

Return On Assets, Dividend Payout, and Firm Value: Empirical Evidence on the Role of Managerial Ownership

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Abstract. Firm value plays a crucial role in making investment decisions. This study aims to examine the influence of return on assets and dividend payout on firm value, considering managerial ownership. This study utilizes panel data with 104 observation samples from companies listed in the IDX30 index on the Indonesia Stock Exchange from 2014 to 2021. Empirical evidence shows that return on assets has a positive and significant influence on firm value. However, dividend payout does not have an influence on firm value. Similarly, managerial ownership has been found to be unable to strengthen the relationship between return on assets and firm value, as well as dividend payout and firm value.

Keywords: return on assets, dividend payout, firm value, managerial ownership

1 Introduction

The valuation of a company is an evaluation carried out by shareholders on the company's performance, which holds significant importance for investors as a guide in making investment decisions in the company (Nirawati et al., 2022). Return On Assets (ROA) is a method of evaluating a company's profitability based on its total assets by comparing after-tax earnings to the average total assets (Kartika et al., 2022). Dividend policy is the company's decision in determining the amount of dividends to be distributed to shareholders or retained as retained earnings (Senata, 2016). IDX30 facilitates investors in filtering stock choices, as this index includes the 30 companies in Indonesia with the highest liquidity. Thus, IDX30 stocks have a high level of trading activity and market capitalization.

2 Research Methods

The research focused on companies that were included in the IDX30 listing from 2014 to 2021. The selection of the research sample followed purposive sampling and included companies that consistently remained in the IDX30 index and maintained a regular dividend distribution pattern from 2014 to 2021. The sample comprised IDX30 Index companies with comprehensive data available for the studied variables throughout the period from 2014 to 2021.

In this research, the primary focus is on the firm's value, which serves as the dependent variable. The assessment of firm value in this study is established through the utilization of the Price Book Value (PBV) metric. The research encompasses independent variables, such as return on assets and dividend policy. Additionally, the study integrates managerial ownership as the moderating variable.

3 Results

3.1 Descriptive Statistics

The results of the descriptive statistical analysis in this study are as follows::

Table 1. Analysis Descriptive Statistics

Descriptive Statistics					
	N	Min	Max	Mean	Std. Deviation
X 1	104	.37258	44.67457	9.27384903	9.4346659657673
X 2	104	7.5247	180.8481	51.7708857	27.722637324447
M	104	.00000	15.15000	1.02820747	3.4497373728470
Y	104	.35372	82.45060	6.64518311	15.108199287205

The data analysis in this study encompasses both descriptive analysis and simple linear regression analysis. From the descriptive analysis, the following information was extracted based on Table 1:

1. The variable Return on Assets (X1) exhibits a minimum value of 0.372, a maximum value of 44.674, a mean value of 9.273, and a standard deviation of 9.434.
2. The variable Dividend Policy (X2) displays a minimum value of 7.524, a maximum value of 180.848, a mean value of 51.770, and a standard deviation of 27.722.
3. The Managerial Ownership variable (M) has a minimum value of 0.000, a maximum value of 15.150, a mean value of 1.028, and a standard deviation of 3.449.
4. The Firm Value variable (Y) showcases a minimum value of 0.353, a maximum value of 82.450, a mean value of 6.645, and a standard deviation of 15.108..

3.2 Classic Assumption Test

In this study, four classical assumption tests were conducted to assess the underlying assumptions of the statistical analysis. These tests include assessments for normality, autocorrelation, multicollinearity, and heteroskedasticity. The results of these classical assumption tests were obtained from the SPSS 25 output and are summarized below:

Table 2. Classic Assumption Test

Test Type	Test Results	Information
Normality	<i>Asymp.sig (2-Tailed) = 0,076 > 0,05</i>	Normally distributed
Autocorrelation	<i>Nilai Runs Test = 0,470 > 0,05</i>	Not happend autocorrelation
Multicollinearity	<i>Return on Assets (X1)</i> VIF = 1,007 < 10 Tolerance 0,993 > 0,10	Not happend Multicollinearity
	<i>Dividend Payout (X2)</i> VIF = 1,011 < 10 Tolerance 0,989 > 0,10	Not happend Multicollinearity
	<i>Managerial Ownership (M)</i> VIF = 1,012 < 10 Tolerance 0,98 > 0,10	Not happend Multicollinearity
Heteroscedaticity	<i>Return on Assets (X1)</i> Sig = 0,162 > 0,05	Not happend heteroscedaticity
	<i>Dividend Payout (X2)</i> Sig = 0,105 > 0,05	Not happend heteroscedaticity
	<i>Managerial Ownership (M)</i> Sig = 0,168 > 0,05	Not happend heteroscedaticity

