THE MODERATION ROLE OF TAX PLANNING ON THE EFFECT OF DIVIDEND POLICY AND ENVIRONMENTAL COST ON FIRM VALUE

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Abstract *– The purpose of this study is to examine the moderating role of tax planning on influence dividend policy and environmental costs on firm value. The research used a quantitative approach with a moderated regression model. The population is mining companies listed on the Indonesia Stock Exchange (IDX) in 2017-2022. Authors used purposive sampling method, in order to obtain 58 mining company annual financial report data. Moderated Regression Analysis to analyze data. The results of this study are dividend policy has no effect on firm value, environmental costs have an effect on firm value, tax planning cannot moderate the effect of dividend policy and environmental costs on firm value, tax planning is proven to be an independent variable that can affect the firm value. The urgency of research is that mining companies are a sector that has a major impact on the environment, so it is necessary to budget for environmental improvement. Thus, it is important to examine the impact of environmental costs on company value, especially the mining sector. References regarding the influence between variables and moderating role of tax planning like this study are still limited, so it is hoped that these results will serve as a preliminary reference.*

Keywords: Dividend Policy, Environmental Costs, Firm Value, Tax Planning

I. INTRODUCTION

The company is a place of economic activity carried out to produce goods and services with the aim of making a profit. Basically, the company has a goal to gain profits and welfare of investors through increasing the firm value. The value of a company is the selling price considered adequate by prospective shareholders.

The existing phenomenon is that the company PT Aneka Tambang Tbk has experienced a decrease in its share price. With this price drop, PT ANTAM almost got shut down by ARB (automatic rejection below). In January 2022 PT ANTAM experienced a decline in share price of Rp. 2,080 per share. The decline continued the next day until it reached Rp. 1,935 per share. The difference in the decline in PT Aneka Tambang's share price for 2 days is 145 (Ramadhani, 2022). Cases of weakening or decline in stock prices indicate the value of the company also fell. Things that are suspected as a determinant of firm value include dividend policy. Dividend policy, namely the distribution of profits obtained by the company to be given to shareholders. The policy to distribute dividends can be responded to by the market in the form of stock price reactions where stock prices are one of the elements for calculating firm value. Ovami & Nasution, (2020); Setyani, (2018) found that dividend policy can affect firm value. The opposite results are collected Rasudu & Sudaryanti, (2021); Jayanti, (2023) that dividend policy is not able to affect firm value.

Firm value, especially for mining companies, can also be formed from the company's concern for the environment which is manifested in the form of environmental costs. Environmental costs include the budget associated with limiting production activities that damage the environment. Apriandi et al., (2022); Suandi & Ruchjana, (2021) obtained the result that environmental costs affect firm value. Other results are archived by Okta et al., (2022); Rizki & Taufiq, (2019) that that environmental costs do not affect the value of the company.

Tax is a budget that must be paid by taxpayers to the state government and this can reduce company profits (Putri, 2019). The company tries to maximize the value of the business by optimizing the net profit, which is done by rationalizing the operating costs of the business, including the tax burden. Tax planning increases the value of the company if these activities can minimize tax costs so that the assumption of benefits is greater than costs. Hidayat & Pesudo, (2019) According to him, tax planning has a positive effect on firm value.

The research problem is formulated through the question whether tax planning can moderate the effect of dividend policy and environmental costs on firm value. The urgency of the research is that mining companies are a sector that has a major impact on the environment, so there is a need for a budget for environmental improvement. Therefore, it is important to examine the impact of environmental costs on firm value, particularly in the mining sector. Research on the impact of environmental costs on firm value is still limited, so it is hoped that these results can be used as an initial reference. The study of tax planning as a moderating variable on the effect of environmental costs on firm value is the novelty research. The results of this study can be the basis for companies to contribute more through environmental costs incurred. So, this can improve the company's image because it cares about the surrounding environment and will ultimately have an impact on increasing firm value.

II. METHODS

Signaling Theory

The signaling theory is a theory related to how a company distributes positive or negative signals to investors (Kohar & Akramunnas, 2017). The purpose of signaling theory is to increase the value of the company when selling shares.

Stakeholder Theory

This theory is strongly related with the form in which the companies manage the interests of the distintos stakeholders. In this case the company needs to consider the strength so that the firm value increases. Stakeholders have the right to the actions taken by the company's management to see the company's financial, environmental and social responsibility performance.

