
The Effect of Profitability and Leverage on Firm Value with Dividend Policy as Moderating Variable: Cases on Lq-45 Listed Company

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Abstract

The main purpose of a company is to maximize the investors' prosperity, which can be reached by maximizing the firm value. However, a company sometimes fails to increase the firm value, which one of the causes is the company's inaccuracy in applying factors that affect the company's value. It leads to poor company performance in the point of view of investors. The aims of this research are to proof and to analyze the influence of profitability, leverage, and size of company towards the firm value. Additionally, it also aims to proof and to analyze the dividend policy, that is able to moderate the correlation between profitability and leverage towards the firm value. The population of this study is several companies listed in the LQ45 index on the Indonesia Stock Exchange. The sampling technique used was purposive sampling method, which amounted to 25 companies so that the panel data produced was 75 samples. Data analysis method was descriptive analysis with Eviews tool. The results showed that profitability and leverage had a positive and significant effect on the company's value. Dividend policy is able to moderate the effects of profitability and leverage on the company's value. Meanwhile, the company size as a control variable has a negative and not significant effect on the firm value.

Keywords: profitability, leverage, dividend policy, firm value

1. Introduction

Financial managers have an obligation to increase the firm value or the prosperity of the owner. In other words, they have an obligation to increase the firm value (Brigham, 2018). According to Subramanyam (2017), the higher the share price, the higher the firm value. High firm value is the desire of the company owners because it shows the higher welfare of the shareholders.

There are some factors affecting the firm value. According to Subramanyam (2017), those factors are sales growth, leverage, and profitability. However, this research will discuss there are only three factors affecting the firm value, namely profitability, leverage, and firm size, as well as dividend policy as moderation variable.

There are some factors that can increase the firm value, namely profitability, capital structure, dividend policy, and firm growth. Profitability can directly affect the potential investors to invest to the company. According to Mardiyati (2012), a company, to run its operation, should be in a

situation that can make profit. Without profit, it will be difficult for a company to get the capital from investors. A company with a high level of profitability will be more attractive for investors to buy shares of the company. Thus, profitability can affect the firm value. Research conducted by Kellen (2011), Meilani (2014), and Ngurah (2017) shows that profitability has a significant positive effect on firm value. This means that the higher the value of profits obtained by the company, the higher the firm value. It is because the high profit will give an indication of good company prospect, leading to trigger investors to participate in increasing demand for shares. As the share demand increases, the firm value increases. However, the research conducted by Khoiruddin (2015) and Rahmantio (2018) shows different conclusion. In the research, it is found that return on assets did not have a significant effect on the firm value.

Meanwhile, leverage is related to the ability of a company in returning its debt. In fulfilling the company's funding needs, company managers must take the best funding decisions from both internal and external companies. The company's external funding sources obtained from debt will result in capital costs in the form of interest. Meanwhile, the use of internal funding sources will result in opportunity cost of own capital. Companies that are able to return their debt properly will increase investor trust to the company, so its value will increase in the eyes of the investors. Therefore, it is necessary to have a policy for determining the need of company funds, whether it will be from internal or external capital, as stated by Husnan (2012). This statement is supported by research conducted by Chandra (2017) and Paminto (2016) stating that debt equity ratio has a positive and significant effect on the firm value. However, the results of research conducted by Mardiyati (2012), Wijaya (2017), and Meilani (2014) show that leverage do not affect the firm value.

Besides the factors stated above, which become the consideration for investors in value the company, there is another factor, namely dividend policy. Dividend is a compensation received by shareholders, in addition to capital gain (Mamduh, 2013). In this study, dividend policy is used as a moderation variable because it is the center of attention of many parties such as creditors, shareholders, and other external parties, that have an interest in the information from the company. Dividend policy is related to the use of profit, the rights of shareholders. Basically, profit can be divided as dividend or retained to be reinvested in the company by considering the company's goals, namely maximizing the prosperity of shareholders and increasing the firm value.

The high use of debt by a company can reduce conflicts between managers and shareholders. It may be caused by the addition of debt that will require commitment to pay interest and principal loans to reduce free cash flow and to minimize the manager's power to take extravagant actions, leading them to be more disciplined, so the use of company resources will be more productive.

Shareholders desire dividend payments so that management does not take too much cash because they tend to enjoy the cash for their own interests. With dividend payment desired by the shareholder, opportunity for the managers to invest using cash will be reduced. To maintain cash flow in the future, the company needs to increase the use of debt. Thus, investors will consider the company concerns to the welfare of the shareholders. It triggers the potential investors to buy the company's shares, resulting in the increasing firm value.