In this study, various statistical tests were employed to assess the classical assumptions for the analysis:

1. Normality Test: The normality of the data was tested using the Kolmogorov-Smirnov test, which evaluates whether the data follows a normal distribution. The results in Table 4.2 show that the Asymp. Sig. (2-tailed) value is 0.076, which exceeds the threshold of 0.05. Therefore, it can be concluded that the data adheres to a normal distribution and satisfies the assumption of normality.
2. Multicollinearity Test: The multicollinearity test was conducted to determine whether the independent variables (Return on Assets, Dividend Policy, and Managerial Ownership) were highly correlated. The results indicate that there is no significant multicollinearity, as the tolerance values are greater than or equal to 0.10, and the VIF (Variance Inflation Factor) values are less than or equal to 10.
3. Heteroskedasticity Test: The presence of heteroskedasticity, which refers to non-constant variance in the residuals, was examined using the Glatjer test. The results in Table 4.2 suggest that there is no significant heteroskedasticity, as the significance values are greater than or equal to 0.05 for the variables Return on Assets, Dividend Policy, and Managerial Ownership.
4. Autocorrelation Test: The study employed the Runs Test to assess autocorrelation, which examines whether there is a systematic pattern in the residuals over time. The results indicate that there is no significant autocorrelation, as the significance value is 0.470, which is greater than the 0.05 threshold.

These test results collectively indicate that the assumptions underlying the statistical analysis in this study have been reasonably met, supporting the validity of the study's findings.

3.3 Hypothesis Test

The hypotheses proposed in this study pertain to whether there is a significant influence between the independent variables (Return on Assets and Dividend Policy) and the dependent variable (Firm Value) partially. Below are the hypothesis tests from the SPSS output:

Table 3. Hypothesis Test

Type Test	Test Results	Information
Test Parsial (Test t)	<i>Return on Assets (X1)</i> <i>Constant</i> = 0,142 <i>t</i> = 8,137 <i>B</i> = 0,196 <i>Sig.</i> = 0,000 < 0,05	Hypothesis accepted
	<i>Dividend Payout (X2)</i> <i>Constant</i> = 1,929 <i>t</i> = 1,648 <i>B</i> = 0,009 <i>Sig.</i> = 0,103 > 0,05	Hypothesis rejected

3.3.1 Simple Linear Regression Analysis

In this study, simple regression analysis is employed to determine whether there is an influence of the independent variables (Return on Assets and Dividend Policy) on the dependent variable (Firm Value).

Based on Table 4.3, the results of the regression analysis yield the following simple linear regression equations for the models used in this study:

$$\text{Hypothesis 1: } Y = 0.142 + 0.196X_1 + e$$

$$\text{Hypothesis 2: } Y = 1.929 + 0.009X_2 + e$$

Explanations for each coefficient of the variables are as follows:

The constant value in the first hypothesis (0.142) suggests that assuming the independent variable, Return on Assets, remains constant, the Firm Value is projected to rise. Furthermore, the positive regression coefficient for the Return on Assets variable (0.196) signifies a favorable effect on Firm Value. This implies that an increase in Return on Assets corresponds to a simultaneous increase in Firm Value.

Similarly, the constant value in the second hypothesis (1.929) implies that if the independent variable, Dividend Policy, remains constant, the Firm Value is anticipated to increase. The positive regression coefficient for the Dividend Policy variable (0.009) indicates that Dividend Policy exerts a positive impact on Firm Value. This suggests that as Dividend Policy rises, so does the Firm Value.

3.3.2 Significance of Individual Parameter Test (T-test)

The partial test (t-test) is employed to examine the influence of each independent variable (Return on Assets and Dividend Policy) on the dependent variable (Firm Value).

Based on Table 3, the results of the t-test can be summarized as follows:

1. Influence of Return on Assets on Firm Value:

The significance value for the influence of Return on Assets on Firm Value is 0.000 < 0.05. This means that, partially, Return on Assets has a significant impact on Firm Value. Therefore, the first hypothesis (H1) is accepted.

