

# Effect of Net Profit Margin, Sales Growth, Profitability on Dividends Pay-Out Ratio with Managerial Ownership as Moderation

Eduard Ary Binsar Naibaho<sup>1\*</sup>, Nurul Widyastari<sup>2</sup>  
*Faculty of Economics and Business Pelita Harapan University, Indonesia*  
\*Corresponding Author: Eduard.naibaho@uph.edu

## Abstract

This study aims to test and analyze the relationship between net profit margin, sales growth, profitability to dividend pay-out ratio with managerial ownership as a moderating. The source of this study data uses secondary data from companies available at S&P Capital IQ with a total of 260 observations that have met the criteria used using purposive sampling techniques. This research shows that net profit margin and profitability have a positive influence on the dividend pay-out ratio. Sales growth has a negative influence on the dividend pay-out ratio. The study also showed that managerial ownership as a moderating variable strengthens the relationship between net profit margin, sales growth and profitability to dividend pay-out ratio.

**Keywords** : Net Profit Margin; Sales Growth; Profitability; Dividend Pay-out Ratio; Managerial Ownership  
**JEL Classification** : G350, L65

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## 1. INTRODUCTION

Dividend policy is a matter that has been debated, this is a relevant issue since it will create conflict between the majority and the minority shareholders (Amrullah & Wijaya, 2018). However, the dividend can be distributed as large as possible or as small as possible. However, companies must consider whether the profits generated should be distributed as dividends to the shareholders or as retained earnings for future investment financing (Kurniawan & Jin, 2017).

If the company's dividend is not optimally distributed, then shareholders tend to sell company shares in the capital market to benefit from capital gains. Shareholders are only oriented to dividend pay-out ratio that will be obtained also depending on the size of company profits. Therefore, that is why the company's management can consider by determining how much dividends will be distributed to shareholders using the dividend pay-out ratio (Handoyo & Fathurrizki, 2018). Company will have to make adjustment on his dividend payment. ConocoPhillips, a US Company, in 2016 made the adjustment of dividends from US\$ 74 per share to US\$ 25 per share. The adjustment is impacted by the declining of world oil prices. The reduction of dividend payment provides savings towards

company's budget. This budget savings increase the company's profit and also increase the retained earnings. If in 2016 there were no dividends reduction, the retained earnings will reduce profit and cannot be used as reserves for ConocoPhillips in the future (Sha, 2018).

However, if the dividend is too large, it will lead to difficulties for the company's management to be able to finance its investment opportunities, this is due to the limitation of internal funds. This will pressure management to find alternatives for funding sources. But this alternative might be more expensive. Dividend policy is one of the sources of conflict between the owner of the company (principal) and company management as an agent, known as agency conflict (Widiatmoko et al., 2021).

Net Profit Margin is showing a percentage of net income earned from sales. With the increased in net profit margin derived from company's achievements, it will provide a good signal to the shareholders for providing capital to the company (Sha, 2017). Management and some interested parties are not wanting an increase in sales volume obtained through a greater increase in operating costs, so profits will be reduced. If the volume decreases, it does not always result in losses (Susilawati, 2018).

Sales Growth is a term used to describe growth that may differ from year to year as evidenced in the company's income statement. Maintaining or increasing sales growth is one of the best options for company management as it relates to the welfare of shareholders. Due to the decline in sales growth potential, management will take the decision to cut dividends to build related financial leeway for future investment needs. So the company makes a decision by holding back profits for one period and not paying dividends to the shareholders (Rohmah et al., 2021).

Profitability is a ratio used to measure company's ability to generate profits and the level of efficiency of the company's operating costs as well as efficiency of the company's assets (Azmy, 2018). This ratio describes the survival of the company, whether the company succeeds or not depends on the ability to manage sales costs, assets, operations, employee salaries at the company (Yuniningsih & Taufiq, 2019). If the profit obtained is small, then the distribution of profit to the shareholders will be very minimum. Management will carefully manage profitability to achieve profits and expand the capacity to pay dividends in order for shareholders to obtain substantial dividends (Kurniawan & Jin, 2017).

Managerial ownership is an adjustment of share ownership between shareholders. Managerial ownership can affect the company to achieve goals, profits and have a positive impact on shareholders in a company (Kusumawati & Rosady, 2018). The higher the increase in managerial ownership in the company will increase the value of the company, because management will try to maximize shareholder profits when the company experiences high profits. The company will get a good signal from shareholders if profits increase.