The previous research has been examined and developed several models to see the dividend policy as a moderation variable related to the factors affecting the firm value, such as profitability and leverage, and there are different research results. Researchers conducted by Martini (2015), Erlangga (2009), and Fadli (2015) show that dividend policy can strengthen the effects of profitability towards the firm value. However, the result is different from another research conducted by Mahendra (2012), showing that dividend policy is not able to strengthen the effects of profitability toward the firm value. Research conducted by Martini (2015) shows that dividend policy can moderate the effects of leverage toward the firm value. However, research done by Mahendra (2012) and Nanggola dan Istiadi (2014) state that dividend policy is not able to moderate the effects of leverage toward the firm value.

This research uses data from Company LQ45 as a research object because the issuer company that is included in index group LQ45 is a company that has actively traded shares that become superior shares. This research also has uniqueness because it uses dividend policy as moderation variable, and company size as a control variable.

2. Hypotheses and research framework

Profitability and Firm value

Investors do an overview of a company by looking at financial ratio as an investment evaluation tool because financial ratio reflects the high and the low firm value. If investors want to know how much the company generates a return on the investment they will invest, the thing they will see first is profitability ratio. Good profitability growth shows that the prospect of the company in the future can be considered more, meaning that the firm value is higher, according to the investor's point of view. If the company's ability to result profit increases, the share price will increase as well (Husnan, 2012). An increase in share prices shows a good firm value from the investors' point of view. Kellen (2011) and Meilani (2014) state that profitability has a positive effect on the firm value. Profitability is an indicator of a company with good performance, so investors tend to choose companies that have high profitability, hoping to provide dividend, which will increase share prices. Therefore, ROA is one of the factors that influence the value of the company. This statement is supported by research conducted by Ngurah (2017) and Monoarfa (2018) stating that ROA has a positive effect on the firm value.

H₁: Profitability has a significant positive effect on the firm value

Leverage and Firm value

Research conducted by Chandra (2017) shows that leverage has a positive and significant effect on the firm value. This is in line with signaling theory, the use of debt means that the company could pay off its debt in the future, so it is considered a positive signal by the market. A company that decides to use debt will be able to reduce taxes because the costs incurred by the company will be used to pay loan interest. Tax reduction will increase profit, so the funds will be allocated to dividend and reinvestment. A company that reinvests or can distribute high dividend to investors will be responded positively so that market valuation increases, resulting in the rising share prices. Thus, the use of debt is interpreted as a positive signal from the company to investors to increase the firm value. This statement is supported by research conducted by

Paminto (2016) showing that debt equity ratio has a positive and significant effect on the firm value.

H₂: Leverage has a significant positive effect on the firm value

Profitability and Firm Value moderated by Dividend Policy

Profitability ratio indicates the effectiveness of a firm management. It can be seen from the profit obtained from sales and investment income. The higher the profit gained by a company, the higher the interest of the investors to buy shares of the company, which will ultimately increase demand for shares, (Mamduh, 2013). As the share demand increases, the price of the share's increases. High share price reflects the high firm value. This effect is strengthened by the policies implemented by dividend companies. Based on signaling theory, by Mamduh (2013), markets will interpret dividend payment as a signal about the company's bright future prospect. With the increase of dividend payments to shareholders, investors will predict that the profit obtained by the company will continue or even better in the future. The better prospect of a company will make it be considered profitable by investors. As a result, investors will be interested in buying the company's shares, leading to the increase of demand for the company's shares. This can increase the share price of a company. The high price of shares reflects the high firm value. This statement is strengthened by the research result conducted by Erlangga (2009) and Fadli (2015), stating that dividend policy will strengthen the effect of profitability on the firm value.

H₃: Dividend policy strengthens the effect of profitability on the firm value

Leverage and Firm Value Moderated Dividend Policy

Based on agency theory by Mamduh (2013), the high use of debt by a company can reduce conflict between managers and shareholders. Additional debt requires commitment to pay interest and principal loans that will reduce free cash flow and will be able to reduce managers to take extravagant actions, to make the managers more disciplined, so the use of a company's resources can be more productive. Based on signaling theory by Mamduh (2013), additional debt will be a good prospect in the future that gives a positive signal to investors, assuming that the future's cash flows will be maintained. This will increase demand for shares by investors, leading to increase the share price and the firm value. This explanation is supported by dividend policy. Shareholders desire dividend payments so that management does not hold too much cash that makes them tend to enjoy the cash for their own interest.

