

The Effect of Profitability, Free Cash Flow and Investment Opportunity Set on Dividend Policy on Manufacturing Companies Listed on the Indonesia Stock Exchange (IDX)

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Abstract

This study aims to obtain empirical evidence about the effect of the Effect of Profitability, Free Cash Flow and Investment Opportunity Set on Dividend Policy in Manufacturing Companies. This research is a quantitative study using the annual financial statements of companies listed on the Indonesia Stock Exchange (IDX). The sampling technique uses purposive sampling. The samples used were 13 Manufacturing companies listed on the Indonesia Stock Exchange (BEI) for the 2016-2018 period, so that 39 company data were obtained. Data analysis techniques used multiple linear regression. The results of this study indicate that profitability has a negative and not significant effect on dividend policy, free cash flow has a positive and not significant effect on dividend policy and investment opportunity set has a positive and significant effect on dividend policy.

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1. Introduction

The company will grow and develop, then in time it will make a profit or profit. This profit consists of retained earnings and distributed earnings. At a later stage, retained earnings are one of the most important sources of funds for financing the company's growth. Of all profits obtained by the company, part of it is distributed to shareholders in the form of dividends. Regarding the determination of the amount of dividends to be distributed, it is the dividend policy of the company's leadership.

The dividend policy is a decision whether the profits earned by the company will be distributed to shareholders as dividends or will be retained in the form of retained earnings to finance future investments. The dividend payment policy has a very important impact on investors and companies that will pay dividends (Haryetti and Ekayanti, 2012).

The amount of dividends that will be distributed by the company depends on the policy of each company, so management considerations are needed. This is due to the difference in the interests of the parties in the company. For investors, they tend to expect larger dividend payments, while management tends to hold cash to pay debts or increase investments.

In this study, manufacturing companies are used, because this sector is one of the sectors that has the ability to generate large profits, and this has a very large influence on the distribution of dividends to shareholders. Manufacturing companies also have very complex characteristics in processing raw materials into finished goods using capital-intensive technology so that they require excellent governance (neat) to maintain their continuity (going concern).

2. Method

2.1. Variable Dependency

In this study, the dependent variable is the dividend policy. The dividend policy is a decision whether the profits earned by the company will be distributed to shareholders as dividends or will be withheld in the form of retained earnings to finance future investments. Dividend policy is measured as a tool to measure dividend payout ratio. Dividend payout ratio (DPR) is a percentage of profit paid to shareholders in the form of cash. Mathematically, the dividend payout ratio (DPR) is formulated as follows (Aristantia dan Putra, 2015):

$$DPR = \frac{\text{Dividend Per Lembar Saham}}{\text{Laba bersih Per Lembar Saham}} \times 100\%$$

2.2. Independent Variables

In this study, three independent variables were used, namely: Profitability, Free Cash Flow and Investment Opportunity Set.

2.3. Profitability

In this study, profitability is measured based on return on asset (ROA). Return on assets is a ratio that shows the return on the number of assets used in the company. ROA is a comparison of net profit after tax with the amount of company assets. ROA can be calculated using the formula (Pradana dan Sanjaya, 2017):

$$ROA = \frac{\text{Laba Bersih Setelah Pajak}}{\text{Total Aset}} \times 100\%$$

2.4. Free Cash Flow

According to Rosdini (2009), *free cash flow* is excess cash needed to fund all projects that have a positive net present value. In this study, free cash flow is measured through the calculation of cash from cash flow operations which is subtracted by capital expenditure. Free cash flow can be calculated using the formula (Pradana dan Sanjaya, 2017):

$$FCF = \text{Arus Kas Operasi} - \text{Pembelanjaan Modal}$$

2.5. Investment Opportunity Set

Investment opportunity set (IOS) is a combination of real assets (assets in place) and future investment options. Future investment options are not only shown by the existence of projects supported by research and development activities, but also by the ability of companies that are able to exploit profits with a larger amount compared to other equivalent companies in an industry group, IOS is proxied as a market to book value of equity (MVE/BVE). This ratio explains that the market assesses that the return on a company's investment in the future will be greater than the expected return on its equity. Investment opportunity set (IOS) in this study was measured using the formula (Pradana dan Sanjaya, 2017) :

$$IOS = \frac{\text{Lembar Saham Beredar} \times \text{Harga Saham Penutupan}}{\text{Total Ekuitas}}$$