There had been numerous prior research to study the relationship of net profit margin, sales growth, and profitability towards dividend pay-out ratio as follows: net profit margin negatively affects dividends (Zuwita & Henny, 2017), sales growth negatively affects the dividend pay-out ratio (Hantono et al., 2019), profitability has a

positive effect on the dividend pay-out ratio (Kurniawan & Jin, 2017), Managerial ownership has a positive effect between net profit margin and dividend pay-out ratio (Sha, 2017). Managerial ownership has a positive effect between sales growth and dividend pay-out ratio (Susilawati, 2018). Managerial ownership has a positive effect between profitability and dividend pay-out ratio (Pradana & Sanjaya, 2017).

In this study, we are using all the four variables altogether to observe the effect towards dividend pay-out ratio. The study covers for manufacturing in the chemicals commodity sector in the Southeast Asia Countries. The sector itself cover for 36% of the economy within the region (Research, 2020).

## **2. HYPOTHESES DEVELOPMENT**

Based on Jensen & Meckling (1976) definition of the agency theory, conflict with principal leading to the recruitment of various individuals (agent) to perform various roles and responsibilities. This linkage resulting in an employment contract (Kusumawati & Rosady, 2018). If there is a relationship between managerial ownership, shareholders and agency theory, it can derived internal information and future business development from the related stakeholders. Shareholders who are business people who are interested in investing its fund. However, the implementation can not be conducted and adjusted to reflect company conditions (Ayem & Ongirwalu, 2020).

Signaling theory is a grant theory to understand financial management. A signal is a gesture made by the company to the shareholders. Spence (1977) defined that shareholders who obtained signal regarding the quality of the company will reduce information asymmetry. Signaling theory is related to dividends, company management which based on signaling theory related to dividend distribution as an anticipation so that the company's performance can give a positive signal to an investment. This will encourage shareholders to make more investments through buying shares of the company (Purnomo, Albert Kurniawan S.E., 2019).

The relationship between net profit margin and dividend pay-out ratio is to measure the ability to compare net profit margin and sales in a company. The company's management in this case must manage the net profit margin wisely so that the higher the profit obtained through sales, the company will distribute relatively large dividends to shareholders (Susilawati, 2018). Research results from (Zuwita & Henny, 2017) show that showing net profit margin negatively affects dividends, (Utami & Murwaningsari, 2017) net profit margin negatively affects stock returns with dividend policy as a moderation variable, (Rohmah et al., 2021) net profit margin negatively effect dividends.

H1 : Net Profit Margin negative affects the dividend pay-out ratio.

The relationship between agency theory and Sales Growth measures sales growth in the current period with the previous period. The company's management in this case must manage sales growth, the higher the sales figures, the business strategy used in the company is better than before. Management works to do a good job of sales growth which increases the company's net profit as well as shareholders get dividends from the company's sales (Rohmah et al., 2021). Research results from (Hantono et al., 2019) sales growth negatively affects the dividend pay-out ratio, (Rohmah et al., 2021) sales growth negatively affects the dividend pay-out ratio.

H2 : Sales Growth negative affects the dividend pay-out ratio.

The relationship of agency theory to profitability is to measure the rate of return on shareholders' equity. The net profit that has been earned over a certain period will be expressed as the rate of return on shareholders' equity.

The greater the profitability, the increasing achievement of the company, the greater the return on investment will occur (Azmy, 2018). Research from (Kusuma et al., 2018) profitability has a positive effect on dividend pay-out ratio, (Kurniawan & Jin, 2017) profitability has a positive effect on dividend pay-out ratio, from (Pradana & Sanjaya, 2017) profitability has a positive effect on dividend pay-out ratio.

H3 : Profitability positive affects the dividend pay-out ratio.

Increase net profit margins support this as more managerial ownership investment in the company translates into higher dividend payments to shareholders because the higher the managerial ownership, the higher the dividend will be distributed by the company. Research (Sha, 2017) The relationship between net profit margin between managerial ownership and dividends has a positive influence.

H4: Managerial ownership strength the positive relationship between net profit margin and dividend pay-out ratio.

If sales growth increases with managerial ownership also increases, management will make a decision to pay dividends to shareholders (Rohmah et al., 2021). Research (Susilawati, 2018) the relationship between sales growth between managerial ownership and dividends has a positive influence.

