Determinants of Dividend Policy: A Study of Public Listed Companies in Indonesia

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Abstract

This research aims to analyze the influence of dividend policy determinants on dividend payment either partially or simultaneously in all industry sectors except the financing industry listed on Indonesia Stock Exchange in 2016. The factors examined in this research include profitability, leverage, growth, agency cost and firm size. Data were obtained from the relevant databases and financial statements of the sampled companies. This research examines a total of 149 companies. The results revealed that profitability and growth significantly influence dividend policy. Meanwhile, leverage, agency cost, and firm size have no significant effect on dividend policy. It is suggested that the company should always pay attention to the fundamental aspects of the company, and it may determine their dividend policies to keep attracting an investor. It is best for an investor to consider a company with high profitability, low leverage, low or high growth rates, high free cash flow, and a big firm.

Keywords
Companies, Determinants, Dividend, Policy

1. Introduction
Capital market is an activity that related to the public offering and securities trading, public company that related to the issued securities, and institution that related to the securities (Rusdin, 2008). Capital market provides various alternatives for investors to receive profit. One way is by investing. Investing is an important activity to develop the company operational (Anoraga & Pakarti, 2008). Investing is an important activity to develop the company's business operations. Investing is one of the capital market alternatives for the investor to receive profits. It can also be referred to as a capital investment. Capital investment refers to funds invested in the company to further its business objective. The capital can be derived from two sources, which are internal and external financing or sources. The internal source comes from funds generated by the company itself, i.e., retained earnings (Sakir & Miksalmina, 2006). Unlike internal sources that tend to be limited, external sources come from outside parties willing to cooperate with the company, such as banks, creditors, suppliers, and the capital market. A company usually issue a share or stock. Therefore, investors will purchase the share and invest their funds in the company. Hence, the company will receive the needed capital. Investors can expect the return in the form of dividends and capital gain. O'Sullivan and Sheffrin (2003) stated that a dividend is a payment made by a corporation to its shareholders, usually as a distribution of profits. Another definition of dividend was also stated by Weygandt, Kimmel and Kieso (2012), a dividend is corporation's distribution of cash or shares to its shareholder based on a pro rata. Dividend can be issued as cash, property, scrip (a promissory note to pay cash), or shares. Investors prefer dividends from stock rather than potential capital gains because of the inherent uncertainty of the latter. Even though the company can distribute dividends in other forms, most shareholders prefer and desire dividends to be distributed in cash because it can reduce the uncertainty of investments. Investors usually will consider many things before making an investment decision, as well as the company, will consider many things in determining the company's

dividend policy. The potential investors usually will observe the company's financial condition and the company's ability to generate profit every year. Investing is an important activity to develop the company's business operations. Investing is one of the capital market alternatives for the investor to receive profits. It can also be referred to as a capital investment. Capital investment refers to funds invested in the company to further its business objective. The capital can be derived from two sources, which are internal and external financing or sources. The internal source comes from funds generated by the company itself, i.e., retained earnings. Unlike internal sources that tend to be limited, external sources come from outside parties willing to cooperate with the company, such as banks, creditors, suppliers, and the capital market. A company usually issue a share or stock. Therefore, investors will purchase the share and invest their funds in the company. Hence, the company will receive the needed capital. Investors can expect the return in the form of dividends and capital gain. They prefer dividends from stock rather than potential capital gains because of the inherent uncertainty of the latter. Even though the company can distribute dividends in other forms, most shareholders prefer and desire dividends to be distributed in cash because it can reduce the uncertainty of investments. Investors usually will consider many things before making an investment decision, as well as the company, will consider many things in determining the company's dividend policy. The potential investors usually will observe the company's financial condition and the company's ability to generate profit every year.