With the dividend payment desired by shareholders, the opportunity of managers to invest with cash is reduced. To be able to maintain cash flow in the future, a company needs to increase the use of debt. Thus, investors assume that the company pays attention to the prosperity of shareholders. This will trigger investors to buy shares of the company. High share demand will increase share price. High share price reflects the high firm value. It is supported by research conducted by Martini (2015) stating that dividend policy can strengthen the effect of debt policy on the firm value.

H₄: Dividend Policy strengthens the effect of leverage on the firm value

3. Method

Population and Sample

Population in this study was companies listed on tLQ-45 index. The samples were companies always included in LQ-45 list during the observation period. This research observed 3-year record (2015-2017) and came with 25 companies as samples.

Research Variable

This research uses one variable consisting of dependent variable, namely the firm value, measured by the price to book value ratio (PBV); two independent variables consisting of profitability (ROA); leverage (DER) one moderation variable, namely dividend policy (DPR); and one control variable, namely the company size, measured by loans from the total assets (SZ). The following are research variables and its measurement.

Table 1: Variable and Measurement

No	Variable	Notation	Measurement
1	Firm value	PBV	Stock price per share/Book value per share
2	Dividend policy	DPR	Dividend per share/Earning per share
3	Profitability	ROA	EAT/Total Assets
4	Leverage	DER	Total Debt/Total Equity
5	Firm size	SZ	Ln Total Assets

Data Analysis

This study uses two regression analyzes, namely multiple regression and moderation regression analysis. Regression analysis aims to measure the strength of the correlation between two or more variables and to show the direction of the correlation between independent variable and dependent variable used in a study. This research selects the panel data because this study uses a span of several years and many companies. First, the use of time series data is due to the fact that this research uses a span of three years, from 2015-2017. This research uses software analysis Eviews to estimate the regression model.

This research uses panel data. Panel data is a combination of time series data and cross section data. According to Widarjono (2013), there are several benefits obtained by using panel data. First, it can provide more data so that it will result a greater degree of freedom. Second, information from the combined time series data and cross section will solve problems when there are omitted variables. Third, using panel data will be free from autocorrelation issues. In the regression model, estimation method using panel data can be done through three models, namely the common effect model, fixed effect model, and random effect model.

The best model will be chosen by using the testing step. The first step is the Chow test, which is a test in determining the most appropriate model used for estimating panel data between common effect or fixed effect models, this test is performed with software Eviews. The second step is Hausman test, which is used to choose whether the fixed effect model or the random effect

model is the best or the most suitable one. The Fixed Effect Model (FEM) assumes that the constant slope but the intercept varies between individuals.

4. Results

Descriptive statistics

Based on statistical testing, there were 25 companies used as samples, with three-year record from 2015 to 2017. The descriptive data analysis is provided below:

Include in these subsections the information essential to comprehend and replicate the study. Insufficient detail leaves the reader with questions; too much detail burdens the reader with irrelevant information. Consider using appendices and/or a supplemental website for more detailed information.

Table 2: Statistics Descriptive

	PBV	ROA	DER	SZ	DPR
Mean	6,28	10,17	220,04	31,71	43,35
Maximum	82,44	45,79	1.139,58	34,66	138,55
Minimum	0,36	1,08	15,35	28,99	3,65
Std. Dev	13,5	10,79	225,17	1,53	27,15
Observations (N)	75	75	75	75	75

Source: Data processed by E-views

The firm value as measured by the price to book value ratio has an average value of 6.28, meaning that the average share price is 6 times the book value, with the lowest value of 0.36 and the highest value of 82.44. The profitability (ROA) of the sample company is quite high, which is at an average of 10.17% with a minimum value of 1.08%. The mean or the average variable return on assets is 10.17, with a standard and a maximum value of 45.79%.

Leverage (DER) shows the amount of debt owned by the company compared to its own capital has a very high average, namely 2.2 times, with a minimum value of 0.15 times, and the maximum of 11.39x. Meanwhile, the dividend policy (DPR) has an average value of 43.35%, meaning that the dividend paid is very high, with a minimum value of 3.65% and a maximum value of 138.55%.

Model testing

Chow test

In the estimation method of regression model using panel data can be done through three models, namely the common effect model, fixed effect model and random effect model. To choose which model is the most appropriate to use in managing panel data, it is necessary to use tests called Chow test and Hausman test. In this study, there are two models. Model I determine the model of the effect of profitability, leverage, and company size on the firm value. Model II determines the model of the effect of dividend policy in moderating profitability and leverage on the firm value.

