm Size = Ln (Total Assets)	Ratio

The model in this study can be written as an econometric model, and then the equation is expressed in a path analysis model by transforming the equation into a natural logarithm which is ready to be estimated. The equation is then stated as follows:

$$DPR_{it} = \alpha + \beta_1 Ln\_ROA_{it} + \beta_2 Ln\_DER_{it} + \beta_3 KM_{it} + \beta_4 Ln\_FIRM_{it} + \varepsilon_{it}$$

Description:
DPR : Dividend Policy
Ln_ROA : Profitability
Ln_DER : Leverage
KM : Managerial Ownership
Ln_FRIM : Company Size

This research methodology applies three estimation methods for panel data regression, namely the common-effect, fixed-effect, and random-effect models. Then, using the Chow test, Hausmann test, and Lagrange Multiplier test to select the best estimator model. Furthermore, regression parameter testing was conducted using simultaneous and partial tests to determine the effect of predictor variables either simultaneously or partially.

4. Results and Discussions

The estimation of the regression model using panel data can be done through three approaches, namely the Common Effect Model, Fixed Effect Model, and Random Effect Model. From the three data panel models, the best one will be selected with several stages. The following are the test results of the three-panel data models.

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Table 2. Common Effect Model

Variable	Coefficient	t-Statistic	Prob.
DER?	0.344555	1.655699	0.1010
KM?	-1.755933	-0.337358	0.7366
FIRM?	-0.132124	-0.410111	0.6826
ROA?	21.61534	4.793599	0.0000
C	2.297422	0.235854	0.8140

Table 3. Fixed Effect Model

Variable	Coefficient	t-Statistic	Prob.
C	-282.7791	-8.597953	0.0000
DER?	0.216221	0.653695	0.5157
KM?	-50.01979	-3.247547	0.0019
FIRM?	8.985760	8.483261	0.0000
ROA?	81.25647	10.91296	0.0000

Table 4. Random Effect Model

Variable	Coefficient	t-Statistic	Prob.
C	-23.41136	-2.297728	0.0237
DER?	0.249415	1.215981	0.2269
KM?	7.138493	1.307681	0.1941
FIRM?	0.686915	2.054280	0.0426
ROA?	28.85472	9.138711	0.0000

To choose the best model between the common effect and the fixed effect, we do the Chow test. This test was conducted to determine whether the FEM model is better than the OLS model by looking at the statistical significance of the F test. It is assumed that each section of the cross-section tends to have unrealistic behavior and different behaviors.

Table 5. Uj Chow

Effects Test	Statistic	d.f.	Prob.
Cross-section F	6.993882	(33,64)	0.0000
Cross-section Chi-square	155.795581	33	0.0000

If the cross-section F value > 0.05 (determined at the beginning as the level of significance or alpha), then the model chosen is a common effect, but if < 0.05, then the model chosen is a fixed effect. Based on table 5, it can be explained that the cross-section value of F> 5% (6.993882> 1.96). So it can be concluded that the chosen model is a fixed effect. Next, it is continued by choosing a model between fixed effects and random effects using Hausman's test.

Table 6. Hausman test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	82.978044	4	0.0000

Hausman test statistics follow a chi-square statistical distribution with df (degree of freedom) of k (k = number of independent variables). If the Hausman statistic is > critical value, then the correct model is the fixed effect model. Otherwise, if the Hausman statistic is < critical value, the correct model is the random effect model. Based on table 6, it can be explained that the cross-section probability is less than 5% (0.0000 < 0.05). So it can be concluded that the best

model is the fixed effect, so the fixed effect model will be used to explain the estimation results of data processing in this study.

Table 7. Estimated Fixed Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-282.7791	32.88912	-8.597953	0.0000
DER?	0.216221	0.330768	0.653695	0.5157
KM?	-50.01979	15.40233	-3.247547	0.0019
FIRM?	8.985760	1.059234	8.483261	0.0000
ROA?	81.25647	7.445869	10.91296	0.0000
R-squared	0.825870	F-statistic		8.203809
Adjusted R-squared	0.725201	Prob(F-statistic)		0.000000

If the F-count probability value is less than the 5% significance level, it can be said that the estimated regression model is feasible. Meanwhile, if the probability value of the F-count is more than the 5% significance level, it can be said that the estimated regression model is not feasible. The estimation results in table 7 can be explained that the model used to estimate the research data is feasible. This can be seen from the calculated F probability value, which is less than 5% (0.000000 < 0.05). In addition, it can also be explained that all independent variables (profitability, leverage, managerial ownership, and firm size) have a significant effect on the dependent variable (dividend policy). The percentage of the independent variable affecting the dependent variable is 72.52%. While the rest is influenced by other variables is equal to 27.48%. Partially, profitability and firm size have a positive relationship to dividend policy. Firm performance is negatively related to dividend policy, and leverage has a positive but not significant relationship.