1.1 Problem Identification

The problem identification to be discussed in this research is the relationship of each indicator that may affect dividend payment. Based on the background of the problems, the issues to be discussed in this study are:

1. Is there any influence of profitability ratios represented by Return on Assets (ROA) on Dividend Payment for companies listed on the Indonesia Stock Exchange in 2016?
2. Is there any influence of the leverage ratio represented by the Debt-to-Equity Ratio (DER) on Dividend Payments for companies listed on the Indonesia Stock Exchange in 2016?
3. Is there any influence of the growth ratio represented by the Market to Book Ratio (MTBR) on Dividend Payments for companies listed on the Indonesia Stock Exchange in 2016?
4. Is there any influence of Agency Cost (AC) on Dividend Payment for companies listed on the Indonesia Stock Exchange in 2016?
5. Is there any influence of Firm Size (FS TA) on Dividend Payment for companies listed on the Indonesia Stock Exchange in 2016?

1.2 Research Objectives

This research aims to determine whether profitability, leverage, growth, agency cost, and firm size simultaneously or partially influence dividend payment.

2. Research Methodology

2.1 Research Object

The research object is the financial statement and performance summary of all listed companies on the Indonesia Stock Exchange for 2016.

2.2 Types and Sources of Data

The data in this research were obtained through the database of the Indonesia Stock Exchange in the form of financial statements and a performance summary of the company.

2.3 Population and Samples

In determining the number of samples, this research used the Purposive Sampling Method. The purposive Sampling Method is a non-probability sampling that is selected based on the characteristics of a population and the study's objectives. There are four characteristics in determining the number of samples, i.e., all public listed companies except financial industries on the Indonesia Stock Exchange for the year 2016, companies that distribute cash dividends in 2016, companies that were not delisted in 2016 and companies that have published its audited financial statements.

2.4 Method of Data Collection
The data for this research will be taken from the Indonesia Stock Exchange database, which is a reliable source of the company's financial reports and stock information.

2.4 Method of Data Analysis
Since this research is cross-sectional data, a type of data collected by observing many subjects at the same point, the method of data analysis in this research is normality test, multicollinearity test, heteroscedasticity test, coefficient of determination, and multiple regression analysis.

2.5 Method of Data Presentation
The result of this research will be presented in the form of a table and graph to make it easier for the reader to understand the result of this research and reflect the information to support the achievement of the goals and the discussion process of this research.

3. Results Analysis and Discussion

3.1 Hypothesis Testing
Coefficient of Determination Test Result (R^2 Test)
 The result of the coefficient of determination test is shown in the following Table 1:

Table-I: Model summary

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,511[a]	,261	,236	,5556534
a. Predictors: (Constant), FS TA, MTBR, DER, AC, ROA				
b. Dependent Variable: DPR				

According to Table-I, the value of $R^2 = 0.261$. This value explains the independent variables' ability to explain the dependent variable. This shows the influence of the independent variables, i.e., Profitability (ROA), Leverage (DER), Growth (MTBR), Agency Cost (AC) and Firm Size (FS TA), on the dependent variable, i.e., Dividend Payout Ratio (DPR) is 26.10%. The remaining 73.90% is influenced by other factors that were not included in the regression model.

3.2 F-Test Result
The hypothesis proposed in this test is (Table II):
H0: Independent variables do not affect the dependent variable
Ha: At least one independent variable affects the dependent variable

Table-II: F-Test result

	ANOVA[a]					
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	15,627	5	3,125	10,123	,000[b]
	Residual	44,151	143	,309		
	Total	59,778	148			
a. Dependent Variable: DPR						
b. Predictors: (Constant), FS TA, MTBR, DER, AC, ROA						

The Ftable value can be seen from Numerator Degrees of Freedom (df1) and Denominator Degrees of Freedom (df2). Df1 is obtained by the equation df1 = k-1, where k is the total of independent and dependent variables. Df2 is obtained by the formula df2 = n-k, where n is the total number of samples. In this research, the Ftable with $\alpha = 0.05$, df1 = 5, and df2 = 143 is 2.277490. Based on Table-II, the Fcount value of 10.123 is higher than the Ftable of 2.277490. Meanwhile, the comparison result on the level of significance value is $0.00 < 0.05$. Therefore, it can be concluded that all independent variables simultaneously affect the dependent variable.