If the significance level <0.05 , it is better to use the fixed effect model. Conversely, if > 0.05 , it is better to use the common effect model. The test results of Model I are as follows:

Table 3: Result of Chow test Model I

<i>Redundant : Fixed Effects Test</i>			
<i>Equation : Untitled</i>			
<i>Test cross-section fixed effects</i>			
Effects Test	Statistic	d.f	Prob.
Cross-section F	6.958.657	-24,47	0.0000
Cross-section Chi-square	11.368.985	24	0.0000

Source: Data processed by e-views

In the table above, the redundant fixed effect shows a significance value of 0,000, which is less than 0.05, so it can be concluded that in model I, it is more appropriate to use the fixed effect model.

Meanwhile, in Model II examines the effect of dividend policy in moderating profitability and leverage on the firm value, and the results the chow test are as follow:

Table: 4: Result of Chow test Model II

<i>Redundant : Fixed Effects Test</i>			
<i>Equation : Untitled</i>			
<i>Test cross-section fixed effects</i>			
Effects Test	Statistic	d.f	Prob.
Cross-section F	2.197.049	-24,44	0.0116
Cross-section Chi-square	59.079.416	24	0.0001

Source: Data processed by e-views

The table above shows a significance value of 0.0001, which is smaller than 0.05, so it can be concluded that in model II, it is more appropriate to use the fixed effect model.

Based on the results of Chow Model I and Model II, it can be concluded that the fixed effect model is more appropriate to use. Therefore, further testing that must be done is the Hausman test. The following are the results of the Hausman test.

Hausman Test

Hausman test is done to choose whether the fixed effect model (FE) or the random effect model (RE) is the best one to use. In this test, a fixed effect model is selected if its significance value is <0.05 . Conversely, if the result is > 0.05 , random effect is selected. The results of the Hausman model I test are as follow:

Table 5: Result of Hausman test Model I

Correlated Random Effects - Hausman Test			
Equation: Untitled	Test cross-section fixed effects		
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2.589.689	3	0.4593

Source: Data processed by e-views

In the table above, the value of significance of 0.4593, which is greater than 0.05, so that it can be concluded that in model I, it is more appropriate to use the random effect model.

Whereas Model II examines the effect of dividend policy in moderating profitability and leverage on the firm value, and the results of the chow test are as follow:

Table 6: Result of Hausman test Model II

Correlated Random Effects - Hausman Test			
Equation: Untitled	Test cross-section fixed effects		
Test Summary	Chi-Sq. Stastitic	Chi-Sq. d.f.	Prob.
Cross-section random	827.541	6	0.2186

Source: Data processed by e-views

The table above shows a significance value of 0.2186 greater than 0.05 so it can be concluded that in model II it is more appropriate to use the random effect model.

Based on the results of the Hausman test model I and model II, it can be concluded that the random effect model is better used. Thus, in this research, the random effect model will be used.

Results of Model Testing

Based on the results of the model testing that has been done, it can be concluded that for Model I (the effect of profitability, leverage, and company size on the firm value) and for Model II (the effect of dividend policy in moderating profitability and leverage on the firm value), the random effect model is chosen (RE). The output from the regression using RE model is as follows:

Partial Hypothesis Testing (T-test)

T-test aims to find out which variables affect the dependent variable. Hypothesis testing partially uses the t-test, which is done by looking at the level of significance, with the level of error in this study of 5%. If the prob sig value is <0.05, there is effect, and if the sig value is > 0.05, there is no effect. The interpretation of the results of t-test is seen Table 7 below.

Table 7: Best Regression *Random Effect* (REM) Model I

Dependent Variable	: PBV			
Method	: Panel EGLS (Cross-section random effects)			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.804.373	4.322.109	0.111158	0.9118
ROA	0.991165	0.154081	6.432.756	0.0000
DER	0.01464	0.007126	2.054.526	0.0436
SIZE	-0.372683	1.362.873	-0.273454	0.7853
Adjusted R-Squared	0.42365			
Prob(F-statistic)	0.00000			

Source: Data processed by e-views

Based on the table, the effect of this test obtains the significance of the probability value on the Return on Assets (ROA) variable of 0.0000, which is smaller than the significance value of 0.05 or 0.0000 value <0.05 . Based on this result, it can be concluded that Return on Assets (ROA) has a significant effect on the firm value.