Firm Value

The firm value can be explained as the shareholder's perception of the company which is calculated based on its share price (Pradani & Aji, 2018). The value of this company is proxied using the PBV formula. Here is the company value formula:

$$PBV = \frac{\text{Price Per Share}}{\text{Book Value Per Share}}$$

Amaliyah & Herwiyanti, (2020)

Dividend Policy

Dividend policy is the company's decision to distribute dividends to investors or retained earnings for future investment costs (Fiorentina & Idayati, 2022). Dividend policy can be calculated using the DPR (Dividend Payout Ratio). The dividend policy is formulated as follows:

$$DPR = \frac{\text{Total Dividends}}{\text{Net Profit}}$$

Asril et al., (2021)

Environmental Costs

Environmental costs are a budget sacrifice that must be incurred by companies in order to preserve the company's environment (Wardhana, 2020). Environmental Costs can be calculated based on the environmental improvement budget issued by the business entity and net profit after tax. Environmental costs are formulated as follows:

$$Environmental\ cost\ ratio = \frac{\sum environmental\ costs}{earning\ after\ tax}$$

Hapsoro & Adyaksana, (2020)

Tax Planning

Tax planning is an activity carried out in order to reduce the amount of tax paid by companies to the state, so that the amount that must be deposited does not exceed the actual amount. This variable can be measured by the Effective Tax Rate (ETR), a type of research from (Oktaviani & Asyik, 2022). ETR can be calculated using the formula:

$$Effective\ Tax\ Rate\ (ETR) = \frac{Tax\ Expense}{earning\ before\ tax}$$

(Oktaviani & Asyik, 2022)

Population and Sample

The population of this study consists of mining companies listed on the Indonesian Stock Exchange in 2017-2022, with a total of 58 companies. In this study, the sample selection method used was purposive sampling and the sample consisted of 12 companies over a period of six years. Thus, there are 72 annual financial report data. After the normality test it is known that there are 14 data outliers so the data which can be processed for further testing is 58.

Variable Study

The variables in this study consist of independent variables, namely dividend policy (X1) and environmental costs (X2). The dependent variable is the business value (Y). As well as the moderating variable, namely budget planning (Z).

III. RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistics are used to analyze data that only describes the information collected without any universally applicable conclusions (Sugiyono, 2015).

Table 1. Descriptive Statistics

Variable	N	Min.	Max.	Means	Std. Dev.
LNX1	58	-3,08	0,79	-0,8443	0,91525
LNX2	58	-4,61	8,81	-1,6430	2,80643
LNZ	58	-2,41	-0,09	-1,2683	0,36624
LNY	58	-1,27	1,91	0,3413	0,65055

Source: Data processed, 2023

The results of the descriptive statistical test show that the data for the independent variable and the dependent variable are less varied because the mean value is less than the standard deviation value.

Classic Assumption Test

This hypothesis test is used to test the feasibility of the regression model in a study. The classic game test includes normality, heteroscedasticity, multicollinearity, and autocorrelation.

Normality Test

The normality test tests the variable regression model if the residuals can be normally distributed (Ghozali, 2018). The researchers used the Kolmogorov-Smirnov one-sample nonparametric (K-S) statistical test in this study.

Table 2. Normality Test

One-Sample Kolmogorov-Smirnov Test		
N		58
Normal Parameters [a,b]	Means	0,0000000
	std. Deviation	0,53537899
Most Extreme Differences	absolute	0,082
	Positive	0,076
	Negative	-0,082
Test Statistics		0,082
Asymp . Sig. (2-tailed)		0,200[c,d]

Source: Data processed, 2023

Based on Table 2 above, it can be seen that Asymp. sig 0.200. This value is greater than 0.05, so it can be concluded that the survey residuals are normally distributed.

Multicollinearity Test

The multicollinearity test was performed to verify if there is a relationship between the independent variables in the regression model.

Table 3. Multicollinearity Test

Variable	Collinearity Statistics		Information
	tolerance	VIF	
LNX1	0,932	1,073	Free Multicollinearity
LNX2	1,000	1,000	
LNZ	0,932	1,073	

Source: Data processed, 2023

Based on Table 3 above, it is shown that there is no question of multicollinearity. Because every independent variable has a tolerance value greater than 0.10 and a VIF value less than 10.

Autocorrelation Test

The purpose of the autocorrelation test is to determine whether there is a relationship between the residual error at period t and the error at period t-1 in the linear regression. One method to determine the presence of autocorrelation is to use the Durbin-Watson test.

Table 4. Autocorrelation Test

Model	dU	Durbin-Watson	44-dU	Information
1	1,6475	1,882	2,3525	Free of Autocorrelation

Source: Data processed, 2023

Based on table 4 above, there is no positive or negative autocorrelation because the dU value is less than D-W and the D-W value is less than 4 – dU (1,6475 < 1,881 < 2,3525).

Heteroscedasticity Test

The heteroscedasticity test allows us to know if there is a difference from one observation to another (Ghozali, 2018). In this study the testing method used the Glejser test.

Table 5. Heteroscedasticity Test

Variable	t	Sig.
(Constant)	1,616	0,112
LNX1	-1,353	0,182
LNX2	-1,141	0,259
LNZ	-0,249	0,805

Source: Data processed, 2023

Based on table 5 above, there is no heteroscedasticity because the significance values of X1, X2 and Z ≥ 0,05. After the regression model passes all classical assumption tests, it can be tested regression.

Analysis Multiple Linear Regression

Table 6. Multiple Linear Regression

Variable	Unstandardized Coefficients		Standardized Coefficients
	B	std. Error	Betas
(Constant)	0,219	0,112	
LNX1	0,078	0,083	0,109
LNX2	-0,114	0,027	-0,494

Source: Data processed, 2023

The multiple linear regression analysis in this study is formulated in the following equation:

Y = a + b1X1 + b2X2 + e

Y = 0,219 + 0,078X1 – 0,114X2 + 0,112

a. The dividend policy variable (X1) shows a regression coefficient of 0,078 which indicates the dividend policy variable has a positive effect on firm value.

b. The environmental cost variable shows a regression coefficient of -0.114 which indicates the environmental cost variable has a negative effect on firm value.

