

## FREE CASH FLOW IN MODERATED CAPITAL STRUCTURE, PROFITABILITY, INSTITUTIONAL OWNERSHIP ON DIVIDEND POLICY



<https://journal.unpas.ac.id/index.php/jrak/index>

**Eduard Ary Binsar Naibaho** ✉<sup>1</sup>, **Zulfa Naurah**<sup>2</sup>

<sup>1,2</sup>Accounting Study Program, Faculty of Economics and Business, Universitas Pelita Harapan, Indonesia

Corresponding Author: [eduard.naibaho@uph.edu](mailto:eduard.naibaho@uph.edu) ✉<sup>1</sup>

Jl. Garnisum Dalam No. 8, Karet Semanggi, Jakarta, Indonesia

### Article Info

#### History of Article

Received: 30/11/2022

Revised: 22/8/2023

Published: 15/10/2023

Jurnal Riset Akuntansi Kontemporer

Volume 15, No. 2, October 2023,

Page 198-208

ISSN 2088-5091 (Print)

ISSN 2597-6826 (Online)

 <https://doi.org/10.23969/jrak.v15i2.6585>

**Keywords:** free cash flow; capital structure; profitability; institutional ownership; dividend policy

### Abstract

Dividend policy is influenced by factors that are valid in studies. A factor that has run dividends uncontrollably is free cash flow. By using capital structure, profitability and institutional ownership as independent variables, we examined the effect of capital structure, profitability and institutional ownership on dividend policy with free cash flow as the moderating variable. The test was fulfilled with descriptive, verificative methods and a data panel regression model. Simultaneously, capital structure, profitability and institutional ownership had no positive impact on dividend policy even though free cash flows were collected, it drove capital structure, profitability and institutional ownership unnoticeable to dividend policy. This study is crucial to expanding the perspective on free cash flow and for future research.

## INTRODUCTION

The dividend is a signal from a firm to predict future cash flows (Bhattacharya, 1979; John & Williams, 1985) Along with dividend distribution, firms can create a long-life relationship with investor's long-term plans (Bhattacharya, 1979). Management becomes aware of a repeated cycle between dividends and the firm's value (John & Williams, 1985). Directors of a firm will possibly announce dividends but in fact, dividends are often used as an indicator to develop a firm's future funding (Widodo et al., 2021).

In Indonesia, many firms use dividends to draw investors' trustworthiness. For example, PT Unilever Indonesia Tbk distributed dividends for three years from retained earnings. In another industry, PT Blue Bird Tbk distributed dividends from retained earnings because they hadn't decided on their activity. In the financial industry, Panin Bank or PT Bank Pan Indonesia Tbk has finally distributed dividends after 17 years. The problem in assigning a dividend is related to a policy named dividend policy.

In determining the number of dividends, shareholders are engaged with the number of shares they own. Shareholders wanted a seamless predictable distribution because the consistency of dividends could boost self-confidence in business (Widodo et al., 2021). Easy money came with high risk, which was why shareholders needed to learn about a company vigorously to check and make a strategy. The sustainability of a firm is outlined in its financial statement and ratios. A company with a poor capital structure could lead to bankruptcy for both parties, the firm and shareholders.

Capital structure is a ratio measuring owned capital with funding capital from other parties to create profit (Hidayat, 2017). Upon the agency theory approach, capital structure is intended for investors to not expect high for a firm to be liquid when encountering failure. Statistically, capital structure has no impact on assigning dividends because firms would distribute to draw an optimum prospect to shareholders (Zainuddin & Mananohas, 2020).

The major factor for a firm to distribute dividends is profitability (Zainuddin & Mananohas, 2020). A profitability industry presents excellent proof to shareholders as the industry shows the opportunity to increase dividend cash when profit growth is rising (Indrati & Amelia, 2022).

After the announcement of the dividend distribution blast, management would calculate the number based on the share of ownership. Shareholders in this period were divided into managerial ownership, individual ownership, institutional ownership, foreign ownership and family ownership (Tran & Le, 2019). They said that every owner has their capability and authority in a firm. The ownership that has a strong appearance and authority is institutional (Jensen & Meckling, 1976). They stated that institutional owners had a good sense of monitoring the firm's manager in determinate policies especially when it came to dividends. Their theory sustained with (Rahayu & Rusliati, 2019) study that institutional ownership had a positive impact on determining dividend policy.

A cash flow that is quite difficult to find but holds an important role is free. FCF is an excess of cash flow after all activities that have positive value are deducted from the cost of capital (Jensen & Meckling, 1976). Determination of free cash flow is assumed to be reliable because it includes a statement of cash flows that illustrates the firm's value accurately. Large owned of free cash flow can be used to assign large amounts of dividend or purchasing shares and wasted cash are invested into a low-value project or useless project.

