

Revealing the Impact of Internal Factors and Corporate Social Responsibility Disclosure on Firm Value with Profitability Mediation

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Abstract:- This study aims to determine the effect of liquidity, capital structure, firm size and CSR disclosure on firm value with profitability as an intervening variable in oil palm plantation companies listed on the Indonesia Stock Exchange. This type of research is quantitative research with secondary data. The research sample consisted of 13 oil palm plantation companies listed on the Indonesia Stock Exchange in 2014-2021 and selected by purposive sampling. The method used in this research is regression analysis with path analysis with the help of SPSS 27 software. The results showed that liquidity, firm size and CSR disclosure had a positive and significant effect on profitability, capital structure had a negative and significant effect on profitability, profitability and capital structure had a positive and significant effect on firm value, liquidity, firm size and CSR disclosure had no effect on firm value, profitability was able to mediate the effect of liquidity and CSR disclosure on firm value, profitability was unable to mediate the effect of capital structure and firm size on firm value.

Keywords:- Liquidity; Capital Structure; Firm Size; CSR Disclosure; Profitability and Firm Value.

I. INTRODUCTION

Indonesia is the world's largest vegetable oil producer and exporter, with palm oil being the leading commodity. Indonesia's palm oil production volume continues to increase year after year, and data from the United States Department of Agriculture Foreign Agricultural Service (USDA FAS, 2022) shows that Indonesia has the highest consistent palm oil production and export volume compared to other countries from 2018/2019 to 2021/2022.

Although this achievement proves Indonesia's success in producing and exporting palm oil, there are some problems within the country. Recently, there has been a rise in domestic cooking oil prices that has even led to shortages. In response, the government implemented various policies, such as export restrictions, an export levy to subsidize cooking oil, and a domestic market obligation (DMO) that requires exporters to sell a portion of production to the domestic market. These policies have undergone continuous changes, including a change to a total export ban in April 2022 (USDA FAS, 2022).

In addition, the enterprise value of oil palm plantations in Indonesia over the period 2014 to 2021 tends to decline. Although palm oil is also used as a biodiesel blend with fossil diesel and the use of biodiesel continues to increase, the value of oil palm plantation companies tends to be below coal companies that have similar product benefits as fuel.

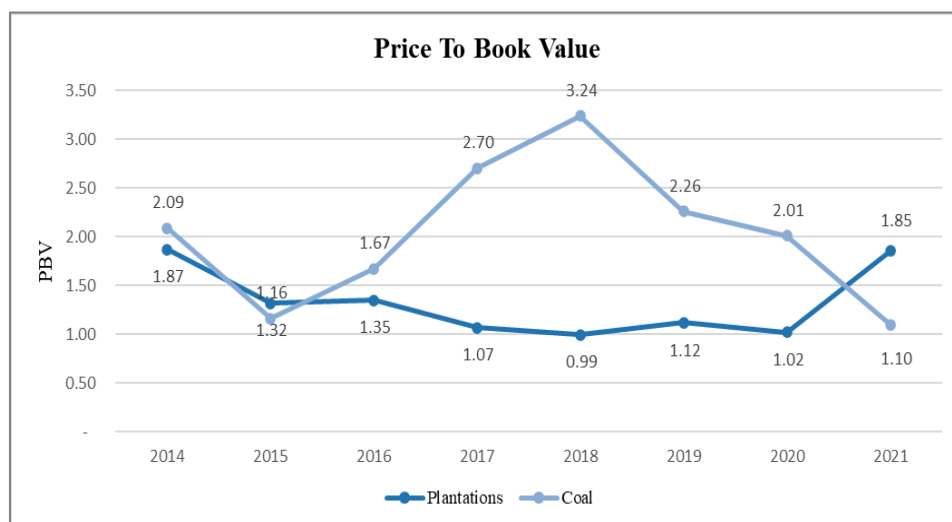


Fig. 1: Firm Value (PBV) of Plantations and Coal companies in 2014-2021

The results of previous research conducted by Suryani and Yeni (2022), Prastika (2021), Chabachib *et al.* (2020), Paramitha (2020), Febriani (2020) and Hirdinis (2019) show that company performance is influenced by various factors, including profitability, liquidity, capital structure, firm size and CSR disclosure. A high level of profitability can reflect the company's ability to generate high profits for shareholders (Spence, 1973), but the results of previous research on the effect of profitability on firm value still vary.