3.3 T-Test Result
In this research, the hypothesis of the statistical t-test is as follows Table III:
H_{A1}: Profitability significantly affects Dividend Payment
H_{A2}: Leverage has a significant negative effect on Dividend Payment
H_{A3}: Growth significantly affects Dividend Payment
H_{A4}: Agency Cost has a significant positive effect on Dividend Payment
H_{A5}: Size has a significant positive effect on Dividend Payment

Table-III: T-Test result

		Coefficients^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,424	,396		1,072	,286
	ROA	-1,986	,747	-,240	-2,658	,009
	DER	-,069	,038	-,145	-1,813	,072
	MTBR	,058	,008	,630	6,847	,000
	AC	-,176	,215	-,066	-,815	,416
	FS TA	,004	,023	,012	,167	,868
a. Dependent Variable: DPR						

The T table value can be seen from its degree of freedom (df) and the area in the upper tail. Df is obtained by the equation df = n-k, where n is the total number of samples and k is the total of independent and dependent variables. In this research, the Ttable with $\alpha = 0.05$ (one-tailed) and df = 143 is 1.655579 and the Ttable with $\alpha = 0.025$ (two-tailed) and df = 143 is 1.976692.

The result of the T-Test shows that:
1. Profitability Variable (ROA)
The comparison results between Tcount and Ttable shows that Tcount (2.658) >Ttable (1.976692) and the level of significance < 0.05 (0.009 < 0.05), then the decision to be taken is to accept HA1. In other words, the profitability variable (ROA) has a significant negative effect on dividend payments.
2. Leverage Variable (DER)
The level of significance > 0.05 (0.072 > 0.05), then the decision to be taken is reject HA2. In other words, the leverage variable (DER) does not significantly affect dividend payment.
3. Growth Variable (MTBR)
The comparison results between Tcount and Ttable shows that Tcount (6.847) >Ttable (1.976692) and the level of significance < 0.05 (0.000 < 0.05), then the decision to be taken is to accept HA3. In other words, the growth variable (MTBR) has a significant positive effect on dividend payment.
4. Agency Cost Variable (AC)
The comparison results between Tcount and Ttable shows that Tcount (0.815) <Ttable (1.655579) and the level of significance > 0.05 (0.416 > 0.05), then the decision to be taken is to reject HA4. In other words, the agency cost (AC) does not significantly affect dividend payment.
5. Firm Size Variable (FS TA)

The comparison results between Tcount and Ttable shows that Tcount (0.167) <Ttable (1.655579) and the level of significance > 0.05 (0.868 > 0.05), then the decision to be taken is to reject HA5. In other words, the firm size (FS TA) does not significantly affect dividend payment.

3.4 Multiple Linear Regression Model Analysis

Based on Table-III, the equation for the multiple linear regression model in this research is:

$$DPR_{2016} = 0.424 - 1.986\ ROA_{2016} - 0.069\ DER_{2016} + 0.058\ MTBR_{2016} - 0.176\ AC_{2016}$$
$$+ 0.004\ FS\ TA_{2016} + \varepsilon_{2016} + v_{2016}$$

The following will explain the equations of multiple linear regression models above:

1. Constant $(\alpha) = 0.424$

The constant value (α) of 0.424 indicates the amount of dependent variable, which is the dividend payout ratio, is not influenced by independent variables, such as Return on Assets (ROA), Debt to Equity Ratio (DER), Market to Book Ratio (MTBR), Agency Cost (AC), and Firm Size (FS TA).

2. Return on Assets Regression Coefficient $(\beta1)$ X1 = -1.986

If the return on assets ratio increases by one unit, assuming the other independent variable remains, the dividend payment will decrease by 1.986. The negative sign on the regression coefficient value indicates that the independent variables with the dependent variable run in two directions or a two-way relationship, where each increase in the independent variables will be followed by a decrease in the dependent variable and vice versa.

3. Debt to Equity Ratio Regression Coefficient $(\beta2)$ X2 = -0.069

If the debt-to-equity ratio increases by one unit, assuming the other independent variable remains, the dividend payment will decrease by 0.069. The negative sign on the regression coefficient value indicates that the independent variables with the dependent variable run in two directions or a two-way relationship, where each increase in the independent variables will be followed by a decrease in the dependent variable and vice versa.