2.6. Population and Sample

The population in this study is manufacturing companies that have been and are still listed on the Indonesian stock exchange in 2016-2018. The sample in this study uses purposive sampling, which is a sample determination technique with certain considerations. The criteria for companies that are sampled in this study are:

Table 1. Sample Criteria

No	Sample Characteristics	Ket
1.	Manufacturing Companies Listed on the Indonesia Stock Exchange in 2016-2018.	162
2.	Manufacturing Companies that did not distribute dividends in 2016-2018.	(149)
3.	Manufacturing Companies that did not publish financial statements in 2016-2018.	0
Number of Research Samples		13
Total research observation data for 3 years		39

2.7. Data Analysis Techniques

Data analysis technique is a method used to process research data by using a data simplification process in a form that is easy to read and interpret. In this study, multiple linear regression analysis was used which can explain the relationship between several variables, consisting of dependent variables and more than one independent variable with the help of the IBM SPSS version 23 program.

3. Results and Discussion

3.1. Hasil Pengujian

3.1.1. Statistics Descriptive

Table 2. Descriptive Statistical Test Results

	N	Minimum	Maximum	Mean	Std. Deviation
ROA	39	0,033	0,527	0.151	0.133
FCF	39	-5,287	1,431	1,954	3,908
IOS	39	0,391	30,168	5.208	7.598
DPR	39	0,002	0,979	0.516	0.291
Valid N (listwise)	39				

3.1.2. Dividend Payout Ratio (DPR) (Y)

The results of statistical testing in the table above show that the minimum value of the DPR is 0.002 and the maximum value is 0.979. This shows that the amount of Dividend Payout Ratio (DPR) in the sample ranges from 0.002 to 0.979 with an average (mean) of 0.51626 at the standard deviation of 0.291560.

3.1.3. Profitabilitas (ROA) (x1)

The results of statistical testing in the table above show that the minimum Profitability (ROA) value is 0.033 and the maximum value is 0.527. This shows that the amount of profitability (ROA) in the sample ranges from 0.033 to 0.527 with a mean of 0.15106 at the standard deviation, namely 0.13389.

3.1.4. Free Cash Flow (FCF) (x2)

The results of statistical testing in the table above show that the minimum Free Cash Flow (FCF) value is -5.287 and the maximum value is 1.431. This shows that the amount of Free Cash Flow (FCF) in the sample ranges from -5,287 to 1,431 with a mean of 1,954 at the standard deviation of 3,908.

3.1.5. Investment Opportunity Set (IOS) (x3)

The results of the statistical test in the table above show that the minimum value of IOS is 0.391 and the maximum value is 30.168. This shows that the size of the Investment Opportunity Set (IOS) in the sample ranges from 0.391 to 30.168 with an average (mean) of 5.208 at the standard deviation of 7.598.

Table 3. Normality Test Results

One-Sample Kolmogorov-Smirnov Test			
		Sebelum outlier	Setelah Outlier dan Transformasi Data
		N	Unstandardized Residual
		39	36
Normal Parameters ^{a,b}	Mean	0,0000000	0,0000000
	Std. Deviation	0,20178250	0,20178250
Most Extreme Differences	Absolute	0,081	0,081
	Positive	0,081	0,081
	Negative	-0,079	-0,079
Test Statistic		0,080	0,081
Asymp. Sig. (2-tailed)		0,200c,d	0,200c,d

Based on the results of the normality test, it shows that the disruptive or residual variable has been distributed normally, which is indicated by the Asymp value. Sig. (2-tailed) of 0.200 > significance level 0.05 in observations of 39 before the outlier and 36 after the outlier. Thus, the data is eligible for further research.