Company liquidity also plays an important role in influencing firm value. Companies with high liquidity tend to have good prospects, which can increase stock prices and firm value (Brigham and Houston, 2019). However, research results regarding the effect of liquidity on firm value are still inconsistent.

Capital structure and firm size also have an impact on firm value. An optimal capital structure can maximize firm value, but research results regarding the relationship between capital structure and firm value are still varied. The same goes for firm size, where the results of previous research on the effect of firm size on firm value are also not always consistent.

CSR disclosure is also an important factor in underlying firm performance. High CSR disclosure can contribute positively to firm value, but the results of research on the relationship between CSR and firm value are also not always consistent.

In this study, internal factors such as profitability, liquidity, capital structure, and firm size, as well as CSR disclosure are considered as variables that affect the value of oil palm plantation companies during the period 2014 to 2021. This study has a fairly long research period of 8 years and involves six variables related to company assets, including profitability which acts as a mediator in influencing firm value. Research on these factors is expected to provide a deeper understanding of their influence on the value of oil palm plantation companies in Indonesia.

Based on the description above, the authors are interested in conducting research with the title "Revealing the Impact of Internal Factors and Corporate Social Responsibility Disclosure on Firm Value with Profitability Mediation in Palm Oil Plantation Companies Listed on the Indonesia Stock Exchange for the 2014-2021 Period".

This study limits the problem by measuring firm value using price to book value (PBV) as a proxy. Internal factors consist of liquidity measured by Current Ratio (CR), capital structure measured by Debt to Asset Ratio (DAR) and firm size. Profitability is measured by Return on Assets (ROA). The sample companies are those listed on BEI before 2014 and routinely submit annual reports. The research objective is to analyze the effect of CR, DAR, Firm Size, and CSR disclosure on ROA, PBV, as well as the mediation of ROA in the relationship.

This research is expected to provide benefits for all parties, especially researchers and scientific developers from theoretical and practical aspects. For companies, this research helps evaluate performance and strategic policies related to PBV, ROA and sustainability. For investors, this research is a source of investment consideration because it shows the level of health of the company. The academic contribution is in the form of an overview and analysis for future researchers on the influence of CR, DAR, Firm Size, and CSR Disclosure on PBV of oil palm plantations as well as the mediating role of ROA in influencing PBV.

II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

A. Theoretical Review

➤ Firm Value

Firm value plays an important role in investor feedback and company success. A high share price reflects high corporate value, increases investor confidence, and encourages capital investment. A good corporate image also has a positive impact on the value of the company because it shows the amount of assets owned. Measuring firm value can use valuation ratios, such as Price to Book Value (PBV), which describes the ratio of the stock price to the company's book value (Brigham and Houston, 2019).

➤ Signaling Theory

Signalling theory is a concept proposed by Spence (1973) on how company shareholders view future prospects and company value. Companies provide signals through information submitted to investors to distinguish good and bad quality companies. This theory influences market prices and investor decisions, mainly based on the company's increased profitability.

➤ Trade off Theory

Trade off theory states that a firm's capital structure results from a consideration between the tax benefits and the cost of debt. The goal is to balance the benefits and costs of debt. This theory predicts a positive relationship between capital structure and firm value up to a certain point, after which, the use of debt can decrease firm value. The optimal combination of capital structure can minimise the cost of capital and improve firm performance (Brigham dan Houston, 2019).