The effect on this test obtains the significance value of the variable Debt to Equity Ratio (DER) of 0.0436, which is smaller than a significant value of 0.05 or a value of $0.0436 < 0.05$. Based on this result, it can be stated that Debt to Equity Ratio (DER) has a significant effect on the firm value.

The effect on this test obtains a significance value of probability on the company size variable of 0.7853, which is greater than a significant value of 0.05 or value of $0.7853 > 0.05$. Based on this result, it can be said that the company size has no significant effect on the firm value.

Model Testing of Moderated Regression Analysis (MRA)

This test is to determine the effect of dividend policy (DPR) in moderating the correlation between profitability (ROA) and leverage (DER) on the firm value. The interpretation of the moderation test results can be seen in the following table.

Table 8: Best Regression *Random Effect* (REM) Model II

Dependent Variable	: PBV			
Method	: Panel EGLS (Cross-section random effects)			
Periods included	: 5			
Cross-sections included	: 25			
Total panel (balanced) observations	: 75			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.522.186	2.840.417	1.264.549	0.2192
ROA	-0.628233	0.283477	-2.216.169	0.0300
DER	-0.016871	0.00665	-2.536.983	0.0135
DPR	-0.200965	0.049383	-4.069.553	0.0001
SIZE	-0.904407	0.903618	-1.000.874	0.3204
ROA*DPR	0.0196	0.003899	5.026.488	0.0000
DER*DPR	0.00086	0.000224	3.839.386	0.0003
R-squared	0.773432			
Adjusted R-Squared	0.753440			
F-statistic	38.688.380			
Prob(F-statistic)	0.000000			

Source: Data processed by e-views

Based on the table, the significance of the ROA*DPR variable is 0.0000, which is smaller than the significance level determined 0.05, so it can be concluded that the dividend policy (DPR) as a moderating variable can strengthen the correlation between profitability and the firm value.

Likewise, the DER*DPR variable produces a significance value of 0.0003, which is smaller than 0.05 value. Based on the results obtained, it can be concluded that the dividend policy (DPR) as a moderating variable can strengthen the correlation between leverage (DER) and the firm value.

Among the four hypotheses proposed, after testing the hypothesis, it turns out that all variables are accepted (supported). It can be seen clearly in the table below:

Table 9: Summary of Hypothesis test

Hypothesis	Description	Result
H ₁	Profitability has a positive on the firm value	Accepted
H ₂	Leverage Dividend has a positive on the firm value	Accepted
H ₃	Dividend Policy strengthens the effect of profitability on the firm value	Accepted
H ₄	Dividend Policy strengthens the effect of leverage on the firm value	Accepted

5. Discussion

Profitability and Firm value

The results of this study indicate that profitability has a positive and significant effect on the firm value. Investors do an overview of a company by looking at financial ratio as an investment evaluation tool because financial ratio can reflect the high or the low firm values. If investors want to know how much the company gains a return on investment that they will invest in, the first thing to look at is profitability ratio. Good profitability growth means the company's future prospect is considered good, meaning that the firm value is better from the investor's perspective. If the company's ability to gain profit increases, the share price will also increase (Husnan, 2012). The increase in share price will reflect good firm value from the point of view of investors. Meilani (2014) argues that the value of shareholders will increase if the firm value increases. This is indicated by the high rate of return on investment to shareholders.

Return on investment to shareholders depends on profit gained by the company. The high level of profit generated by the company means the prospect of the company to carry out its operations in the future is also high. Thus, the firm value that is reflected in the company's share price will also increase. Therefore, ROA is one of the factors that influence the firm value. The results of this study are supported by researches conducted by Ngurah (2017) and Monoarfa (2018) stating that return on assets have a significant positive effect on the firm value. However, researches by Khoiruddin (2015) and Rahmantio (2018) provide different conclusions. In those studies, it is found that return on assets has no significant effect on the firm value.

Leverage and Firm value

The results of this study indicate that leverage has a positive and significant effect on the firm value. This is in accordance with the signaling theory, the use of debt means that—according to the investors—the company has the ability to pay off its debt in the future so that it is considered a positive signal by the market. A company that decides to use debt will be able to reduce taxes because the costs incurred by the company will be used to pay interest on the loan. Tax reduction will increase profits, so the funds will be allocated to dividend and reinvestment. A company that reinvests or is able to distribute high dividends to investors will be responded positively so that market valuation increases, which will affect the rising share prices. Thus, the use of debt is interpreted as a positive signal from the company to investors in order to increase the firm value. The results of this study are supported by research conducted by Paminto (2016) and Devianasari

(2015) stating that the debt equity ratio has a positive and significant effect on the firm value. This study contradicts Mardiyati (2012) and Meilani (2014) stating that the debt equity ratio has no significant effect on the firm value.