H5: Managerial ownership strength the positive relationship between sales growth and dividend pay-out ratio.

Managerial ownership to shareholders occurs alignment in interests in the company. The company's profit increases, the level of managerial ownership increases, it will provide a rate of return on investment (Azmy, 2018). Research from (Pradana & Sanjaya, 2017) the relationship between profitability between managerial ownership and dividends has a positive influence

H6: Managerial ownership strength the positive relationship between profitability and dividend pay-out ratio.

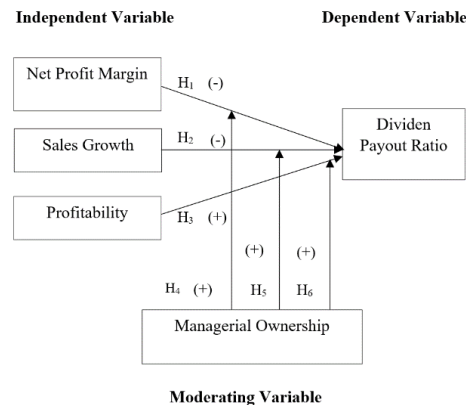


Figure 1. Theoretical Framework

### 3. METHOD, DATA, AND ANALYSIS DATA AND SAMPLE

This study used the population of companies engaged in the manufacturing industry in the chemicals commodity sector for the 2017-2021 period as the population in this study. In the selection of samples, there are criteria that are set as follows: public company in manufacturing industry of commodity chemicals sector, the company presents financial statements related to dependent, independent, moderation and control variables in the period 2017-2021.

Table 1. Detail Observations

Country	Southeast Asia					Total
	Malaysia	Vietnam	Indonesia	Philippines	Thailand	
Commodity Chemical Company	17	23	11	3	24	84
Companies whose financial statements are incomplete	(6)	(13)	(2)	(1)	(4)	(17)
Total	11	10	9	2	20	52
Total Observation 2017 -2021						260

#### Emperical Model

In this study, using a multiple linear regression model. The research model is used as follows:

##### Model 1

$$DPR = \beta_0 + \beta_1NPM + \beta_2SGROW + \beta_3ROE + \beta_4MOWN + \beta_5Age + \beta_5Size + \beta_6N + \beta_7Growth + \varepsilon$$

Information :

DPR	:	Dividend Pay-out ratio
$\beta_{0,1,,,,,7}$	:	Regression coefficient
NPM	:	Net Profit Margin
SGROW	:	Sales Growth
ROE	:	Profitability
MOWN	:	Managerial Ownership <i>MOWN</i>
Age	:	Company age
Size	:	Company size
N	:	Company value
Growth	:	Growth
$\varepsilon$	:	Error

##### Model 2

$$DPR = \beta_0 + \beta_1NPM + \beta_2SGROW + \beta_3ROE + \beta_4MOWN + \beta_5NPM * MOWN + \beta_6SGROW * MOWN + \beta_7ROE * MOWN + \beta_8Age + \beta_9Size + \beta_{10}N + \beta_{11}Growth + \varepsilon$$

Information :

DPR	:	Dividend Pay-out ratio
$\beta_{0,1,,,,,11}$	:	Regression coefficient
NPM	:	Net Profit Margin
SGROW	:	Sales Growth
ROE	:	Profitability
MOWN	:	Managerial Ownership
NPM * MOWN	:	Relationship of Net Profit Margin with Managerial Ownership

- SGROW \* MOWN : Relationship of Sales Growth with Managerial Ownership  
 ROE \* MOWN : Relationship of Profitability with Managerial Ownership  
 Age : Company Age  
 Size : Company Size  
 N : Company Value  
 Growth : Growth  
 ε : Error

**Dependent Variable**

The dependent variable in this study is dividend pay-out ratio. Dividend pay-out ratio is a percentage ratio by comparing dividends that have been distributed to shareholders to profits earned by the company (Utami & Murwaningsari, 2017).