➤ Profitability

The company's profitability can be measured by Return on Asset (ROA), which indicates how much return on investment using the company's assets (Brigham and Houston, 2019). ROA also acts as an intervening variable in the relationship between the independent and dependent variables.

➤ Liquidity

Liquidity is the company's ability to pay short-term obligations on time (Brigham and Houston, 2019). High liquidity ratios signal good prospects and increase stock prices and company value. Current Ratio (CR) is used as an indicator of liquidity.

➤ *Capital Structure*

The company's capital structure affects the performance and success of the company. The optimal capital structure minimises the cost of capital and increases the value of the Company (Santoso and Budiarti, 2020). Debt to Assets Ratio (DAR) is used to measure capital structure.

➤ *Firm Size*

Firm size is an indicator to measure the scale of the company based on total assets, stock market value, and number of employees. Company size affects profitability because large companies require large funds for operational continuity and profit (Veda and Panji, 2021). Large companies have greater resources and assets, the larger the size of the company, the greater the profit potential (Octaviany *et al.*, 2019).

➤ *Corporate Social Responsibility Disclosure*

Corporate Social Responsibility Disclosure (CSR disclosure) is a corporate social activity that contributes to sustainable economic development beyond business interests (McWilliams and Siegel, 2001). This has a positive impact on the company's financial performance. Laws and regulations encourage companies to disclose social responsibility in annual reports. The Global Reporting Initiative (GRI) index encourages corporate sustainability reporting with economic, environmental, and social performance indicators (Suhartini and Megasyara, 2019).

B. Hypothesis Development

➤ *The Effect of CR on ROA*

Company liquidity as measured by CR, is the ability to pay short-term obligations on time (Brigham and Houston, 2019). Previous research (Suryani and Yeni, 2022) stated that CR has a significant positive effect on ROA. Therefore, the hypothesis of this study is:

H1: CR has a positive effect on ROA.

➤ *The Effect of DAR on ROA*

Capital structure (DAR) is the ratio of total debt to total assets, where the optimal capital structure can maximise firm value (Brigham and Houston, 2019). Research by (Prakoso *et al.*, 2022) states that DAR has a significant negative effect on ROA

H2: DAR has a negative effect on ROA.

➤ *The Effect of Firm Size on ROA*

Firm size is a concern for investors in making decisions. Large companies have a greater opportunity to generate profits. Research conducted by Yulimtinan and Atiningsih (2021) states that Firm Size has a significant positive effect on ROA.

H3: Firm Size has a positive effect on ROA.

➤ *The Effect of CSR Disclosure on ROA*

Corporate awareness of the environment and society is required through CSR disclosure. CSR disclosure is oriented towards all interested parties, including employees, consumers, society and government (Neliana and Destiana, 2021). The results of research conducted by Neliana and Destiana (2021) state that CSR disclosure has a positive effect on ROA.

H4: CSR Disclosure has a positive effect on ROA.

➤ *The Effect of ROA on PBV*

High company profitability reflects good operational performance and attracts investor interest (Suryani and Yeni, 2022). The positive relationship between ROA and firm value indicates that good profit growth improves the company's future prospects. High profits increase the value of the company, provide a greater rate of return to investors and convey positive signals. Previous research by Wendy *et al.* (2022) proved that ROA has a positive effect on PBV.

H5: CR has a positive effect on PBV.

➤ *The Effect of CR on PBV*

High liquidity indicates the availability of funds for dividend payments and investment, giving a positive signal to investor perceptions. Companies with high liquidity have large internal funds, using these funds before going into debt (Suryani and Yeni, 2022). If the company can meet short-term obligations with current assets, it is considered liquid. Investors do not need to worry about investing because of sufficient liquidity. The results of research conducted by Utami and Welas (2019) show that CR has a positive effect on PBV.

H6: CR has a positive effect on PBV.