Profitability and Firm Value Moderated by Dividend Policy

The results of the study indicate that dividend policy is able to moderate the effect of profitability on the firm value. Profitability ratio indicates the effectiveness of a company management. This is indicated by the profit that can be gained from sales and investment income. The higher the profits gained by a company, the more the investors interested in buying shares of the company, which will ultimately increase demand for shares (Mamduh, 2013). With the increasing share demand, the price of these shares can increase as well.

High share price reflects the high firm value. This influence is strengthened by the policies implemented by the company. Based on signaling theory, Mamduh (2013), it is stated that the market will interpret dividend payments as a signal about the company's bright future prospect. With the increasing dividend payments to shareholders, investors will predict the profits that have been gained by the company will continue or even better in the future. With the better prospects of a company, the company will be considered profitable in the point of view of investors. As a result, investors will be interested in buying company shares that will increase demand for company share. This will be able to increase a company's share price. The high share price illustrates the high firm value. The results of this study are strengthened by the results of research conducted by Erlangga (2009) and Fadli (2015) stating that dividend policy can strengthen the effect of profitability on the firm value. Differ from research by Mahendra (2012) and Putu (2017) which states that dividend policy cannot moderate the effect of profitability on the firm value.

Leverage and Firm value moderated by Dividend Policy

The results show that dividend policy is able to moderate the effect of leverage on the firm value. Based on agency theory, the high use of debt by the company can reduce conflicts between managers and shareholders. Additional debt requires a commitment to pay interest and principal loans that will reduce free cash flow and to minimize the managers to take extravagant actions to make them more disciplined, so the use of a company's resources can be more productive.

Based on Mamduh's signaling theory (2013), additional debt will be a good prospect in the future so that it will give a positive signal to investors, assuming that future cash flows will be maintained. This will increase the demand for shares by investors, so it will increase the share price and the firm value. This explanation is reinforced by the dividend policy. Shareholders desire dividend payment, so the management does not hold too much cash that makes them tend to enjoy the cash for their own interests. With the payment of dividends desired by shareholders, the opportunity for the managers to invest with cash is reduced. For companies to be able to maintain cash flow in the future, companies need to increase the use of debt. Thus, investors assume that the company pays attention to the prosperity of its shareholders. This will trigger investors to buy shares of the company. High share demand will increase share price. High share price reflects the high firm value. It is supported by research of Martini (2015) and Putu (2017) stating that dividend policy can moderate the effect of leverage on the firm value. However, this

result is contrary to research conducted by Mahendra (2012) and Nanggola and Isttiadi (2014) which state that Dividend policy is not able to moderate the effect of leverage on the firm value.

6. Conclusion and Recommendation

Model II in this study uses the Random Effect Model (REM) approach, which is to find the effect of dividend policy in moderating the effect of profitability and leverage on the firm value. The following are the conclusions of the results of research from panel data processing according to the formulation of the problem, namely:

Profitability (ROA) and leverage have a positive and significant effect on the value of companies listed on the LQ45 index. Dividend policy (DPR) strengthens the effect of profitability (ROA) on the value of companies listed on the LQ45 index. Dividend policy (DPR) also strengthens the effect of leverage (DER) on the value of companies listed on LQ45 index.

It is expected that the results of the study can be used by company management to increase the firm value by considering dividend policy because it will strengthen the effect of profitability and leverage on firm value. Investors are expected to do an investment by always looking at the company's financial performance, especially dividend policy. Thus, the next researcher can develop this topic by adding other variables that have not been examined in this study.