Table 4. Determination Coefficient Test Results

Model	R	R Square	Adjusted R Square
1	0,536a	0,287	0,221

From the output results of SPSS 23 model summary, the magnitude of R square is 0.287. This means that 29% of the variation in dividend policy can be explained by variations of three independent variables of profitability, free cash flow and investment opportunity set, while the remaining 71% is explained by causes outside the model or other variables not tested in this study.

Table 5. Multiple Linear Regression Analysis Results

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	0,533	0,107	
	ROA	-0,452	0,495	0,288
	FCF	3,427	0,000	0,145
	IOS	0,135	0,060	0,721

Based on the table above, information is obtained from the Understandardized Coefficients and Standartdized Coefficients Beta columns. In this study, the data that must be considered is

Unstandardized Coefficients Beta. From the Unstandardized Coefficients Beta column, the regression equation model is obtained as follows:

$$Y = 0,533 - 0,452 + 3,427 + 0,135 + e$$

The regression equation above can be explained as follows:

- 1) From the above results, it can be seen that the direction of the positive constant is 0.533 which can be interpreted if all independent variables (ROA, FCF, IOS) are zero, then (Y) Dividend Policy is 0.533;
- 2) From the above results, it can be seen that the regression coefficient for the X1 variable, namely Profitability (ROA) in a negative direction of -0.452. This shows that every increase in profitability (ROA) of 1%, the value of the dividend policy (DPR) is -0.452%, assuming that the other variables do not change (constant);
- 3) From the above results, it can be seen that the regression coefficient for the X2 variable, namely free cash flow in a positive direction of 3.427. This shows that every increase in free cash flow (FCF) of 0.01, then the dividend policy value (DPR) is 3.427 assuming that the other variables do not change (constant); and
- 4) From the above results, it can be seen that the regression coefficient for the X3 variable, namely the Investment Opportunity set (IOS) in a positive direction of 0.135. This shows that every time the investment opportunity set is added by 0.01, the dividend policy value (DPR) is 0.135 assuming that the other variables do not change (constant).

Table 6. Hypothesis Test Results (t)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0,533	0,107		5.001	0,000
	ROA	-0,452	0,495	0,288	-0,913	0,368
	FCF	3,427	0,000	0,145	0,946	0,351
	IOS	0,135	0,060	0,721	2.272	0,030

Based on the table above, it can be seen that the influence of each variable ROA, FCF, and IOS on the Dividend Policy (DPR) can be seen from the direction of the sign and the level of significance (probability).

- 1) The Profitability Variable (ROA) has a negative direction of -0.913 with a significance value of 0.365 > 0.05. Therefore, the profitability variable (ROA) has a negative and insignificant effect on the Dividend Policy (DPR), meaning that H1 is rejected.
- 2) The Free Cash Flow (FCF) variable has a positive direction of 0.946 with a significance value of 0.351 > 0.05. Therefore, the variable free cash flow (FCF) has a positive and insignificant effect on the dividend policy (DPR), meaning that H2 is rejected.
- 3) The Investment Opportunity Set (IOS) variable has a positive direction of 2.272 with a significance value of 0.030 < 0.05. Therefore, the variable investment opportunity set (IOS) has a positive and significant effect on the dividend policy (DPR), meaning that H3 is accepted.

3.2. Discussion

In this study, a basic assumption test, namely the normality test, the classical assumption test, namely the multicollinearity test, the heteroscedasticity test, and the autocorrelation test, were used to meet the requirements that became the basis for the use of the multiple regression analysis model.