Capital structure, profitability, institutional holders and dividend policy have a variety of studies and results. On the contrary, a study with free cash flow as the moderating variable is subtle. We found a study (Guermazi & Bouri, 2017) that used free cash flow as a moderating variable and the resulting free cash flow moderated debt and managerial entrenchment. Fu et al. (2022) explained that previous returns and today's free cash flows could lead to forecasting stock returns. However, the research concluded that they might be under-recognised to notice unexplainable risk factors for their findings due to undone risk factors.

A dividend is believed to come through an equilibrium cycle. An equilibrium means a round of continuing reciprocal that creates a cycle. The theory then evolved as a signalling theory as an owner of large information by management to push management to choose and determine future financial funding activity optimally. Bhattacharya (1979) used dividends as a firm's signal to supply equity. He discovered dividends gave a signal about what to expect from a firm's cash flow to shareholders. As a result of a balanced signal, firms with an advantage over internal parties would pay high dividends and as a reward firms would get a high price for their shares (John & Williams, 1985).

The pecking order theory (Myers, 1984) described it as an option for firms to trust a source of capital between internal and external trust. He stated that internal trust is likely an option to choose due to lower cost than external trust. External funding has asymmetrical information. Asymmetric information happens when a party has a wider range of information than the other party thus affecting the future transaction. In this theory, a change in net cash would appear as a change in external funding and explained more reasons why profitable firms had short debt. Shortened debt interpreted that firms had a decent amount of internal trust.

Agency theory is defined as an employ between personal or more people to fulfil things for them including the authority to make a decision (Jensen & Meckling, 1976). Managers are an agent for shareholders. Managers as an internal party of the company had greater information than shareholders. As a result, shareholders needed to provide incentives for managers to stay on their side. Complications between an agent and principal arose when issued dissonance information. This would cause an agency problem and agency cost. The decrease in exchange of incentive value in the "welfare process" by the principal is a cost of agency relationship or residual loss (Jensen & Meckling, 1976).

Dividend policy is an important action to consider a specific number of dividends to shareholders and allocation to firms (Zainuddin & Mananohas, 2020). Information about financial performance is needed to learn firm fundamentals to disseminate dividends. Different knowledge between shareholders and management can cause asymmetric information and boost conflict. Simultaneously, liquidity, profitability and leverage can impress dividend policy because firms are considered decent firms to distribute dividends (Angelia & Toni, 2020). Sindhu (2014) argued that dividends are affiliated with free cash flow.

Sustainable firms would prioritize internal trust, followed by debt and funding from shareholders for the last (Myers, 1984). The total amount of equity determined a rise in debt along with high equity that would give a poor growth in debt which meant firms are in a strong position. Moreover, debt did not affect debt policy because debt only affected firms' management and owners would use profit as dividends rather than to pay the debt (Widodo et al., 2021; Zainuddin & Mananohas, 2020). Yet, (Hidayat, 2017) contended that the effect of capital structure on dividend policy came from large capital structure followed by large interest expense and greater interest expense. On that condition, firms would prioritize return on interest over dividends.

Firms with constant earnings would distribute better dividends than inconstant firms (Indrati & Amelia, 2022) and profit came as an assurance of the change of dividend rate and to assign dividends. Profit is seen through ratios to show the firm's earnings capability. Gross profit, net profit, operating margin and pretax margin are parts of profit margin. Return on asset illustrates earnings capability through an asset by dividing the total number of earnings by the total number of assets. Return on equity portrayed earnings capability through an invested equity by dividing the total number of earnings by the total number of equity.

It is valid that profitability had a positive impact on dividend policy (Indrati & Amelia, 2022; Widodo et al., 2021; Zainuddin & Mananohas, 2020). However, the study done by (Hidayat, 2017) achieved that profitability harmed dividends because minor profits could lead firms to distribute greater dividends to save the firm's value.

Jacob & Jijo Lukose (2018) found in their research that corporate ownership was more attractive to dividend-paying firms than non-dividend-paying firms. Trafalgar & Africa (2019) also stated institutional owners could learn about a firm's activities by adopting information to develop excellent performance of firms. Better knowledge of institutional ownership to make an outstanding performance is highly considered to stimulate dividend payment of the year (Tran & Le, 2019). The statement is aligned with (Widodo et al., 2021) that institutional ownership is a factor from the external party that participated in investing and affecting a firm's dividend policy. In addition, institutional ownership seized the chance and ability to keep an eye on and study a company better than any ownership to calibrate asymmetrical information and agency costs (Setia et al., 2022). Despite this, (Nguyen & Li, 2020) argued that institutional ownership had no impact on dividend policy because of the instability of dividend yield.

Free cash flow triggered shareholders and management relationships in the dividend distribution. Free cash flow is crucial for firms because it can show firms' performances for a period. Free cash flow highlights financial health for firms to decide on new strategies for the future period. Fu et al. (2022) research pointed out that cash flows are recognizable from accruals in forecasting future returns. For investors, free cash flow shows consistency in producing cash so that investors feel secure to invest.