References

- Abdullah, Ma'ruf. (2015). *Metodologi Penelitian Kuantitatif*. Yogyakarta: Aswaja Pressindo.
- Adi. (2018). The Effect of Capital Structure, Dividend Policy, Firm Size, Profitability and Liquidity on Firm Value (Study at Manufacturing Companies Listed on Indonesia Stock Exchange 2014-2016), *International Journal of Economics, Commerce and Management*, Vol. VI, Issue 6, ISSN 2348 0386.
- Agus, C. (2013). Analisis Pengaruh Debt to Equity Ratio, Return on Asset, dan Current Ratio Terhadap Dividend Payout Ratio dan Dampaknya Pada Nilai Perusahaan (Studi Pada Industri Manufaktur di Bursa Efek Indonesia Periode Tahun 2010-2012), *Jurnal Bisnis Strategi*, Vol. 22 No. 2.
- Ayu, Mertha. (2017). Pengaruh Profitabilitas, Ukuran Perusahaan dan Pertumbuhan Aset Terhadap Struktur Modal dan Nilai Perusahaan, *E-Jurnal Manajemen Unud*, Vol. 6 (4), ISSN 2302-8912.
- Brigham, Eugene F, & Joel F. Houtson. (2018). *Dasar – Dasar Manajemen Keuangan*. Edisi 14, Jakarta: Salemba Empat.
- Budagaga. (2017). Dividend Payment and its Impact on the Value of Firms Listed on Istanbul Stock Exchange: A Residual Income Approach, *International Journal of Economics and Financial Issues*, Vol. 7(2), 370-376, ISSN: 2146-4.
- Chandra. (2017). The Effect of Capital Structure, Profitability and Dividend Policy on Intrinsic Value of Firm, *Journal of Finance and Accounting*, ISSN 2222-1697, Vol. 8, No. 14.

- Devianasari, Suryantini. (2015). Pengaruh Price Earning Ratio, Debt to Equity Ratio dan Dividend Payout Ratio Terhadap Nilai Perusahaan, E-jurnal Manajemen Unud, Vol. 4 (11), ISSN 2302-8912.
- Erlangga. (2009) Pengaruh Kinerja Keuangan Terhadap Nilai Perusahaan Dengan Pengungkapan CSR, Good Corporate Governance dan Kebijakan Dividen Sebagai Variable Pemoderasi, Jurnal Akuntansi Dan Investasi, 10 (1).
- Fadli, Muhammad. (2015). Pengaruh Likuiditas, Solvabilitas, dan Profitabilitas terhadap Nilai Perusahaan dengan Kebijakan Dividen sebagai Variable Moderasi pada Perusahaan Perbankan, Asuransi dan Lembaga Keuangan lainnya di BEI Tahun 2010-2013. JOM FEKON Vol.2 No.2.
- Gujarati, Damodar N. (2003). Basic Econometrics. 4th ed. Singapore: Mc-Graw Hill.
- Gusti, Bagus. (2016). Pengaruh Ukuran Perusahaan dan Leverage Terhadap Nilai Perusahaan Dengan Kebijakan Dividen Sebagai Variable Mediasi, Vol. 5 (2), ISSN 2302-8912.
- Hanafi, mamduh. (2013). Manajemen Keuangan, Edisi 1, Yogyakarta: BPF.
- Husnan, Saud dan Enny Pudjiastuti, (2012). Dasar – Dasar Manajemen Keuangan. Edisi Enam. Yogyakarta: UPP STIM YKPN.
- Indriyani, Eka. (2017). Pengaruh Ukuran Perusahaan dan Profitabilitas Terhadap Nilai Perusahaan, Jurnal Ilmu Akuntansi, Vol. 10 (2), ISSN 1979-858X.
- Kellen, Pius Bumi. 2011. Struktur Kepemilikan, Profitabilitas, Ddn Risiko Perusahaan Terhadap Struktur Modal dan Nilai Perusahaan. Jurnal Keuangan dan Perbankan, Vol.15, No.1. 201–212
- Khoiruddin & Alfianti. (2015). Penentu Nilai Perusahaan Penerbit Efek Syariah, Jurnal Administrasi Bisnis.
- Lestari & Budi. (2016). Pengaruh Profitabilitas dan Kebijakan Dividen Terhadap Nilai Perusahaan Pada Perusahaan Perbankan yang Terdaftar di BEI Tahun 2006 – 2010, Jurnal CKI On SPOT, Vol. 9, No. 1, ISSN 1979-7044.
- Mahendra Dj, A., Sri Artini, L. G., & Suarjaya, A. A., (2012). Pengaruh Kinerja Keuangan Terhadap Nilai Perusahaan Pada Perusahaan Manufaktur di Bursa Efek Indonesia. Jurnal Manajemen, Strategi Bisnis Dan Kewirausahaan, 6(2).
- Mardiyati & Nazir. (2012). Pengaruh Kebijakan Dividen, Kebijakan Hutang dan Profitabilitas Terhadap Nilai Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2005-2010, Jurnal Riset Manajemen Sains Indonesia (JRMSI), Vol. 3, No. 1
- Martini, P. D., (2015), Pengaruh Kebijakan Utang dan Profitabilitas Terhadap Nilai Perusahaan: Kebijakan Dividen Sebagai Variable Pemoderasi, Jurnal Ilmu & Riset Akuntansi, 3(2).