2. Influence of Dividend Policy on Firm Value:

The significance value for the influence of Dividend Policy on Firm Value is 0.103 > 0.05. This indicates that, partially, Dividend Policy does not have a significant impact on Firm Value. Therefore, the second hypothesis (H2) is rejected

3.3.3 Moderated Regression Analysis (MRA)

Testing using the Moderated Regression Analysis (MRA) method involves regression analysis that includes a moderating variable. In this study, a single moderating variable is employed, namely the Managerial Ownership variable.

Table 4. Results of Moderated Regression Analysis - Managerial Ownership Moderating Return on Assets on Firm Value

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.153	.192		6.010	.000
	X1	.198	.023	.653	8.663	.000
	M	-.035	.056	-.089	-.629	.531
	x1m	-.014	.008	-.230	-1.637	.105

a. Dependent Variable: Y

The results from the MRA test in the table above can yield the regression equation model as follows:

$$H3 : Y = 1,153 + 0,198X1 - 0,035M - 0,014X1*M + e$$

1. The constant value (a) in H3 = 1.153 implies that when we keep the variables Return on Assets (X1), Managerial Ownership (M), and the interaction variable between Return on Assets and Managerial Ownership (X1*M) at zero, the Firm Value is projected to increase by 1.153.
2. The coefficient for X1, at 0.198, indicates that when we hold the variables Managerial Ownership (M) and the interaction variable between Return on Assets and Managerial Ownership (X1*M) at zero, a one-unit increase in Return on Assets will correspond to a 0.198 increase in Firm Value.
3. The coefficient for M, at -0.035, signifies that when we maintain the variable Return on Assets (X1) and the interaction variable between Return on Assets and Managerial Ownership (X1*M) at zero, a one-unit increase in Managerial Ownership will result in a 0.035 decrease in Firm Value.
4. The coefficient for X1*M, at -0.014, indicates that when we assume the variables Return on Assets (X1) and Managerial Ownership (M) are both zero, a one-unit increase in the interaction between Return on Assets and Managerial Ownership will lead to a 0.014 decrease in Firm Value.
5. The significance value for the interaction variable between Return on Assets and Managerial Ownership is 0.105, with a significance level of 0.105, which is greater than

0.05. This suggests that the interaction variable between Return on Assets and Managerial Ownership does not exert a significant influence on Firm Value. Moreover, the introduction of the moderation variable has pushed the significance value further away from 0.05, specifically to 0.105, in contrast to the non-moderated scenario, where the significance value was considerably smaller than 0.105, specifically 0.000.

Table 5. Results of Moderated Regression Analysis - Managerial Ownership Moderating Dividend Policy on Firm Value

Model		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.123	.308		6.900	.000
	X2	.008	.006	.148	1.476	.143
	M	-.088	.101	-.223	-.871	.386
	X2m	-.001	.002	-.100	-.392	.696

a. Dependent Variable: Y

The results from the MRA test in the table above can yield the regression equation model as follows:

$$H4 : Y = 2,123 + 0,008X2 - 0,088M - 0,001X2*M + e$$

1. The constant value (a) in H4 = 2.123 can be understood as follows: Assuming that the variables Dividend Policy (X2), Managerial Ownership (M), and the interaction variable between Dividend Policy and Managerial Ownership (X2*M) are held constant at zero, the Firm Value is anticipated to increase by 2.123.
2. The coefficient for X2, at 0.008, indicates that if we maintain the variables Managerial Ownership (M) and the interaction variable between Dividend Policy and Managerial Ownership (X2*M) at zero, for every one-unit increase in Dividend Policy, there is an expected increase of 0.008 in Firm Value.
3. The coefficient for M, at -0.088, suggests that when we assume that the variable Dividend Policy (X2) and the interaction variable between Dividend Policy and Managerial Ownership (X2*M) are constant (set to zero), each one-unit increase in Managerial Ownership is associated with a decrease of 0.088 in Firm Value.
4. The coefficient for X2*M, at -0.001, indicates that when we consider the variables Dividend Policy (X2) and Managerial Ownership (M) as fixed (set to zero), a one-unit increase in the interaction between Dividend Policy and Managerial Ownership leads to a decrease of 0.001 in Firm Value.
5. The significance value of the interaction variable between Dividend Policy and Managerial Ownership is 0.696, which exceeds the threshold of 0.05. This suggests that the interaction variable between Dividend Policy and Managerial Ownership does not exert a significant influence on Firm Value. Furthermore, the introduction of the moderation variable has increased the significance value further away from 0.05, specifically to 0.696, in contrast to the non-moderated scenario where the significance value was significantly smaller than 0.696, specifically 0.103.