More significant free cash flow showed the sustentation of a company since they have had hard cash to grow, pay debt and share a dividend (Meiliyawati & Rusliati, 2020). Even when the reward was announced before the FCFs settled, the news of the FCF could turn into a dividends raise. By all means, FCFs had a hefty role when established-debt and cash control. Debt control reminds managers to shrink activities with full cash flow and no forecast to rise. Guermazi & Bouri's (2017) study explained that free cash flow moderated the negative impact on debt and managerial entrenchment. However, (Chen et al., 2016) literature examined that over-investing firms were sensitive to free cash flow so they might choose over-investing again and state ownership pushed the over-investment.

This study was built to acknowledge the effect caused by capital structure, profitability and institutional ownership towards dividend policy and what results came when the FCF was confirmed. We initiated that this research was important to develop more perspective about free cash flow since the FCF was difficult to trace in studies as a moderating variable. In the current study, data was limited to cross-sectional variations and only used managerial barricades and debt or price propulsion. For this study, we added variables such as profitability, institutional ownership and dividend policy and used a larger sample from larger countries than in the previous research.

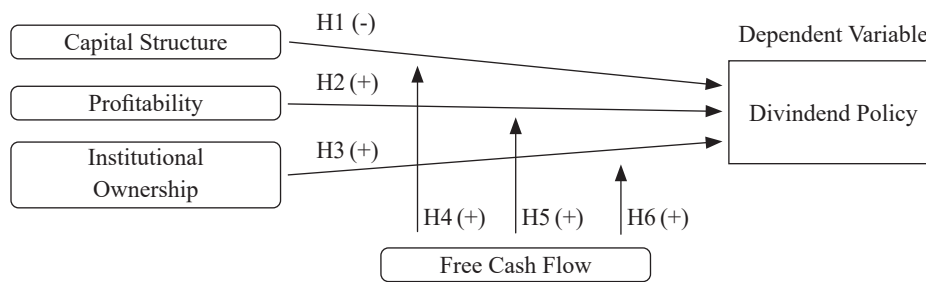


Figure 1. Theoretical Framework

**METHODS**

This research used the transportation and logistics industry in ASEAN countries listed on S&P Capital IQ from 2017-2021. During those years, ASEAN countries in the transportation industry remained constant to increase from 2017 to 2019 and shook into a hard fall in 2020 and 2021. On the contrary, logistics specifically traded in goods from 2020 to 2021 rose to 60-70% in million USD (The ASEAN Secretariat, 2022).

By using purposive sampling, the sample required: (1) A Go-Public firm; (2) Firms had published financial statements every year; (3) Firms had institutional ownership and complete data to support this research. Data was collected by using secondary data through a website of S&P Capital IQ and a search by ASEAN countries in the category of transportation and logistics. Collected data was investigated by using STATA version 16. The empirical model in this study used using data panel regression method to increase the closest estimated results and minimize lost variables. Using data panel regression also meant time-series data with many possibilities of variables.

$$DPR_{it} = \beta_0 + \beta_1 DER_{it} + \beta_2 ROE_{it} + \beta_3 IO_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 GROWTH_{it} + \beta_7 CR_{it} + \epsilon_{it} \dots\dots\dots(1)$$

$$DPR_{it} = \beta_0 + \beta_1 DER_{it} + \beta_2 ROE_{it} + \beta_3 IO_{it} + \beta_4 DER_{it} * FCF_{it} + \beta_5 ROE_{it} * FCF_{it} + \beta_6 IO_{it} * FCF_{it} + \beta_7 SIZE_{it} + \beta_8 AGE_{it} + \beta_9 GROWTH_{it} + \beta_{10} CR_{it} + \epsilon_{it} \dots\dots\dots(2)$$

To measure dividend policy accruably, we used the dividend payout ratio. The dividend payout ratio (DPR) portrayed the available amount to be a return for shareholders or to be retained earnings. DPR presented a firm that had more dividend share than net profit. As (Meiliyawati & Rusliati, 2020) said the dividend payout ratio came from dividend per share divided by earnings per share.

Capital structure is resolved by debt distribution to equity to picture the acquisition of company capital. Higher debt made lower equity. As (Zainuddin & Mananohas, 2020) stated in the current study, capital structure is pictured with a debt-to-equity ratio because a ratio number above 1 meant a firm had larger debt than its equity. Larger debt followed by interest expense and high risk such as bankruptcy. The debt-to-equity ratio is developed by total debt divided by total equity.

Profitability is defined as the capability to gain a return. Profit is used as a criterion to know a firm's skill in response to its activity. When a firm had an income, it made excellent progress in sustaining the firm and making good use of its assets. In (Hidayat, 2017) return on equity ratio (ROE) could describe the business return of all owned capital. ROE is tested by looking at the total net income divided by the total equity.

In this study, institutional ownership is based on a list of ownership in the financial statement. Institutional ownership consisted of foreign ownership and local ownership. This study has counted owners as one rather than grouping them into types to give the closest answer. The study done by (Setia et al., 2022) stated that institutional ownership was perceptible by dividing share ownership by the total outstanding shares.

