

The Influence of Profitability and Free Cash Flow on Dividend Policy with Asset Growth as Moderating Variable

Ni Putu Santhi Sugiyanthi¹, A. A. G. P. Widanaputra², Ni Gusti Putu Wirawati³,
Ni Ketut Rasmini⁴

^{1,2,3,4} Udayana University

^{1,2,3,4} Faculty of Economics and Business, Bali, Indonesia

Abstract: This study aims to determine the effect of profitability and free cash flow on dividend policy with asset growth as moderating variable. The population in this research focused on manufacturing companies listed in Indonesia Stock Exchange (IDX) on the period 2015 – 2019. Based on purposive sampling method and outlier data expenditure, this research obtained 26 companies as the sample with total 130 observations. The analysis technique used in this research is Moderated Regression Analysis (MRA). The results show that asset growth does not moderate the effect of profitability on dividend policy, while asset growth weakens the effect of free cash flow on dividend policy in manufacturing companies listed in IDX.

Keywords: Profitability, Free cash flow, Asset growth, Dividend policy.

I. INTRODUCTION

Capital market is a place for investors to invest their fund and a place for companies to raise their capital. Investors invest their fund in a company to maximize returns without ignoring the risks (Arilaha, 2009). Shareholders receive their returns in dividend income and capital gain. According to the bird in the hand theory developed by Myron Gordon (1956) and John Lintner (1962), most investors prefer dividend distribution over capital gains because it is considered more certain. The size and small amount of dividends distributed depends on the dividend policy of each company. This study investigates the influence of profitability and free cash flow on dividend policy. Study about the effect of profitability and free cash flow on dividend policy has been carried out by several prior researchers. Devi *et al.* (2014), Simanjuntak and Kiswanto (2015), Kajola *et al.* (2015), Tahir and Mushtaq (2016), Utama and Gayatri (2018), Hung *et al.* (2018), Meidyna and Mertha (2020) and Franc-Dąbrowska *et al.* (2020) discovered that profitability has a positive effect on dividend policy, however Maldajian & El Khoury (2014), Saeed *et al.* (2014), Trang (2016), Tamrin *et al.* (2017), Lestari *et al.* (2019), and Nurfatma and Purwohandoko (2020) reported different result, they discovered that profitability has negative effect on dividend policy. Sari and Budiasih (2016), Sri *et al.* (2016), Trisna and Gayatri (2019), Pradnyavita and Suryanawa (2020), Sejati *et al.* (2020), and Franc-Dąbrowska *et al.* (2020) who examined the effect of free cash flow on dividend policy reported that free cash flow has positive effect on dividend policy. Conversely, other studies discovered negative association between free cash flow and dividend policy (Saeed *et al.*, 2014; Jabbouri, 2016; Hasana dkk., 2017; Harun and Jeandry, 2018). The present study adds asset growth as moderating variable due to the inconsistent findings of prior studies.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Based on the signalling theory, companies that earn big profits will pay higher dividends to convey their good financial performance (Maldajian and El Khoury, 2014). The distribution of dividends is a signal to all outsiders (investors) regarding the achievement of company's management in achieving company's goal (Sari and Budiasih, 2016). Based on the explanation, profitability has positive effect on dividend policy. This means that the higher the profit company gets,

the higher the dividend to be distributed. However, the existence of asset growth, which is defined as the growth of company's assets, becomes a consideration for managers when deciding to pay dividends. The existence of high growth of company's assets certainly require high funds in the future. This makes the company holds its profit which will be distributed as dividends. Based on the description, the following hypotheses stated in alternative form were developed for determining factors influencing dividend policy:

H₁: The higher the profitability, the higher dividend will be distributed by the company, especially when the company has low asset growth.

Based on the signalling theory, the company's decision to distribute cash as dividends will provide good news to investors. Dividend distribution predicts that the company has good future prospects. Based on the residual theory of dividend, cash are distributed to shareholders when the company has excess funds over profit which is used to finance the planned project. This means the higher free cash flow the company has, the higher dividends that will be distributed. According to Brigham (2011) in Sari and Suryantini (2019), company's growth also influences dividend policy. Company that has good growth rate will certainly allocate their funds to invest which therefore the cash of the company will decrease. Consequently, the dividends distributed to shareholders is decreased. Hence, the amount of dividends distributed will increase when the free cash flow is high, supported by low asset growth. Based on the description, the following hypotheses stated in alternative form were developed for determining factors influencing dividend policy:

H₂: The higher the free cash flow, the higher dividend will be distributed by the company, especially when the company has low asset growth.