Testing the multiple regression analysis obtained the results of the Profitability variable (ROA) showing a negative direction, the Free Cash Flow (FCF) variable showing a positive direction, and the Investment Opportunity Set (IOS) variable showing a positive direction. The test results can be analyzed as follows:

3.2.1. The Effect of Profitability (ROA) on Dividend Policy (DPR)

Based on the results of the study, it is stated that the Profitability variable (ROA) has a negative effect of -0.452 and insignificant 0.368 on the dividend policy (DPR), the results of this study show that the first hypothesis is rejected. The results of this study show that the size of the company's profitability (ROA) will not affect the size of the dividend distribution and the results of this study are not in line with the pecking order theory which states that companies with a high level of profitability actually have a low debt level, because companies with high profitability have abundant sources of internal funds.

Judging from the standard deviation of ROA of 0.133 which is not too large and positive that the data studied has good profitability, this explains in this study that the size of the company's Profitability (ROA) will reduce the dividend distribution, because the ROA is not all distributed as dividends, so that part of the profit can be set aside to be reinvested so that the company's survival can run.

The results of this study are in line with the research conducted by (W. H. Saputro, Apryana, and Kalbuana, 2015) and (Fahriyani, 2016) which shows that profitability does not have a significant effect on dividend policy. However, it is not in line with the research conducted by (Haryetti and Ekayanti, 2012) and (Dewi, 2016) which states that profitability has a positive and significant effect on the Dividend Policy (DPR).

3.2.2. The Effect of Free Cash Flow (FCF) on Dividend Policy (DPR)

Based on the results of the study stating that the Free Cash Flow (FCF) variable had a positive effect of 3.427 and insignificant 0.351 on the dividend policy variable (DPR), the results of this study show that the second hypothesis was rejected. The results of this study are in line with the pecking order theory which states that companies tend to prioritize internal funding to pay dividends if the need for funds is less, external funds are used as an addition. The results of this study found that the size of free cash flow did not affect the high and low dividend distribution.

If the company wants to maximize shareholder wealth with free cash flow conditions that are not possible, the company can use external funds. This explains that in this study, free cash flow is not only to be distributed in the form of dividend payments but can be used to pay debts, buy shares back or save for future company growth opportunities.

The results of this study are in line with the research conducted by (Arihaha, 2009) and (Wijanarko, 2012) which shows that free cash flow does not have a significant effect on dividend policy. However, it is not in line with the research conducted by (Lucyanda and Lilyana, 2012) and (Adi Prasetio and Suryono, 2016) which shows that free cash flow has a positive and significant effect on Dividend Policy.

3.2.3. The Effect of Investment Opportunity Set (IOS) on Dividend Policy (DPR)

Based on the results of the study stating that the Investment Opportunity Set (IOS) variable has a positive effect of 0.135 and means 0.030 on the Dividend Policy (DPR), the results of this study show that the third hypothesis is accepted. The results of this study are in line with the pecking order theory which states that the company adjusts the dividend payment target to investment opportunities, if external funds are needed, the company will choose the source of funds from debt because it is seen as safer from the issuance of new equity as the last option as a source to meet investment needs.

The results of this study are in line with the research conducted by (W. H. Saputro et al., 2015) and (Adi Prasetio and Suryono, 2016). However, it is not in line with the research conducted by (Wijanarko, 2012) and (Dewi, 2016) which stated that the Investment Opportunity Set does not have a significant effect on the Dividend Policy.

4. Conclusion

Based on the data analysis and discussion that has been carried out, the following conclusions can be drawn:

- 1) Profitability has a negative and insignificant effect on the Dividend Policy. This shows that the higher the profitability produced, the greater the internal funds needed and not all of them to be distributed in the form of dividends;
- 2) Free cash flow has a positive and insignificant effect on the Dividend Policy. This shows that high free cash flow is not only used for dividend distribution but also used for internal company funding; and
- 3) Investment Opportunity Set has a positive and significant effect on Dividend Policy. This shows that the company will distribute dividends even more if the growth of the company's investment is higher.

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