Coefficient of Determination

The coefficient of determination indicates how well the regression model can explain the variance of the dependent variable. The higher the R^2 value, the greater the ability of the independent variables to explain the effect of the dependent variable.

Table 7. Coefficient Test Determination

Model	R	R Square	Adjusted R Square
1	0,568	0,323	0,285

Source: Data processed, 2023

The coefficient of determination (R^2) has a value of 0,285. The independent variables, namely dividend policy and environmental costs, have an influence of 28,5% on company value. The remaining 71,5% is influenced by factors outside the model that are not identified in this study.

Regression Test

Table 8. Regression Test

Model		Unstandardized Coefficients		t	Sig.
		B	std. Error		
1	Constant	0,219	0,112	1,952	0,056
	LNX1	0,078	0,083	0,940	0,351
	LNX2	-0,114	0,027	-4,251	0,000
2	Constant	-0,333	0,266	-1,252	0,216
	LNX1	0,126	0,082	1,533	0,131
	LNX2	-0,114	0,026	-4,398	0,000
	LNZ	-0,468	0,206	-2,270	0,027
3	Constant	-0,353	0,296	-1,193	0,238
	LNX1	-0,020	0,281	-0,071	0,944
	LNX2	-0,128	0,056	-2,267	0,028
	LNZ	-0,467	0,281	-1,662	0,102
	Interaction X1Z	-0,121	0,218	-0,558	0,580
	Interaction X2Z	-3,960	0,000	-0,425	0,673

Source: Data processed, 2023

From the results in Table 8, the author can see that the dividend policy variable has a significance value of 0.351 greater than 0.05, which means that H1 has been rejected. Therefore, it can be concluded that the dividend policy has no influence on the value of the company. The results of this study are in line with Fiorentina & Idayati, (2022) and Amaliyah & Herwiyanti, (2020) that dividend policy has no effect on firm value. Because dividend policy is not the main source of investor welfare. Because dividend payments do not significantly affect the welfare of investors, the increase in firm value can be determined from the high profit earned. Dividend policy does not always provide a positive signal for shareholders. Because investors pay attention if the company is less sensitive to investment opportunities that benefit the company.

The variable environmental cost has a significant value of 0.000 less than 0.05, which means that **H2 is accepted**. Therefore, it can be concluded that environmental costs have a significant effect on the value of the firm. This study agrees with Arimbi & Mayangsari, (2022) and Pasaribu et al., (2023) stating that environmental costs have an influence on firm value. Because in order to get good environmental performance, a company must apply a sacrifice, namely in the form of an environmental budget. However, this form of business requires a large budget because the allocation of costs used to reduce environmental pollution generally depends on the performance of a company. If a company spends money to improve its environment, it can be a good sign for potential investors because it shows that the company has kept its commitments or cares about the environment. So that it can affect the firm value.

The interaction variable between dividend policy and tax planning gives significant results of 0.580 greater than 0.05, which means that **H3 is rejected**. Therefore, it can be concluded that tax planning is not able to moderate the effect of dividend policy on firm value. Dividend policy is not the most important thing in the prosperity of investors. Because increasing business value is indicated by high profits. Whatever the condition of the dividend policy is not the main factor that can increase the value of the company. This condition does not change when the company carries out tax planning. If tax planning is high, it can result in low corporate profits. So that it can cause the company's dividend payout to investors is also low.

The interaction variable between environmental costs and tax planning obtains a significant result of $0.673 \geq 0.05$ so that **H4 is rejected**. it can be concluded that tax planning is not able to moderate the effect of dividend policy on firm value. This can occur due to the inability of a company to properly allocate funds used for environmental costs. So that it will have an impact on the cessation of special costs that can be used for company operations. In the context of signaling theory, this can provide bad signal information for investors and will affect the value of stock prices that fall. Does corporate tax planning continue to incur environmental costs to repair the damage caused by business activities.

Based on the findings in table 8 equation 2 that tax planning is proven as an independent variable. Because it has a significance value of 0,027 less than 0,05. Tax planning can affect the firm value of. Authors found that the type of moderation that occurs is a predictor moderation.

IV. CONCLUSION

The research results show that the dividend policy has no effect on firm value; environmental costs affect the firm value; and tax planning cannot moderate the effect of dividend policy and environmental costs. Tax planning is only the independent variable.

Recommendation

Further researchers can expand the object of research, namely the real estate and property industry sub-sector, food and beverage companies, and other sectors. Future researchers can also add independent variables such as capital structure, profitability, environmental performance and other variables. The research results serve as a reference for investors in assessing the value of the company by involving the company's policies in a comprehensive manner in terms of dividends, the environment and taxes. Likewise, companies can be more aware of their environmental performance which will then be published in their environmental cost reporting, as well as being aware of their tax obligations.

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