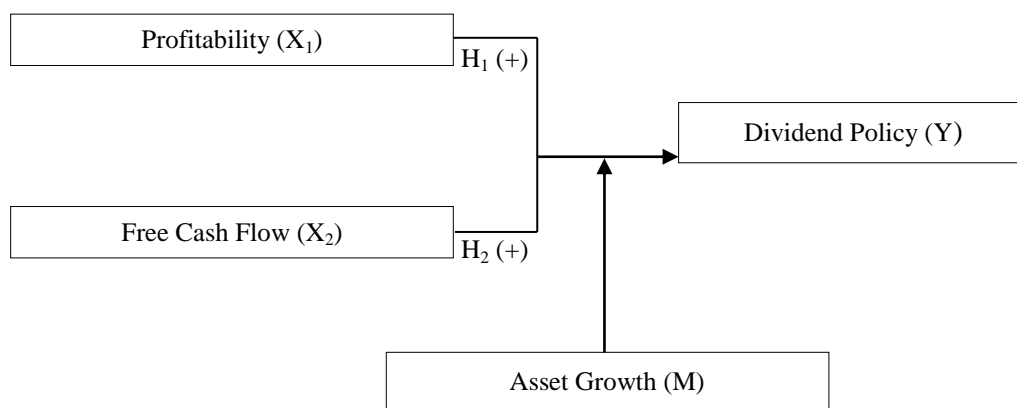


Figure 1: Research Design

III. METHODS

The approach used in this research is an associative quantitative approach. Sugiyono (2017: 23) states that quantitative research methods are used to examine a specific population or sample, collect data, use research instruments, analyze quantitative or statistical data, with the aim of describing and testing predetermined hypotheses. Sugiyono (2017:20) states that associative research aims to describe and analyse the hypothesis between two or more variables. This study focuses solely on manufacturing sector companies listed on the Indonesia Stock Exchange. The main justification for selecting manufacturing company is that it consists of various industrial subsectors. The study period covers the 2015 to 2019 period. The objects in this study are dividend policy (Y), profitability (X₁), free cash flow (X₂), and asset growth (M).

According to Sugiyono (2017: 66), research variables are anything in the form that the researcher determines to study in order to obtain information about it and get a conclusion. The independent variables for this study include profitability (X₁) and free cash flow (X₂), while dividend policy (Y) is the dependent variable. This present study also adds a moderating variable in the form of asset growth (M).

Each company will consider whether they will distribute dividends to shareholders or hold it as retained earnings. The decision to distribute and hold it referred as dividend policy (Jahfer and Mulafara, 2016). This present study measures dividend policy using dividend payout ratio (DPR) proxy.

$$\text{Dividend Payout Ratio (DPR)} = \frac{\text{Dividend per Share}}{\text{Earning per Share}} \dots\dots\dots(1)$$

Harmono (2014: 109) states that profitability explains the company's fundamental performance in terms of the efficiency and effectiveness of the company's operations in obtaining profit. In this present study, profitability is measured by Return on Equity (ROE).

$$\text{ROE} = \frac{\text{Net Profit}}{\text{Equity}} \dots\dots\dots (2)$$

White *et al.* (2003) in Setiana and Sibagariang (2013) describe free cash flow as discretionary cash flow available to companies. It means free cash flow can be used for discretionary uses such as acquisitions and capital expenditures with growth orientation, debt payments, and payments to shareholders in the form of dividends.

$$\text{FCF} = \frac{\text{Net Operating Cash Flow} + \text{Net Investment Cash Flow}}{\text{Total Assets}} \dots\dots\dots (3)$$

Company's asset growth can be seen from the growth of assets owned by a company from year to year (Sari and Suryantini, 2019).

$$\text{Asset Growth (AG)} = \frac{\text{Total Assets}_t - \text{Total Assets}_{t-1}}{\text{Total Assets}_{t-1}} \dots\dots\dots (4)$$

The population in this present study manufacturing sector companies listed on the Indonesia Stock Exchange in the period 2015 to 2019. The sampling technique used in this study was the purposive sampling method. The criteria used are manufacturing companies that pay dividends during the research period.

The type of data used in this study is quantitative data. The quantitative data used in this study are the numbers in the audited financial statements of manufacturing sector companies listed on the Indonesia Stock Exchange for the period 2015 to 2019. This study used secondary data sources. The data in this study included the annual financial statements of manufacturing sector companies listed on the Indonesia Stock Exchange for the period 2015 to 2019 which were obtained by accessing the official website of the Indonesia Stock Exchange, namely www.idx.co.id. The data collection method used in this study is the non-participant observation method. In this non-participant observation method, the researcher only acts as an independent observer.