➤ *The Effect of DAR on ROA*

Trade-off theory in capital structure suggests the use of Debt to Assets Ratio (DAR) to balance the benefits and costs of debt. Companies must consider efficient funding alternatives to achieve financial balance and avoid bankruptcy (Sihombing, 2018). The high value of DAR means the amount of fixed costs and financial risk of the company. Investors tend to dislike companies with a high level of risk, causing stock prices to fall (Brigham and Houston, 2019). This is in line with the results of research by Paramitha (2020), that capital structure has a significant negative effect on PBV.

H7: CR has a positive effect on PBV.

➤ *The Effect of Firm Size on ROA*

Firm size shows the value of the company with total assets, sales and average assets and sales. Large companies have easier access to capital markets and attract investors (Chabachib *et al.*, 2020). The high size of the company indicates good growth and provides a positive signal to investors. The results of Atiningsih and Izzaty's (2021) research prove that firm size has a positive and significant effect on PBV.

H8: Firm Size has a positive effect on PBV.

➤ *The Effect of CSR Disclosure on PBV*

Companies want to increase value and sustainability by paying attention to economic, social and environmental dimensions through CSR to achieve a balance between economic, environmental and community interests (Suhartini and Megasyara, 2019). The results of Neliana and Destiana's research (2021) show that CSR disclosure has a positive effect on PBV.

H9: CSR Disclosure has a positive effect on PBV.

➤ *The Effect of CR on PBV with ROA as Intervening Variable*

Liquidity is the level of a company's ability to pay short-term and timely obligations (Brigham and Houston, 2019). Liquidity is measured by CR which shows the company's ability to meet short-term obligations. High CR indicates safe conditions and reduces the risk of bankruptcy. High liquidity helps smooth operations and increase company profits. High profitability attracts investors, increasing stock demand, stock prices and company value. The results of research by Chabachib *et al.* (2020), show that ROA is able to mediate the effect of CR on PBV.

H10: CR affects PBV through ROA as an intervening variable.

➤ *The Effect of DAR on PBV with ROA as Intervening Variable*

The capital structure proxied by DAR (Debt to Asseta Ratio) shows the level of use of debt to the company's total assets. The decision to use debt for the company must use the right proportion, because this policy will affect the value of the company (Sihombing, 2018). The high Debt to Assets Ratio (DAR) shows the company's dependence on debt as a source of operational funding. High debt causes large interest costs and can reduce net income. The decline in profitability causes the share price to fall and affects the value of the Company.

The results of research by Wijaya and Pakpahan (2021), show that ROA is able to mediate the effects of capital structure on firm value.

H11: DAR affects PBV through ROA as an intervening variable.

➤ *The Effect of Firm Size on PBV with ROA as Intervening Variable*

Firm Size is reflected in the amount of assets owned. The larger the size of the company, the greater the total assets and resources owned. Large companies demonstrate security, success, and access to capital markets that enable optimal investment and increase profits (Octaviany *et al.*, 2019). Investors are attracted by the potential for high returns, increasing stock prices and firm value. Research conducted by Yulimtinan and Atiningsih (2021), found that ROA is able to mediate the effect of firm size on PBV.

H12: Firm Size has an effect on PBV through ROA as an intervening variable.

➤ *The Effect of CSR Disclosure on PBV with ROA as Intervening Variable*

The company's image will increase with more and more forms of corporate responsibility for the environment (Meiyana and Aisyah, 2019). Corporate sustainability, taking into account economic, social and environmental dimensions, increases the value of the company. A good image attracts investors and consumers, improves sales, and increases profitability. Profitability is the financial part that affects company value.

Based on research conducted by Neliana and Destiana (2021), it is known that ROA is able to mediate CSR disclosure on PBV.

H13: CSR disclosure affects PBV through ROA as an intervening variable.