4 Discussion

4.1 Influence of Return on Assets on Firm Value:

The study's findings suggest that, in companies listed on the IDX30 Index of the Indonesia Stock Exchange from 2014 to 2021, Return on Assets exerts a positive and statistically significant

impact on Firm Value. This outcome can be rationalized by considering that Return on Assets is a profitability metric that gauges the extent to which a company generates profits or earnings relative to its assets. A higher Return on Assets is indicative of the company's capacity to generate greater profits, which, in turn, tends to elicit a more positive response from investors, ultimately boosting the company's Firm Value.

4.2 Influence of Dividend Policy on Firm Value:

The study's conclusion indicates that, in the case of companies listed on the IDX30 Index of the Indonesia Stock Exchange from 2014 to 2021, Dividend Policy does not exert a significant influence on Firm Value. This result can be explained by recognizing that dividend-paying companies typically correspond to those that have achieved profits or earnings in their operational activities. Conversely, a company that is profitable may not always distribute dividends, as it may have other financial commitments to meet apart from dividend payments. Furthermore, if a company is not profitable or is incurring losses, it may abstain from distributing dividends.

1. Managerial Ownership Moderating Return on Assets and Firm Value:

The research findings indicate that in companies listed on the IDX30 Index of the Indonesia Stock Exchange from 2014 to 2021, Managerial Ownership does not play a role in altering the relationship between Return on Assets and Firm Value. Before the introduction of Managerial Ownership as a moderator, Return on Assets had a significant impact on Firm Value, with a much lower significance level. However, after considering Managerial Ownership as a moderator, the significance level of Return on Assets increased substantially compared to its pre-moderation level. Consequently, it can be concluded that the presence of Managerial Ownership does not change the influence of Return on Assets on Firm Value.

2. Managerial Ownership Moderating Dividend Policy and Firm Value:

The study's conclusion is that Managerial Ownership does not alter the relationship between Dividend Policy and Firm Value in companies listed on the IDX30 Index of the Indonesia Stock Exchange from 2014 to 2021. Before introducing Managerial Ownership as a moderator, Dividend Policy did not have a significant impact on Firm Value, with a much higher significance level. However, after considering Managerial Ownership as a moderator, the significance level of Dividend Policy increased significantly compared to its pre-moderation level. Therefore, it can be concluded that the presence of Managerial Ownership does not change the relationship between Dividend Policy and Firm Value. These findings collectively offer insights into the relationships and moderating effects of the studied variables on Firm Value within the context of IDX30 Index companies during the specified timeframe.

The primary objective of this research was to investigate how Return on Assets and Dividend Policy impact Firm Value, considering Managerial Ownership as a moderating factor. To achieve this, the study employed a combination of a simple linear regression model and Moderated Regression Analysis (MRA). Based on the research findings, the following conclusions can be drawn:

1. The research outcomes demonstrate a positive and statistically significant impact of Return on Assets on Firm Value. This observation stems from the fact that Return on Assets serves as a profitability metric measuring the extent to which a company generates profits from its assets.

2. The study findings indicate that Dividend Policy does not exert a significant influence on Firm Value. This observation could be attributed to shareholders' preference for capital gains in the short term over dividends.
3. The research findings reveal that Managerial Ownership does not alter the relationship between Return on Assets and Firm Value. This might be attributed to not all profits being distributed to shareholders (the principal), but instead being utilized for management's interests (the agents).
4. The research results demonstrate that Managerial Ownership does not impact the relationship between Dividend Policy and Firm Value. With Managerial Ownership serving as a moderating variable, managers act as agents who make decisions regarding the distribution and amount of dividends.

For future research, it is advisable to enhance the scope of this study by incorporating additional variables that have an impact on Firm Value, thereby constructing a more comprehensive regression model. Variables like company size, sales growth, transparency, and others should be considered for inclusion. Additionally, investigating the potential influence of other moderating variables such as institutional ownership, foreign ownership, and more could offer deeper insights.

Expanding the research to encompass other stock indices like LQ45, IDX High Dividend 20, SRI-KEHAT Index, and other indices published by the Indonesia Stock Exchange would enrich the study's applicability and generalizability. Furthermore, extending the research to cover a longer time period may yield more comprehensive and robust results, offering a more profound understanding of the relationships examined.

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