It's a bit vague to determine free cash flow accurately due to the differences in the formula. In this study, the formula used for free cash flow is to calculate EBIT multiplied by 1 minus tax rate. The amount after that diminished with noncash expenses, capital expenditures and changes in working capital (Sindhu, 2014). Also, it is assumed a negative amount of free cash flow 0 meant a firm did not have a free cash flow and a positive amount of 1 meant no matter how small or large the amount of free cash flow is, it can push a relationship between the independent variable and with dependent variable.

## RESULTS

With total of firms qualified is 66 firms with 5 years of research period resulting in 330 data observations from the Philippines, Indonesia, Malaysia, Singapore, Thailand and Vietnam. The authors could continue the test into the first step of the data panel regression method by using descriptive analysis. Based on the collected data, the result of the descriptive analysis is detectable in the table below.

Table 1. Statistic Descriptive Analysis

Variables	Obs	Min	Max	Mean	Std. Dev.
DPR	330	0	0.23929	0.001738	0.01358
DER	330	-0.8161	0.73822	0.009586	0.07183
ROE	330	-0.1383	0.34972	0.001618	0.22916
IO	330	0	1	0.379462	0.29395
SIZE	330	8.56112	19.577	13.92964	2.24149
AGE	330	0	4.5326	3.09703	0.79395
GROWTH	330	-0.00764	2.36961	0.007891	0.13046
CR	330	0.00054	2.8737	0.020964	0.16018

Descriptive analysis objectives are to sum up data with minimum value, maximum value, mean and standard deviation. Table 1 portrayed the dividend payout ratio (DPR) as a dependent variable that had a minimum value (min) of 0 and a maximum value (max) of 0.239 with a total mean and standard deviation of 0.0017 and 0.013. DER, an independent variable had a minimum value of -0.816 and a maximum value of 0.738 with total mean and standard deviation of 0.009 and 0.071. ROE, an independent variable had a minimum value of -0.138 and a maximum value of 0.349 with total mean and standard deviation of 0.001 and 0.229. IO, an independent variable has a minimum value of 0 and a maximum value of 1 with total mean and standard deviation of 0.379 and 0.293. Then, the authors had our descriptive results on how those variables are unified with correlation analysis.

Table 2. Correlation Analysis

	DPR	DER	ROE	IO	SIZE	AGE	GROWTH	CR
DPR	1.0000							
DER	-0.0046	1.0000						
ROE	-0.0061	0.1854	1.0000					
IO	-0.0192	-0.0270	-0.0455	1.0000				
SIZE	0.1432	0.2087	0.0906	-0.1121	1.0000			
AGE	-0.0506	0.0536	0.1084	0.0025	-0.0401	1.0000		
GROWTH	-0.0066	0.0000	-0.0033	-0.0628	0.0269	0.0286	1.0000	
CR	-0.0091	-0.0110	0.0059	-0.0838	-0.1593	0.0144	-0.0025	1.0000

Table 3. Chow Test

Model	prob > F	chi square
1	0.0357	1.42
2	0.0443	1.39

The correlation analysis objectives are to defend relationships between variables. If correlation analysis had a value  $\geq 0.8$ , it indicated multicollinearity problems. If the correlation number is  $< 0.5$  it showed a weak correlation. Table 2 portrayed the relationships between DPR and DER, DPR and ROE, DPR and IO, DER and IO, and ROE and IO had negative and weak relationships. However, DER and ROE had a positive and strong relationship. Relationship between variables did not indicate multicollinearity problems which was good because there would not be any dramatic change between independent or dependent variables if we had to increase or decrease variables in our models.

Chow's test objectives were to find a better estimation model between the Common Effect Model and the Fixed Effect Model. If the probability was  $> 0,05$  it used the Common Effect. If the probability was  $< 0,05$  it used Fixed Effect. Table 3 portrayed model 1 and model 2 as having probability values below 0.05 (0.03 and 0.04) which meant both models used the Fixed Effect Model.

Table 4. Hausman Test

Model	prob > chi2	chi square
1	0.4068	8.28
2	0.6386	8.82

Hausman test objectives were to find a better estimation model between the Fixed Effect Model and the Random Effect Model. If the probability was  $> 0,05$  it used Random Effect. If the probability was  $< 0,05$  it used Fixed Effect. Table 4 portrayed Model 1 and Model 2 as having probability values more than 0.05 (0.4 and 0.63) which meant both models used the Random Effect Model.

Table 5. Lagrange Multiplier Test

Model	prob > chibar2	chi square
1	1	7.91
2	0.2781	8.3

Lagrange Multiplier test objectives were to find a perfect estimation model between the Common Effect Model and the Random Effect Model. If the probability was  $> 0,05$  it used a Common Effect. If the probability was  $< 0,05$  it used Random Effect. Table 5 portrayed that Model 1 and Model 2 had a probability value of more than a significant value of 0.05 which meant the perfect models for both were the Common Effect Model.