The data in this present study were analysed using Moderated Regression Analysis (MRA). Before testing the regression analysis, it is necessary to do descriptive statistical tests and classical assumption tests therefore the regression results show a valid relationship. The classical assumption testing includes normality test, autocorrelation test, multicollinearity test, and heteroscedasticity test. Hypothesis testing in regression is also carried out through three stages of testing, namely the adjusted coefficient of determination (R^2), model feasibility testing (F test), and hypothesis testing (t test).

Based on the independent, dependent, and moderating variables, the model of the study is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_1 X_3 + \beta_5 X_2 X_3 + e \dots\dots\dots (5)$$

Where,

- Y = Dividend policy
- α = Constant
- $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Multiple regression coefficient value
- X_1 = Profitability
- X_2 = Free cash flow
- X_3 = Asset growth
- $X_1 X_3$ = Interaction between profitability and asset growth
- $X_2 X_3$ = Interaction between free cash flow and asset growth
- e = Standar error

IV. RESULT AND DISCUSSION

Based on the sample selection process, 37 companies in the manufacturing sector were obtained. The total sample obtained from the five years of research was 185 observations. In this study, the researcher discarded outliers in order that the data were spread normally. This caused the observations reduced to 130. This study is using Moderated Regression Analysis (MRA) data analysis technique. Before conducting a Moderated Regression Analysis (MRA) test, the researcher conducted a descriptive statistical test and classic assumption test first. Tabel 1 shows descriptive statistical analysis result.

Table 1: Descriptive Statistical Analysis Result

Variable	N	Minimum	Maximum	Mean	Std. Deviation
DPR	130	-0,1261	1,0000	0,388801	0,2267768
PROF	130	-0,0466	1,3997	0,164662	0,2356094
FCF	130	-0,1671	0,4971	0,043660	0,0969070
AG	130	-0,1052	0,9327	0,105505	0,1497800
Valid N (listwise)	130				

Source: Research Data, 2020

The normality test in this study used the Kolmogorov Smirnov test. The test using One Sample Kolmogorov-Smirnov test obtained a significance value of 0.062, greater than 5%, which means that the data in this study were normally distributed. The results of the normality test using Kolmogorov Smirnov test in this study can be seen in Table 2.

Table 2: Normality Test Result

	<i>Unstandardized Residual</i>
N	130
<i>Asymp. Sig. (2-tailed)</i>	0,062

Source: Research Data, 2020

To determine the presence of autocorrelation in the regression model, this study conducted a Durbin-Watson test. The results of the autocorrelation test in this study can be seen in Table 3 where the DW value is 2.170 with n as many as 130 observations and k = 5. The criteria is $DU < DW < 4-DU$, it shows that the regression model in this study is free from autocorrelation problems.

Table 3: Autocorrelation Test Result

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.638 ^a	.408	.384	17.803752	2.170

Source: Research Data, 2020

The multicollinearity test in this study was carried out by looking at the tolerance value and the variance inflation factor (VIF) value. Based on the test results in Table 4, it shows concluded that the model used in this study is free from multicollinearity problems because based on the test results it is found that each variable in this study has a tolerance value > 0.10 and a VIF value < 10.

Table 4: Multicollinearity Test Result

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics		
	B	Std. Error	Beta			Tolerance	VIF	
1	(Constant)	34.209	2.335	14.651	.000			
	PROF	.045	.140	.047	.319	.225	4.444	
	FCF	1.430	.301	.611	4.754	.000	.289	3.457
	Growth	-.401	.178	-.265	-2.249	.026	.345	2.902
	PxG	.014	.013	.160	1.077	.284	.217	4.606
	FxG	-.037	.015	-.253	-2.422	.017	.438	2.285

a. Dependent Variable: DPR

Source: Research Data, 2020

The heteroscedasticity test in this study used the Spearman Rank Test. Table 5 shows the results of the heteroscedasticity test with the Spearman Rank Test, where the significance value is greater than 0.05 or 5%, it shows that model used in this study is free from heteroscedasticity problems.

Table 5: Heteroscedasticity Test result

		Unstandardized Residual	PROF	FCF	Growth	PxG	FxG	
Spearman's rho	Unstandardized Residual	Correlation Coefficient	1.000	.073	.029	.033	.057	.074
		Sig. (2-tailed)	.	.406	.746	.711	.520	.403
		N	130	130	130	130	130	130
		Sig. (2-tailed)	.403	.000	.000	.675	.000	.
		N	130	130	130	130	130	130

****.** Correlation is significant at the 0.01 level (2-tailed).

Source: Research Data, 2020

The result of Moderated Regression Analysis (MRA) Test Result for this study shown in Table 6.