Table 2. Operationalization Variable

Variables	Formula	Reference(s)
<b>Dependent Variable :</b> Dividend pay-out ratio	$DPR = \frac{\text{Dividen Per Share}}{\text{Earning Per Share}}$	(Utami & Murwaningsari, 2017)
<b>Independent Variable :</b> Net Profit Margin	$NPM = \frac{\text{Net income}}{\text{Total Sales}}$	(Utami & Murwaningsari, 2017)
Sales Growth	$SGROW = \frac{\text{Sales T} - \text{Sales T-1}}{\text{Sales T-1}} \times 100\%$	(Hantono et al., 2019)
Profitability	$ROE = \frac{\text{Net Income}}{\text{Total Equity}}$	(Pramukya et al., 2019)
Company Age	Age = Year of Research - Year of the Company's Establishment	(Agustina et al., 2018)
Company Size	Size = Ln (Total Asset)	(Agustina et al., 2018)
Company value	$N = \frac{\text{Market price per share}}{\text{Earnings per share}}$	(Nurkhin et al., 2017)
Growth	$\text{Growth} = \frac{\text{Total Asset T} - \text{Total Asset T-1}}{\text{Total Asset T-1}}$	(Mai, 2017)
<b>Moderating Variable:</b> Managerial Ownership	$MOWN = \frac{\text{Total Managerial Shares and Board of Directors} \times 100}{\text{Total shares outstanding}}$	(Kusumawati & Rosady, 2018)

**Independent Variable**

In this study, the independent variables are net profit margin, sales growth and profitability. Net profit margin is a profitability ratio that compares net income and sales from a company (Utami & Murwaningsari, 2017). Sales growth is sales in the past period and can be used as a prediction of future growth (Hantono et al., 2019). Profitability ratio is this ratio measuring the company's ability to make a profit. In this

study, the profitability is proxied by Return On Equity (ROE) ratio which measures shareholder returns (Pramukya et al., 2019).

**Moderating Variable**

A moderating variable is a kind of variable that can affects the relationship between dependent and an independent variables. The effect could be strengthening, diminish, negate or otherwise alter the association between independent and dependent variables. Managerial ownership is an adjustment of share ownership between shareholders (Kusumawati & Rosady, 2018).

**Control Variable**

Control variables are properties that is used to hold constant or limited in a study since it could influence the outcomes. The control variables for this study are company age, company size, company value and growth. The age of the company is the age since the establishment of the company until this research is conducted (Agustina et al., 2018) . The size of the company is a measured by the total amount of assets of the company. The total amount of the company's assets will be carried out for transformation in the form of logarithms (Agustina et al., 2018). Company value is derived from market price per share divided by the EPS (Nurkhin et al., 2017), and The company's growth is a change in the decline and increase in total assets owned by the company (Mai, 2017).

**4. RESULTS**

*Table 3.* Descriptif Analysis Result

<b>Var</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>	<b>Observation</b>
<b>DPR</b>	0.0996083	0.238426	0.0000	0.9931101	260
<b>NPM</b>	0.1062903	0.1125838	0.0006062	0.8011879	260
<b>SGROW</b>	0.1784084	0.1842845	0.0012046	0.9553821	260
<b>ROE</b>	0.1083509	0.098723	0.0006631	0.8654176	260
<b>MOWN</b>	0.2241066	0.2629636	0.0000	0.9052449	260
<b>AGE</b>	39.17308	18.33485	8	95	260
<b>SIZE</b>	11.90916	1.942098	7.603849	16.93839	260
<b>N</b>	0.1013484	0.1183672	0.0000	0.8087897	260
<b>GROWTH</b>	0.1435451	0.1679288	0.0012878	0.9849005	260

Source: Stata 16

Table 3 – Descriptive Analysis results for model 1 which has been carried out. The test results are dividend pay-out ratio (DPR) with a minimum value (min) of 0 and a maximum value (max) of 0.9931101 with an average value (mean) of 0.996083 and a standard deviation (std. dev) of 0.238426. Net profit margin as an independent variable using NPM ratio measurement with a minimum value (min) of 0.0006062 and a maximum value (max) of 0.8011879 with an average value (mean) of 0.1125838 and a standard deviation (std. dev) of 0.1062903. Sales growth as an independent variable using the measurement of the SGROW ratio with a minimum value (min) of 0.0012046 and a maximum value (max) of 0.9553821 with an average value (mean) of 0.1784084 and a standard deviation (std. dev) of 0.1842845. Profitability as an independent variable using proxy measurement return on equity (ROE) with a minimum value (min) of 0.006631 and a maximum value (max) of 0.8654176 with an average value (mean) of 0.1083509 and a standard deviation (std. dev) of 0.098723.