4. Market to Book Ratio Regression Coefficient $(\beta3)$ X3 = 0.058

If the market to book ratio increases by one unit, assuming the other independent variable remains, the dividend payment will increase by 0.058. The positive sign on the regression coefficient value indicates that the independent variables with the dependent variable run in one direction or one-way relationship, where any increase or decrease in the independent variables will be followed by an increase or decrease in the dependent variable.

5. Agency Cost Regression Coefficient $(\beta4)$ X4 = -0.176

If the agency cost value increases by one unit, assuming the other independent variable remains, the dividend payment will decrease by 0.176. The negative sign on the regression coefficient value indicates that the independent variables with the dependent variable run in two directions or a two-way relationship, where each increase in the independent variables will be followed by a decrease in the dependent variable and vice versa.

6. Firm Size Total Assets Regression Coefficient $(\beta5)$ X5 = 0.004

If the firm size value increases by one unit, assuming the other independent variable remains, the dividend payment will increase by 0.004. The positive sign on the regression coefficient value indicates that the independent variables with the dependent variable run in one direction or one-way relationship, where any increase or decrease in the independent variables will be followed by an increase or decrease in the dependent variable.

7. Error Term (ε)

The error term shows the confounding variable outside Return on Assets, Debt to Equity Ratio, Asset Growth, Agency Cost, and Firm Size. As explained in the previous chapter, the error term in the regression model confirms that many other independent variables can influence the dependent variable.

8. Cross-Sectional Error Term (vit)

Vit is the cross-sectional error term (for the random-effects model). As explained in the previous chapter, the existence of the cross-sectional error term is almost the same as the previous error term, confirming that many other independent variables can influence the dependent variable. Still, the cross-sectional error term is for the random-effects model. The random-effects model assumes that the analyzed data is drawn from a hierarchy of different populations whose differences relate to that hierarchy. This model is used to overcome the fixed model data that uses a dummy variable.

6. Conclusions and Recommendation

This research shows that profitability has a negative effect on dividend payment, which means the higher the profitability rate of the company, the lower the company's intention to pay higher dividends. A profitable company

prefers to use its earnings to start a new project, acquire new assets, repurchase some of its shares, or even buy out another company rather than pay dividends to shareholders. A profitable company may have considered the risk and potential expense when issuing new stock. Therefore, they would like to avoid the risk of needing to raise money this way, and they choose to keep all of their profits.

On the other hand, growth has a positive effect on dividend payments. This result proves the Dividend Signaling Theory, which states that a high growth rate company will pay a higher dividend because they want to attract more investors to invest in the company.

Meanwhile, the remaining indicators, i.e., Leverage, Agency Cost and Firm Size, do not affect dividend payment. It means that these indicators will not contribute to changes in corporate dividend policy.

Below are the recommendations given to further researcher:
1. Further research can add other variables that can affect dividend payment to increase the coefficient of determination. In further research, the proxy of agency cost may use insider ownership, institutional ownership, dispersions of ownership, and collateralizable asset because it is possible to illustrate the agency cost.
2. Further research may use all listed companies, including the financing industry.
3. Further research may use the data in the previous year or the year after to increase the number of samples, so there is a possibility of getting more accurate results.

Advice given to investors is:
1. For investors and potential investors who want to invest in companies listed on the Indonesia Stock Exchange, it is best to consider a company with high profitability, low leverage, low growth rates, high free cash flow and big firm. Profitability, liquidity, company growth, agency cost, and firm size can be used as the basis of investment decision-making. These variables can be a benchmark of the company's ability to generate a dividend payout ratio on the investment made in the company.

As for the company, the recommendations are:
1. The company should always pay attention to the fundamental aspects of the company, especially for the matter that concerns the dividend payout ratio, because the dividend payout ratio aspect attracts investors to invest their funds in the company as well as a gauge of the effectiveness and efficiency of all the existing resources used in the company's operational processes that will have implications for the increase in the dividend payout ratio of the company.
2. The company may determine its dividend policies to keep attracting investors and potential investors based on its situation.

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