Table 6: Summary of Moderated Regression Analysis (MRA) Test Result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	34,209	2,335		14,651	0,000
	PROF	0,045	0,140	0,047	0,319	0,750
	FCF	1,430	0,301	0,611	4,754	0,000
	Growth	-0,401	0,178	-0,265	-2,249	0,026
	PxG	0,014	0,013	0,160	1,077	0,284
	FxG	-0,037	0,015	-0,253	-2,422	0,017
Adjusted R ²						0,384
F						0,000

Source: Research Data, 2020

Based on the Moderated Regression Analysis (MRA) test result as shown in Table 6, the model of the study is as follows:

$$DPR = 34,209 + 0,045PROF + 1,430FCF - 0,401Growth + 0,014(PxG) - 0,037(FxG) + \epsilon \dots\dots\dots (6)$$

Adjusted coefficient of determination (Adjusted R²) is measured to determine the percentage of influence of the independent variable on dependent variable. Based on Table 6, it can be seen that the adjusted R² value is 0.384, which means that 38.4% of the variation in dividend policy is explained by profitability, free cash flow, asset growth, the interaction between profitability and asset growth, and the interaction between free cash flow and asset growth. The remaining 61.6% is explained by other variables.

Feasibility test (F Test) is used to determine whether the Moderated Regression Analysis (MRA) regression model in this study is appropriate or not. Table 6 shows that the significance of F Test is 0,000 smaller than 0,05. It shows that the following Moderated Regression Analysis (MRA) model is feasible to use.

The Effect of Profitability on Dividend Policy with Asset Growth as Moderating Variable

Table 6 shows that the significance value of t test for the interaction between profitability and asset growth is 1,077 and the significance level is 0,294. The value of significance level is higher than 0,05. It shows that the hypothesis stating asset growth weakens the impact of profitability on dividend policy is rejected. The results of this study is in contrast with research conducted by Sarjana (2019), which found that companies with high profitability supported by high asset growth will also pay high dividends. In this study, it was found that asset growth does not affect the relationship between profitability and dividend policy possibly because the company may still use external funding sources if the company's profitability which is used as retained earnings is not able to fulfill the company's funding or investment needs when the company has high asset growth. In addition, referring to Gup and Agrawal (1996) in determining the company's life cycle using sales growth, 69% or 18 of the 26 companies used as samples in this study are in the mature stage. Company that has been operating for a long time or has been in the maturity stage may only focus on generating profit and

distributing it to shareholders in the form of dividends. This is because the company in maturity stage already has a lot of reserves to be reinvested without having to reduce the proportion of dividends to shareholders

The Effect of Free Cash Flow on Dividend Policy with Asset Growth as Moderating Variable

Table 6 shows that the significance value of t test for the interaction between free cash flow and asset growth is -2,422 and the significance level is 0,017. The value of significance level is smaller than 0,05. It shows that the hypothesis stating asset growth weakens the impact of profitability on dividend policy is accepted. The results of this study indicate that if the company has high free cash flow supported with low growth rate, the free cash flow will be distributed to shareholders. However the company has high free cash flow and a high growth rate, the company tends to temporarily hold free cash and use it for future periods. Companies with a good growth rate will certainly allocate their free cash flow to invest so that the free cash flow owned by the company will decrease. As a result, the number of dividends distributed to shareholders has also decreased. On the other hand, companies that experience slow growth tend to pay higher dividends to overcome the problem of overinvestment.

V. CONCLUSION

Based on the result of the analysis and discussion that has been carried out, it can be concluded that: first, asset growth is not a moderating variable on the interaction between profitability and dividend policy. This means that asset growth is not able to influence both weaken or strengthen the relationship between profitability and dividend policy. Second, asset growth is a moderating variable on the relationship between free cash flow and dividend policy. Where in this case, asset growth weakens the free cash flow relationship in the dividend policy, which means that the higher the free cash flow of a company, which is supported by lower asset growth, the higher the dividends distributed by the company. It aims to avoid overinvestment when the company has low asset growth.

Based on the conclusions above, the suggestions related to this research is the next researcher may examine other variables as moderating variable that might affect the interaction between two variables. Researchers also may use different measurements on the dividend policy variables, profitability, free cash flow, or asset growth. Investors need to pay more attention to the factors that affect the company's dividend policy, including the interaction between profitability and asset growth, in order to minimize the risks involved in investing in a company. For companies, it needs to pay attention to the factors that influence dividend policy so that investors are interested in investing in related companies.

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