Managerial ownership as an independent variable using MOWN measurements with a Managerial ownership as an independent variable using MOWN measurements

with a minimum value (min) of 0 and a maximum value (max) of 0.9052499 with an average value (mean) of 0.2241066 and a standard deviation (std. dev) of 0.2629636. Age as a control variable using the measurement of the company's age with a minimum value (min) of 8 and a maximum value (max) of 95 with an average value (mean) of 39.17308 and a standard deviation (std. dev) of 18.33485.

N as a control variable using the measurement of the company's value with a minimum value (min) of 0 and a maximum value (max) of 0.8087897 with an average value (mean) of 0.1013484 and a standard deviation (std. dev) of 0.1183672. Growth as a control variable using growth measurements with a minimum value (min) of 0.0012878 and a maximum value (max) of 0.9849005 with an average value (mean) of 0.1435451 and a standard deviation (std. dev) of 0.1679288.

**Table 4.** Correlation Analysis

	DPR	NPM	SGROW	ROE	MOWN	AGE	SIZE	N	GROWTH
DPR	1,0000								
NPM	0.0453	1,0000							
SGROW	-0.0546	0.1276	1,0000						
ROE	0.0576	0.3426	0.0162	1,0000					
MOWN	0.0099	-0.1275	-0.0765	-0.0990	1,0000				
AGE	-0.0814	0.0549	-0.0556	-0.0610	0.1303	1,0000			
SIZE	0.0237	0.0669	0.0902	-0.1522	-0.0811	-0.0328	1,0000		
N	-0.0093	0.2661	0.0772	0.2070	0.0595	0.0186	0.0348	1,0000	
GROWTH	0.1698	0.0799	0.3469	0.1159	0.0033	-0.0627	0.0481	0.0132	1,0000

Source: Stata 16

In this study, the correlation analysis in Table 4 showed that the value of the correlation coefficient of each variable with other variables  $< 0.5$  where the variable has a weak attachment. The relationship between variables and other variables has a negative relationship. In the correlation analysis study, moderating was excluded since the relationship between the dependent variable and the independent variable has been illustrated in the results of the correlation analysis.

### Testing of Classical Assumptions

**Table 5.** Normality Test Result - Model 1

Var	Skewness	Kurtosis	Prob.	Obs
DPR	0.0000	0.0000	0.0000	260
NPM	0.0000	0.0000	0.0000	260
SGROW	0.0000	0.0000	0.0000	260
ROE	0.0000	0.0000	0.0000	260
MOWN	0.0000	0.7780	0.0000	260
AGE	0.0000	0.0027	0.0000	260
SIZE	0.0000	0.2767	0.0002	260
N	0.0000	0.0000	0.0000	260
GROWTH	0.0000	0.0000	0.0000	260

Source: Stata 16

Table 5 - Normality test for Model 1 a probability value of 0.0000 less than a significant value of 0.05. This causes the data of dependent, independent, control variables to be abnormally undistributed



Table 6. Normality Test Result – Model 2

Var	Skewness	Kurtosis	Prob.	Obs
DPR	0.0000	0.0000	0.0000	260
NPM	0.0000	0.0000	0.0000	260
SGROW	0.0000	0.0000	0.0000	260
ROE	0.0000	0.0000	0.0000	260
MOWN	0.0000	0.7780	0.0000	260
NPM*MOWN	0.0000	0.0000	0.0000	260
SGROW*MOWN	0.0000	0.0000	0.0000	260
ROE*MOWN	0.0000	0.0000	0.0000	260
AGE	0.0000	0.0027	0.0000	260
SIZE	0.0000	0.2767	0.0000	260
N	0.0000	0.0000	0.0002	260
GROWTH	0.0000	0.0000	0.0000	260

Source: Stata 16

Table 6 – Normality Test results for Model 2 a probability value of 0.0000 less than a significant value of < 0.05. This causes dependent, independent, control and moderating variable data to be abnormally undistributed. Normality test results with a probability value of 0.0000 in Model 1 and Model 2 showed less than a significant value of 0.05. Then the normality test on both Models is normal non-distributed data. This happens because of the existence of stray data variables in the company that are used as observation objects.