- Meilani. (2014). Pengaruh Dividend Payout Ratio (DPR), Debt Equity Ratio (DER), Return on Assets (ROA), dan Size Perusahaan Terhadap Nilai Perusahaan Pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2009-2012, *Journal of Economics*.
- Monoarfa. (2018). The Role of Profitability in Mediating the Effect of Dividend Policy and Firm Size on Firm Value, *Journal of Business and Management Studies*, Vol. 4, No. 2; ISSN: 2374-5916, E-ISSN: 2374-5924.
- Nachrowi D Nachrowi. (2006). *Ekonometrika untuk Analisis Ekonomi dan Keuangan*, Cetakan Pertama, Jakarta: Lembaga Penerbit FE UI.
- Nazar., Umair & Rizwan. (2016). Factors Affecting the Firm Dividend Policy: An Empirical Evidence from Textile Sector of Pakistan, *International Journal of Advanced Scientific Research and Management*, Vol. 1 Issue 5, ISSN 2455-6378.
- Ngurah, Merta. (2016). Pengaruh Ukuran Perusahaan, Leverage dan Profitabilitas Terhadap Nilai Perusahaan, *E-Jurnal Manajemen Unud*, Vol. 5 (7), ISSN 2302-8912.
- Ngurah, Vivi. (2017). Pengaruh Kebijakan Dividen, Likuiditas, Profitabilitas dan Ukuran Perusahaan Terhadap Nilai Perusahaan, *E-Jurnal Manajemen Unud*, Vol. 5, No.7, 4044 - 4070, ISSN: 2302-8912.
- Paminto., Setyadi & Sinaga. (2016). The Effect of Capital Structure, Firm Growth and Dividend Policy on Profitability and Firm Value of the Oil Palm Plantation Companies in Indonesia *European Journal of Business and Management*, Vol.8, No.33, ISSN 2222-1905.
- Purwohandoko. (2017). The Influence of Firm's Size, Growth, and Profitability on Firm Value with Capital Structure as the Mediator: A Study on the Agricultural Firms Listed in the Indonesian Stock Exchange, *International Journal of Economics and Finance*; Vol. 9, No. 8, ISSN 1916-971X, E-ISSN 1916-9728.
- Putu, Mertha. (2017). Pengaruh Kebijakan Hutang dan Profitabilitas Pada Nilai Perusahaan Dengan Kebijakan dividen sebagai Variable Pemoderasi, *E-Jurnal Akutansi*, Vol. 20 (2), ISSN 2302-8556.
- Qomariah, Nurul. 2015. The Effect of Corporate Social Responsibility, Size and Profitability Toward on The Value of Corporate (Studies in Manufacturing Companies Listed in Indonesia Stock Exchange). *IOSR Journal of Management and Bussiness*. Vol.17, e-ISSN: 2278-487X, p-ISSN: 2319-7668.
- Rahmantio., Saifi & Nurlaily. (2018). Pengaruh Debt to Equity Ratio, Return on Equity, Return on Assets dan Ukuran Perusahaan Terhadap Nilai Perusahaan, *Jurnal Administrasi Bisnis (JAB)*, 57 (1)

- Rehman. (2016). Impact of Capital Structure and Dividend Policy on Firm Value, Journal of Poverty, Investment and Development, Vol.21, ISSN 2422-846X.
- Subramanyam. (2017). Analisis Laporan Keuangan. Edisi 11, Jakarta: Salemba Empat.
- Sugiarto. (2016). Metodologi PenelitianBisni. Yogyakarta: Penerbit Andi.
- Sugiyono. (2017). Metode Penelitian Bisnis. Bandung: Alfabeta
- Widarjono, Agus. (2013). Ekonometrika Pengantar dan Aplikasinya. Yogyakarta. UPP STIM YKPN.
- Widiasatari, Wirawan. (2018). Pengaruh Profitabilitas, Free Cash Flow dan Ukuran Perusahaan pada Nilai Perusahaan, E-Jurnal Akutansi, Vol. 23 (2), ISSN 2302-8556.
- Wijaya Z, Rico. 2017. Kinerja Keuangan dan Ukuran Perusahaan terhadap Harga Saham dengan Kebijakan Dividen sebagai Variable Intervening. Jurnal Keuangan dan Perbankan, Vol 21(3): 459–472