Table 6. Normality Test

Variables	Prob	Skewness	Kurtosis
DPR	0.0000	0.0000	0.0000
DER	0.0000	0.0000	0.0000
ROE	0.0000	0.0000	0.0000
IO	0.0000	0.0022	0.0000
DER*FCF	0.0000	0.0000	0.0000
ROE*FCF	0.0000	0.0000	0.0000
IO*FCF	0.0000	0.0000	0.0000
SIZE	0.0095	0.0141	0.0417
AGE	0.0000	0.0000	0.0000
GROWTH	0.0000	0.0000	0.0000
CR	0.0000	0.0000	0.0000

Normality test objectives were to measure the ordinarieness distribution of data. If the probability was  $> 0.05$  it drew significance and data disseminated normally. If probability  $< 0.05$  it drew insignificant and abnormal spreading. Table 6 portrayed the irregular distribution of variables. Based on the result, odd data need treatment with Winsorize since data observation was  $> 200$ .

Table 7. Normality Test After Treatment

Variables	Prob	Skewness	Kurtosis
DPR	0.0000	0.0000	0.0000
DER	0.0000	0.0000	0.0000
ROE	0.0000	0.0000	0.0000
IO	0.0000	0.0025	0.0010
DER*FCF	0.0000	0.0000	0.0000
ROE*FCF	0.0000	0.0007	0.0000
IO*FCF	0.0000	0.0000	0.0005
SIZE	0.0050	0.0133	0.0174
AGE	0.0000	0.0000	0.0000
GROWTH	0.0000	0.0000	0.0000
CR	0.0000	0.0000	0.0000

After being treated, the data distribution still portrayed abnormality. As for the reason, the value of data back to the initial data.

Table 8. Multicollinearity Test

Variables	VIF Model 1	VIF Model 2
DER	1.08	4.96
ROE	1.05	2.27
IO	1.03	2.31
DER*FCF	-	4.66
ROE*FCF	-	1.99
IO*FCF	-	2.3
SIZE	1.1	1.1
AGE	1.02	1.03
GROWTH	1.01	1.01
CR	1.04	1.04
Mean VIF	1.05	2.27

The multicollinearity test objectives were to measure the correlation between independent variables. If the VIF value  $> 10$  indicated multicollinearity. If the VIF value  $< 5$  there were no multicollinearity problems. Table 8 portrayed each variable as having a VIF value below  $< 5$  both in Model 1 and Model 2 meaning no multicollinearity problems.

Table 9. Heteroskedasticity Test

Model	Variables	Coefficient	Robust Std. Error	T-value	$P >  t $
1	DER	-0.0061	0.00466	-1.3	0.193
	ROE	-0.0057	0.00575	-0.99	0.325
	IO	0.00013	0.00121	-0.1	0.918
	SIZE	0.00092	0.0006	1.54	0.125
	AGE	-0.0007	0.00065	-1.1	0.273
	GROWTH	-0.001	0.00062	-1.62	0.107
	CR	0.00128	0.00075	1.71	0.087
2	DER	-0.0039	0.00286	-1.35	0.177
	ROE	-0.0096	0.0082	-1.17	0.243
	IO	0.00186	0.00147	1.27	0.205
	DER*FCF	-0.0044	0.00805	-0.54	0.587
	ROE*FCF	-0.0101	0.02926	-0.35	0.729
	IO*FCF	-0.0025	0.00259	-0.97	0.332
	SIZE	0.00093	0.00061	1.52	0.129
	AGE	-0.0007	0.00061	-1.08	0.279
GROWTH	-0.0011	0.00067	-1.57	0.118	
CR	0.00908	0.00074	1.72	0.086	

The heteroskedasticity test objectives were to measure variances of variables that were constant. This test used the White test. If the probability was  $> 0.05$  it drew no heteroskedasticity problems. If the probability  $< 0.05$  there was heteroskedasticity. Table 9 portrayed that in Model 1 each variable had a probability  $> 0.05$  that led variables into no heteroskedasticity. In Model 2, each variable had a probability  $> 0.05$  mean variables implying no heteroskedasticity.

Table 10. Autocorrelation Test

Model	d-statistic
1	2.022713
2	2.021757

The autocorrelation test objectives were to measure obstacles in the time series between the present period and the past period. This test used the Durbin-Watson test. If the d-value showed a value between 2 to 4 effectively no autocorrelation. If the d-value showed value  $0 < d\text{-value} < dL$ , then it was positive autocorrelation. If d-value showed value  $dL < d\text{-value} < dU$  afterwards the test had no conclusion. Table 10 portrayed in Model 1, the d-value is  $2 < 2.022713 < 4$  meaning no autocorrelation. In Model 2, the d-value was  $2 < 2.021757 < 4$  meaning no autocorrelation.