Table 7. Multicollinearity Test Results - Model 1

Model	Variable	VIF	1/VF
1	C	NA	NA
	NPM	1.24	0.804565
	SGROW	1.17	0.853554
	ROE	1.23	0.811251
	MOWN	1.06	0.939120
	AGE	1.04	0.965292
	SIZE	1.06	0.943236
	N	1.12	0.896599
	GROWTH	1.16	0.860733

Source: Stata 16

Table 7 – Multicollinearity Test for Model 1 the dependent, independent, control variables have a VIF value < 10, then it is stated that the multicollinearity test has no multicollinearity.

Table 8. Multicollinearity Test Results - Model 2

Model	Variable	VIF	1/VF
2	C	NA	NA
	NPM	1.78	0.560996
	SGROW	1.73	0.579515
	ROE	2.42	0.412619
	MOWN	3.30	0.302707
	NPM*MOWN	2.72	0.367144
	SGROW*MOWN	2.91	0.344202
	ROE*MOWN	3.34	0.299622
	AGE	1.06	0.943249

<b>SIZE</b>	1.07	0.930401
<b>N</b>	1.14	0.875575
<b>GROWTH</b>	1.17	0.853068

Source: Stata 16

**Table 9.** Heteroscedasticity Test Results

Model	Chu-Square	Prob.Chi-Square
1	42.39	0.5407
2	58.18	0.8625

Source: Stata 16

Table 9 – Heteroscedasticity Test for Model 1, with the value of the probability of the dependent, independent, moderating and control variables > 0.05. This suggests that testing on Model 1 lacks Heteroskedasticity on multiple linear regression models. Model 2 profitability of dependent, independent, moderating and control variables > 0.05. This suggests that testing in Model 2 lacks Heteroskedasticity in multiple linear regression models.

Model	Prob>F
1	2.279625
2	2.279024

Source: Stata 16

Table 10 – Autocorrelation Test for Model 1 the probability value of 2.279625 is greater than > 0.05 thus it can be concluded that in Model 1 there is no autocorrelation. In Model 2 the probability value of 2.279024 is greater than > 0.05, it can be concluded that in Model 2 there are no autocorrelation.

**Regression Model**

**Table 11.** Chow Test Results

Model	F-Test	Prob.Chi-Square
1	0.74	0.8948
2	0.82	0.7905

Source: Stata 16

Table 11 – Chow Test for Model 1 the probability value in the study is 0.8948 and is greater than the profitability value of > 0.05, it can be concluded that using the common effect model for Model 1. Model 2 shows that the value of the profitability value in the study is 0.7905 and is greater than the profitability value of > 0.05, so it can be concluded that using the common effect model in Model 2.

**Table 12.** Hausman Test Results

Model	Chi-Square	Prob.Chi-Square
1	25.63	0.0006
2	30.02	0.0009

Source: Stata 16

Table 12 – Hausman Test for Model 1 the profitability value in the study is 0.0006 and is smaller than the profitability value  $< 0.05$ , it can be concluded that using the fixed effect model in Model 1. Model 2 shows that the value of the profitability value in the study is 0.0009 and is less than the profitability value of  $< 0.05$ , so it can be concluded that using the fixed effect model in Model 2.

**Table 13.** Lagrange Multiplier Test Results

Model	Chi-Square	Prob.Chi-Square
1	0.00	1.000
2	0.00	1.000

Source: Stata 16

Table 13 – Lagrange Multiplier Test for Model 1 the profitability value in the study is 1,000 and is greater than the profitability value of  $> 0.05$ , it can be concluded that using the common effect of the model in Model 1. Model 2 shows that the value of the profitability value in the study is 1,000 and is greater than the profitability value of  $> 0.05$ , so it can be concluded that using the common effect model in Model 2.

### Hypothesis Test Result

**Table 14.** T-Test Result – Model 1

Variable	Coefficient	T-test	Prob.
C	0.729586	0.70	0.487
NPM	0.1024171	0.71	0.481
SGROW	-0.1753163	-2.04	0.043
ROE	0.0607126	0.37	0.713
MOWN	0.0192005	0.33	0.739
AGE	-0.0010238	-1.26	0.209
SIZE	0.0032608	0.42	0.675
N	-0.0409787	-0.31	0.754
GROWTH	0.2897094	3.08	0.002
	<b>F-Value</b>		1.76
	<b>Prob&gt;F</b>		0.0854
	<b>R-Squared</b>		0.0531
	<b>Adjusted R Square</b>		0.0229

Source: Stata 16

The Adjusted R2 Square value in Table 14 – for Model 1 is 0.0229 it can be stated that the variables net profit margin, sales growth, profitability, managerial ownership, company age, company size, company value and growth affect the dividend pay-out ratio of 2.29%, while other variables outside the 97.71% of the research model used.