Based on the output results in table 7, the t-statistic value on the profitability variable is 10,91296 with a probability value of 0.0000, which is smaller than the error rate (alpha) of 0.05. So it can be concluded that the profitability variable has a significant effect on dividend policy in financial sector companies on the IDX. While the value of the regression coefficient of profitability is positive, which is 81.25647, meaning that if the level of profitability increases by 1%, the dividend policy will increase by 81.25647 with the assumption that other variables are considered constant. So it can be concluded that the first hypothesis in this study is accepted, the company's profitability has a positive effect on dividend policy. These results are consistent with prior research (e.g., Nuhu et al., 2014; Yudhanto and Aisjah, 2013; Al-Kuwari, 2010; Khalid & Rehman, 2015; Rachmad & Muid, 2013; Wicaksono & Nasir, 2014; Karina and Darsono, 2014) who concluded that profitability has a positive relationship with dividend policy. The results of this study are in accordance with the signal theory that companies that manage assets efficiently can generate profits, so this gives a positive signal for investors to invest their shares in companies that have the best ROA performance. The higher the ROA obtained by the company, the higher the dividend payout ratio.

The t-statistic value on the leverage variable is 0.653695 with a probability value of 0.5157, which is greater than the error rate (alpha) of 0.05. So it can be concluded that the leverage variable has no significant effect on dividend policy in financial sector companies on the IDX. While the regression coefficient value of leverage is positive, namely 0.216221, meaning that if the leverage increases by 1%, the dividend policy will increase by 0.216221 with the assumption that other variables are considered constant. So it can be concluded that rejecting the second hypothesis in this study because leverage has a positive impact on dividend policy, while the hypothesis proposed that leverage has a negative effect on dividend policy. This result is supported by research by Afriani et al. (2015), which states that the Debt to Equity Ratio has a positive effect on the Dividend Payout Ratio. High leverage indicates that the debt owed by the company is large. When the company's debt increases, this indicates that the company's assets also increase. This increase in assets is used to purchase fixed assets that the company can use to increase its efficiency

in order to increase profits. However, if the company is not able to use its assets optimally to increase profits, the company cannot distribute dividends

The t-statistic value on the managerial ownership variable is -3.247547 with a probability value of 0.0019, which is smaller than the error rate (alpha) of 0.05. It can be concluded that the managerial ownership variable has a significant effect on dividend policy in financial sector companies on the IDX. While the regression coefficient value of managerial ownership is negative, which is -50,01979, meaning that if managerial ownership increases by 1%, dividend policy will decrease by 50,01979 with the assumption that other variables are considered constant. So it can be concluded that rejecting the third hypothesis in this study because managerial ownership has a negative effect on dividend policy, while the hypothesis proposed by managerial ownership has a positive effect on dividend policy. This research is supported by Lestari et al. (2021), who conclude that managerial ownership is negatively correlated with dividend policy. The negative relationship between dividend payments and managerial shareholding is due to an increase in managerial shareholding as used as an internal governance mechanism. Furthermore, it can be explained that managerial ownership does not significantly affect dividend policy and has a negative relationship with dividend policy. This shows that with the presence of managerial ownership in the company, then the dividend policy is oriented to decline. In general, managerial ownership in a company has a very small percentage of ownership. When the small percentage of ownership is related to the dividend policy that has been produced by the company, the management will have a tendency in the end to only choose to obtain a low dividend payout ratio and even tend to lead to capital gains. The value of t-statistics on the company size variable is 8.483261 with a probability value of 0.0000, which is smaller than the error rate (alpha) of 0.05. It can be concluded that the firm size variable has a significant effect on dividend policy in financial sector companies on the IDX. While the value of the regression coefficient of firm size is positive, which is 8.985760, meaning that if the firm size increases by 1%, the dividend policy will increase by 8.985760 with the assumption that other variables are considered constant. So it can be concluded that the first hypothesis in this study is accepted, that firm size has a positive effect on dividend policy. These results are consistent with the prior research (e.g., Lestari, 2017; Yusuf, 2019; Kazucu, 2015; Devi & Erawati, 2014; Rachmad & Muid, 2013; Karina & Darsono, 2014), which states that firm size has a positive influence on dividend policy. Firm size is an important factor for a company or a measuring tool in making decisions about paying dividends to shareholders because the size of the company is seen from the total assets owned by a company. Large companies tend to pay higher and more stable dividends because large companies are considered able to generate higher profits stable too. Meanwhile, small companies will provide lower dividend payments. This is because the profits generated will be allocated to retained earnings to increase the assets of the company. This means that the larger the size of a manufacturing company, the greater the dividends that will be distributed. Companies with a larger size have the potential to provide large dividends as well. This can be said because the company has assets that can be used to generate profits. The number of assets can increase profits in manufacturing companies, part of the profits generated will be allocated to pay dividends. So that large companies can provide dividends to shareholders in manufacturing companies.

5. Conclusions

Based on the results and discussion, it can be concluded that simultaneously all independent variables (leverage, firm size, profitability, and managerial ownership) affect dividend policy (the dependent variable). The percentage of influence of all variables used in this study on dividend policy is 72.52%. While the rest is influenced by other variables is equal to 27.48%. Partially, profitability and firm size have a positive relationship to dividend policy. Firm performance is negatively related to dividend policy, and leverage has a positive but not significant relationship. This research is expected to provide additional information regarding the factors that can be

considered in viewing dividend policy. In increasing the company's dividend policy to shareholders, it cannot be separated from internal factors, namely profitability and leverage. Besides that, there are also external factors, namely managerial ownership and company size, that affect the good or bad of the resulting dividend policy. Therefore, managers must improve their performance to increase their reputation among investors.

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