Table 11. Hypothesis Test for Model 1

Dependent Variante	: DPR			
Sample	: 20217-2021			
Number of obs	: 330			
ss	0.060651		F (7,322)	1.13
df	329		Prob > F	0.3437
MS	0.000184		R-Squared	0.024
Root MSE	0.01356		Adj R-Square	0.0028
Variable	Coefficient	Std. Error	T-value	P> t
DER	-0.00607	0.0108129	-0.56	0.575
ROE	-0.00567	0.0334484	-0.17	0.866
IO	0.00013	0.0025793	-0.05	0.961
SIZE	0.00092	0.0003493	2.63	0.009
AGE	-0.00071	0.0009497	-0.75	0.453
GROWTH	-0.001	0.0057456	-0.17	0.862
CR	0.00128	0.0047545	0.27	0.788

The coefficient determination test objectives were to acknowledge the impact of independent variables on dependent variables. If the adjusted R-square near 0.1 marked the independent variable had a factor on the dependent variables. Table 11 portrayed the adjusted R-squared for model 1 with several statistics was 0.0028 or 0.28%. The value illustrated by each independent variable on model 1 only had a 0.28% positive impact on the dependent variable.

F-test objectives were to test relationships between variables simultaneously. A significant value in this study was 0.05. If the F-value showed < 0.05 independent variables had an impact on dependent variables. If F-value showed > 0.05 independent variables had no impact on dependent variables. Table 11 portrayed the probability of F (prob > F) with 0.343 or 34.3%, upper than significant value. The probability had a content in model 1 that independent variables simultaneously did not affect the dependent variable.

The T-test objectives were to examine relationships between variables partially. A significant value in this study was 0.05. If the t-value showed < 0.05 independent variables had a significant impact on dependent variables. If the t-value showed > 0.05 independent variables had no significant impact on dependent variables. Hypothesis 1, Hypothesis 2 and Hypothesis 3 according to Table 11 described that first DER had a t-value of 0.575 which meant DER had no significant impact on dependent variables. Second, ROE had a t-value of 0.866 which meant ROE had no significant impact on dependent variables. Third, IO had a t-value of 0.961 which meant IO had no significant impact on dependent variables.

Table 12. Hypothesis Test for Model 2

Dependent Variable	: DPR			
Sample	: 2017-2021			
Number of obs	: 330			
SS	0.060651		F (10, 319)	0.84
df	329		Prob > F	0.5932
MS	0.000184		R-Squared	0.0256
Root MSE	0.01361		Adj R-Squared	-0.005
Variable	Coefficient	Std. Error	T-value	P> t
DER	-0.0039	0.023258	-0.17	0.868
ROE	-0.0096	0.049311	-0.19	0.846
IO	0.00186	0.003884	0.48	0.632
DER*FCF	-0.0044	0.028543	-0.15	0.878
ROE*FCF	-0.0101	0.114588	-0.09	0.93
IO*FCF	-0.0025	0.003658	-0.69	0.493
SIZE	0.00093	0.000352	2.63	0.009
AGE	-0.0007	0.009578	-0.69	0.492
GROWTH	-0.0011	0.005769	-0.18	0.855
CR	0.00127	0.004773	0.27	0.79



Table 12 portrayed the adjusted R-squared for model 2 with a statistics number of -0.005 or -0.5%. The value illustrated each independent variable in model 2 only had a 0.5% negative impact on the dependent variable. Table 12 portrayed the probability of F (prob > F) with 0.593 or 59.3%, then a significant value. The probability had content in model 2 that independent variables simultaneously did not affect the dependent variable.

The T-test for the moderating variable in this study had a significant value of 5%. If the t-value showed < 0.05 meaning the moderating variable weakened the interaction between the independent and dependent variables. If the t-value showed > 0.05 meaning the moderating variable strengthened the interaction between the independent and dependent variables. For Hypothesis 1 to Hypothesis 6, Table 12 described that first, DER had a t-value of 0.868 meaning DER had no significant impact on dependent variables. Second, ROE had a t-value of 0.846 meaning ROE had no significant impact on dependent variables. Third, IO had a t-value of 0.632 meaning IO had no significant impact on the dependent variable. Fourth, DER\*FCF had a t-value of 0.878 meaning FCF strengthened the interaction between DER and dependent variables. Fifth, ROE\*FCF had a t-value of 0.93 meaning FCF strengthened the interaction between ROE and dependent variables and last, IO\*FCF had a t-value of 0.493 meaning FCF strengthened the interaction between IO and dependent variables.

## DISCUSSION

Based on the statistical results, hypotheses were fractioned into accepted or rejected. Capital structure in model 1 misused dividend policy. In Model 2, capital structure also negatively affected dividend policy. Both results indicated the first hypothesis is accepted. Also, the result of the first hypothesis is true in the (Hidayat, 2017) study showed that capital structure harmed dividend policy. The issue portrays that firms prioritize paying return on interest over dividends. That weightier debt could lead to no distribution in dividends.