The value of R2 in Table 15 is 0.0148. It can be stated that the variables net profit margin, sales growth, profitability, net profit margin \*managerial ownership, sales growth\*managerial ownership, profitability\*managerial ownership, company age, company size, company value and growth stimultan affect the dividend pay-out ratio of 1.48%, while other variables outside the 98.52% research model used.

For hypothesis 1, hypothesis 2, hypothesis 3. Based on the table of significant test results T can be seen from the profitability value of each variable as follow T test result for net profit margin(NPM) against dividend pay-out ratio. The profitability value of the net profit margin of 0.481 is greater (0.05). So the first hypothesis shows that net profit margin

does not have a significant positive effect on the dividend pay-out ratio. T test results for sales growth (SGROW) against dividend pay-out ratio. The profitability value of sales growth of 0.043 is smaller (0.05). So the second hypothesis shows that sales growth has a significant negative effect on the dividend pay-out ratio. T test results for profitability (ROE) to dividend pay-out ratio. The profitability value of profitability by 0.713 is greater (0.05). So the third hypothesis shows that profitability does not have a significant positive effect on the dividend pay-out ratio.

Table 15. T-Test Result – Model 2

Variable	Coefficient	T-test	Prob.
C	0.0721483	0.68	0.495
NPM	0.1692458	0.97	0.333
SGROW	-0.181044	-1.73	0.085
ROE	0.1229175	0.53	0.597
MOWN	0.0677853	0.67	0.505
NPM*MOWN	-0.4015656	-0.78	0.435
SGROW*MOWN	0.1051756	0.28	0.777
ROE*MOWN	-0.2013389	-0.32	0.751
AGE	-0.001133	-1.37	0.171
SIZE	0.0026448	0.34	0.736
N	-0.0565142	-0.43	0.671
GROWTH	0.2820319	2.97	0.003
<b>F-value</b>			1.35
<b>Prob&gt;F</b>			0.1952
<b>R-Squared</b>			0.0567
<b>Adjusted R Square</b>			0.0148

Source: Stata 16

For hypothesis 4, hypothesis 5, hypothesis 6. Based on table the results of the significant test T can be seen from the profitability value of each variable as follow the results of the T test for netprofit margin (NPM) with managerial ownership (MOWN) as a coding variable have a profitability value of 0.435. So the fourth hypothesis suggests that managerial ownership reinforces the negative influence of the net profit margin (NPM\*MOWN) on the dividend pay-out ratio. T test results for sales growth (SGROW) with managerial ownership (MOWN) as a coding variable have a profitability value of 0.777.

So the fifth hypothesis suggests that managerial ownership reinforces the influence of the positive relationship between sales growth (SGROW\*MOWN) on the dividend pay-out ratio. The results of the T test for profitability (ROE) with managerial ownership (MOWN) as a coding variable have a profitability value of 0.751. So the sixth hypothesis suggests that managerial ownership reinforces the influence of the negative relationship of profitability (ROE\*MOWN) onthe dividend pay-out ratio.

## 5. DISCUSSION

### Net Profit Margin Positive on Dividend Pay-out Ratio

Based on the results of hypothesis testing in Table 14, net profit margin has a positive and insignificant effect towards dividend pay-out ratio. The net profit margin ratio

explains that the higher the profit earned from the sales, the company will distribute a relatively large dividend to its shareholders. The results of this study also prove that net profit margin has a positive and insignificant effect on the dividend pay-out ratio and contradicts with the previous research conducted by (Rohmah et al., 2021)(Rahayu & Rusliati, 2019)(Utami & Murwaningsari, 2017) stated that it has negative effect towards dividend pay-out ratio.

#### **Sales Growth Negative on Dividend Pay-out Ratio**

Based on the results of hypothesis testing in Table 14, sales growth has a negative and significant effect towards dividend pay-out ratio. In the event of a decrease in the potential sales growth ratio, management will take the decision to cut dividends as to build financial leeway as anticipation for the future investment needs. The results of this study also prove that sales growth has a significant negative effect on the dividend pay-out ratio and it is align with the previous research conducted by (Hantono et al., 2019)(Rohmah et al., 2021).