Profitability in model 1 had a negative insignificant effect on dividend policy. In model 2 profitability negatively affected dividend policy. For the result of both models, profitability positively affected dividend policy decline. Moreover, the result was in line with the study conducted by (Hidayat, 2017) stated that profitability negatively affected dividend policy. It was likely because of another factor like decreases in the labour force's interest or ability to spend a bill that affected a firm's ability to earn and produce profits.

Institutional ownership in model 1 had a positive insignificant effect on dividend policy. In model 2, institutional ownership was positively minor in affecting dividend policy. To conclude both models, The hypothesis that institutional ownership had a positive effect on dividend policy was accepted. The result is equivalent to those (Jacob & Jijo Lukose, 2018; Setia et al., 2022; Trafalgar & Africa, 2019; Tran & Le, 2019; Widodo et al., 2021) studies. This result also strengthened the (Jensen & Meckling, 1976) theory that institutional ownership competency influenced firms' management in making decisions, especially dividends.

Free cash flow as a moderating variable on capital structure and dividend policy statistically resulted in free cash flow that strengthened the negative relationship between capital structure and dividend policy. The result harmonized with the (Guermazi & Bouri, 2017) study that free cash flow strengthened the negative effect of debt and managerial entrenchment. The result implied that four hypotheses about free cash flow strengthened the negative effect on capital structure and dividend policy. This explained why if firms produced free cash flow, they would prefer to use it as an interest return than to use it as a dividend.

Free cash flow as a moderating variable on profitability and dividend policy statistically resulted in free cash flow strengthening the negative relationship between profitability and dividend policy. The result implied that free cash flow had a positive effect on profitability and the dividend policy hypothesis was rejected. A decrease in profit made firms reconsider dividend share. Free cash flow could boost firms with low income to form new strategies to earn more benefits than allocating dividends.

Free cash flow as a moderating variable on institutional ownership and dividend policy statistically resulted in free cash flow strengthening the negative relationship between institutional ownership and dividend policy. The result implied that free cash flow strengthened a positive effect on institutional ownership and the dividend policy hypothesis was rejected. The result explained that free cash flow strongly drove strong for management to decide on dividends when institutional ownership had weak authority over firms.

## CONCLUSIONS

The study projected to acknowledge the role of free cash flows between capital structure, profitability, and institutional ownership on dividend policy. Adopting data from the transportation and logistics industry, we found that to some degree they are strongly correlated, affected negatively or positively. We concluded that first, simultaneously, capital structure, profitability and institutional ownership had no positive effect on dividend policy. Dividend policy is resolved even if a firm is on poor equity, had no profit or is weakened in institutional

ownership. Second, capital structure affected negatively dividend policy. However, firms preferred to pay interest rather than paying dividends to shareholders. Third, profitability affected negatively the dividend policy. Profit is not a major factor for firms to distribute dividends. Fourth, institutional ownership affected dividend policy. Still, in any situation, institutional ownership has given dominance statements to firms. Fifth, free cash flow strengthened negative effects on capital structure and dividend policy. That meant free cash flow could boost firms' decision to pay interest using debt. Sixth, free cash flow strengthened negative effects on profitability and dividend policy. Seventh, free cash flow strengthened negative effects on institutional ownership and dividend policy. FCFs could make institutional ownership positions helpless when dividend policy is settled.

This study has limitations in finding references under free cash flow as a moderating variable which is rarely found. The normality test in this study was also distributed abnormally since the data is above 200 along with the test on heteroskedasticity that only used the White test. This study is also limited to a strange number of data ranges and other factors that might affect but have not been discussed in this research. Based on the limitations, for further study, authors can use another financial ratio such as debt to asset ratio (DAR), return on asset (ROA) and other holders' ownership such as managerial or government ownership. Also, use other populations to widen variations of the results of free cash flow as a moderating variable like manufacturing, oil, gas or mine industries.

## REFERENCES

- Alamudi, A. Al. 2022. *Menilik Perusahaan Di Berbagai Daerah Yang Limbahnya Bikin Resah*. Sumut.
- Angelia, N., & Toni, N. 2020. The Analysis of Factors Affecting Dividend Policy in Food and Beverage Sector Manufacturing Companies Listed in Indonesia Stock Exchange in 2015-2017. *Budapest International Research and Critics Institute BIRCI-Journal: Humanities and Social Sciences*, 32, 902–910. <https://doi.org/10.33258/birci.v3i2.918>
- Bhattacharya, S. 1979. Imperfect Information, Dividend Policy, and “the Bird in the Hand” Fallacy. *The Bell Journal of Economics* 101, 259–270. <https://doi.org/10.2469/dig.v27.n1.3>
- Chen, X., Sun, Y., & Xu, X. 2016. Free Cash Flow, Over-Investment And Corporate Governance in China. *Pacific Basin Finance Journal*, 37, 81–103. <https://doi.org/10.1016/j.pacfin.2015.06.003>
- Fu, J., Xu, F., Zeng, C., & Zheng, L. 2022. Free Cash Flows and Price Momentum. *Journal of Accounting, Auditing and Finance*. <https://doi.org/10.1177/0148558X221091803>
- Guermazi, A., & Bouri, A. 2017. The Effect of Free Cash Flow on the Relationship Between Managerial Entrenchment and Debt : Evidence From French Firms. 82, 77–85.
- Hidayat, R. 2017. *Pengaruh Profitabilitas, Struktur Modal Dan Arus Kas Operasi Terhadap Kebijakan Dividen Perusahaan Studi Kasus Pada Perusahaan Manufaktur Sektor Industri Barang Konsumsi Yang Terdaftar Di Bursa Efek Indonesia*. *Jurnal Pendidikan Akuntansi & Keuangan*, 52, 79–88. <https://doi.org/10.17509/jpak.v5i2.15406>
- Indrati, M., & Amelia, K. 2022. The Effect of Profitability, Liquidity, Leverage and Company Size on the Company's Dividend Policy. *Budapest International Research and Critics Institute-Journal BIRCI-Journal*, 53, 21787–21799. <https://doi.org/10.33258/birci.v5i3.619121787>
- Jacob, C., & Jijo Lukose, P. J. 2018. Institutional Ownership and Dividend Payout in Emerging Markets: Evidence from India. *Journal of Emerging Market Finance*, 171\_suppl, S54–S82. <https://doi.org/10.1177/0972652717751538>
- Jensen, M. C., & Meckling, W. 1976. Theory Of The Firm: Managerial Behavior, Agency Costs, And Ownership Structure. *The Economic Nature of the Firm: A Reader*, Third Edition, 283–303. <https://doi.org/10.1017/CBO9780511817410.023>
- John, K., & Williams, J. 1985. Dividends, Dilution, and Taxes: A Signalling Equilibrium. *The Journal of Finance*, 404, 1053–1070. <https://doi.org/10.1111/j.1540-6261.1985.tb02363.x>
- Meiliyawati, Y., & Rusliati, E. 2020. Insider Ownership, Free Cash Flow, Dan Pertumbuhan Terhadap Dividend Payout Ratio. *Jurnal Riset Akuntansi Kontemporer*, 121, 7–14. <https://doi.org/https://doi.org/10.23969/jrak.v12i1.4040>
- Myers, S. C. 1984. The Capital Structure Puzzle. *The Journal of Finance*, 393, 574–592. <https://doi.org/10.1111/j.1540-6261.1984.tb03646.x>
- Nguyen, T., & Li, H. 2020. Dividend Policy And Institutional Holdings: Evidence from Australia. *International Journal of Financial Studies*, 81, 1–14. <https://doi.org/10.3390/ijfs8010012>
- Rahayu, D., & Rusliati, E. 2019. *Kepemilikan Institusional, Kepemilikan Manajerial, Dan Ukuran Perusahaan Terhadap Kebijakan Dividen*. *Jurnal Riset Akuntansi Kontemporer*, 111, 41–47. <https://doi.org/10.23969/jrak.v11i1.1870>

- Setia, B. I., Alghifari, E. S., Nugraha, N., & Sari, M. 2022. Agency Problem Analysis From Committee And Ownership Structures. *Jurnal Riset Akuntansi Kontemporer*, 141, 92–100. <https://doi.org/10.23969/jrak.v14i1.4841>
- Sindhu, M. I. 2014. Relationship Between Free Cash Flow And Dividend: Moderating Role Of Firm Size. In *Research Journal of Finance and Accounting* ISSN Vol. 5, Issue 5. [www.iiste.org](http://www.iiste.org)
- The ASEAN Secretariat. 2022. *ASEAN Statistical Yearbook 2022*.
- Trafalgar, J., & Africa, L. A. 2019. The Effect Of Capital Structure, Institutional Ownership, Managerial Ownership, And Profitability On Company Value In Manufacturing Companies. *The Indonesian Accounting Review*, 91, 27. <https://doi.org/10.14414/tiar.v9i1.1619>
- Tran, T. X. A., & Le, Q. T. 2019. The Relationship between Ownership Structure and Dividend Policy: An Application in Vietnam Stock Exchange. *Academic Journal of Interdisciplinary Studies*, 82, 131–146. <https://doi.org/10.2478/ajis-2019-0025>
- Widodo, F. P. T., Praptapa, A., Suparlinah, I., & Setyorini, C. T. 2021. The effect of company size, institutional ownership, profitability and leverage on dividends payout ratio. *Journal of Contemporary Accounting*, 32, 77–87. <https://doi.org/10.20885/jca.vol3.iss2.art3>
- Zainuddin, & Mananohas, O. A. 2020. The Effect of Debt Policies, Profitability, Managerial Ownership Structure, and Liquidity on Dividend Policy. *The Indonesian Journal of Accounting Research*, 2303, 411–428. <https://doi.org/10.33312/ijar.483>