#### **Profitability Positive on Dividend Pay-out Ratio**

Based on the results of hypothesis testing in Table 14, profitability has a positive and insignificant effect on the dividend pay-out ratio. The greater the profitability, the better the company's achievement since the rate of return on investment is increasing. Therefore, it can be concluded that the second hypothesis that reveals the effect of profitability has a positive and insignificant effect on the dividend pay-out ratio. The results of this study also prove that profitability has a positive and insignificant effect towards the dividend pay-out ratio and it is align with the previous research conducted by (Kurniawan & Jin, 2017)(Pradana & Sanjaya, 2017).

#### **Managerial Ownership Strengthening the Negative Relationship Between Net Profit Margin Towards Dividend Pay-out Ratio**

Based on the results of hypothesis testing in Table 15, managerial ownership as a moderating variable strengthening the negative relationship between the effect of net profit margin towards dividend pay-out ratio. High managerial ownership will allocate net profit margin as retained earnings for future investment financing. The results of the study contradicts with the previous research conducted by (Sha, 2017) which stated that net profit margin positive affects the dividend pay-out ratio with managerial ownership as a moderating variable.

#### **Managerial Ownership Strengthening The Positive Relationship Between Sales Growth Towards Dividend Pay-out Ratio**

Based on the results of hypothesis testing in Table 15, managerial ownership as a moderating variable strengthening the positive relationship between the effect of sales growth towards dividend pay-out ratios. The company's management task is to ensure the sales growth is sustained and increases the company's net profit as for the shareholders to get their dividends from the company turnover. In the event of a decline in sales growth potential, management will take the decision to cut dividends to build financial leeway as to anticipate Company's future investment needs (Susilawati, 2018).

#### **Managerial Ownership Strengthening The Negative Relationship Between Profitability Towards Dividend Pay-out Ratio**

Based on the results of hypothesis testing in Table 15, managerial ownership as a moderation variable strengthening the negative relationship between the effect of profitability towards the dividend pay-out ratio. The greater the profitability, the company's increasing achievements occur because the level of return on investment is increasing. The results of the study contradict the research conducted by (Pradana &

Sanjaya, 2017) states that profitability positive affects the dividend pay-out ratio with managerial ownership.

## **6. CONCLUSION, LIMITATIONS, AND SUGGESTIONS CONCLUSION**

The results of this study showing that the effect of net profit margin, sales growth, profitability on dividend pay-out ratio with managerial ownership as moderation. It can be concluded as follows simultaneous effect of net profit margin, sales growth, profitability and managerial ownership on the dividend pay-out ratio did not have a significant effect on commodity chemicals companies in Southeast Asian countries (Indonesia, Philippines, Vietnam, Thailand and Malaysia) for the 2017-2021 period.

It is partially known that net profit margin has a positive and insignificant effect on the dividend pay-out ratio. Sales growth has a negative and significant effect on the dividend pay-out ratio. Profitability has a positive and insignificant effect on the dividend pay-out ratio. Managerial ownership as moderation strengthens the negative relationship between the effect of net profit margin on dividend pay-out ratio. Managerial ownership as moderation strengthens the positive relationship between the effect of sales growth on the dividend pay-out ratio. Managerial ownership as a moderation variable strengthens the negative relationship between the effect of profitability on the dividend pay-out ratio.

### **Limitation and suggestions**

For companies, they make references and information using the dividend pay-out ratio so that they can find out the percentage of profit in the form of dividends that will be distributed to shareholders. For shareholders as information for decision-making methods in investing in a company. For subsequent researchers, it can be used as a reference for the next research that will choose a similar topic.

This study only uses a sample of commodity chemicals sector companies so it does not discuss the overall testing of net profit margin, sales growth, profitability to dividend pay-out ratio with managerial ownership as moderating. This study has limitations in the period of the study year. The period used in 2017-2021 with 5 Southeast Asian countries namely: Malaysia, Indonesia, Philippines, Thailand and Vietnam. The research model has problems in the normality test because the research data > 200 data and treatment has been carried out to reduce the problem but there are still problems in the normality test. In the heteroskedasticity test research model, treatment has been carried out using the White test because if you don't use the treatment. The test has heteroskedasticity test problems.

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