Systematically, the framework of this research can be seen in the following figure:

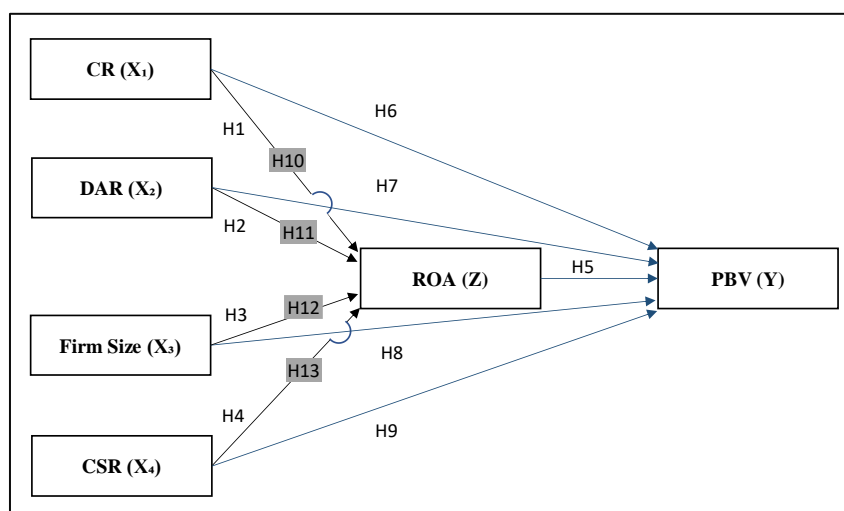


Fig. 2: Research Thinking Framework

III. RESEARCH METHODOLOGY

A. Research Design

This study uses a causal associative quantitative approach to test the relationship between the independent variables (CR, DAR, Firm Size, CSR Disclosure) and the dependent variable (PBV), with the intervening variable ROA. Secondary data from 2014-2021 is taken from the annual reports of oil palm plantation companies listed on the IDX.

B. Variable Measurement

This study aims to examine the effect of independent variables (CR, DAR, Firm Size, CSR Disclosure) on the dependent variable PBV with the intervening variable ROA in oil palm plantation companies in 2014-2021. All variables are calculated in annual time periods.

C. Population and Sample

The population in this study were 21 oil palm plantation companies listed on the IDX in 2021, and a purposive sampling method was used so that 13 companies that met the criteria were obtained. Observations were made on 104 annual reports from 2014 to 2021. There were 23 outlier data detected by Z-score, data outside the normal curve (3 standard deviations) were considered as outliers, so the total number of observations in this study was 81.

D. Data Collection Technique

The data collection technique used to obtain secondary data in is library research, the data used is secondary data obtained through the internet site www.idx.co.id and the official website of each company, namely in the form of the company's annual report during the 2014-2021 period.

E. Data Analysis Method

The data analysis method uses multiple linear regression and path analysis with the help of SPSS version 27 to test the significance of the regression coefficients of the independent and intervening variables on the dependent variable. Descriptive analysis was conducted for variable X (CR, DAR, Firm Size, CSR Disclosure), intervening variable (ROA), and variable Y (PBV) to describe the research results factually and accurately. The inferential analysis consists of a classical assumption test to evaluate the regression model to avoid bias, test the feasibility of the model using R2 and F test. Partial t test measures the effect of independent variables partially. Path analysis determines the effect of intervening variables. The Sobel test is used to test the mediation hypothesis.

IV. RESULTS AND DISCUSSION

A. Descriptive Statistical Data Analysis

Descriptive statistics are used to describe the sample in the study, including mean, standard deviation, maximum, and minimum values. The number of observations for each variable is 81.

Table 1: Results of Descriptive Statistical Analysis

| Descriptive Statistics | | | | | |
|-------------------------|----|---------|---------|--------|----------------|
| Variable | N | Minimum | Maximum | Mean | Std. Deviation |
| CR | 81 | 0,100 | 2,850 | 1,075 | 0,621 |
| DAR | 81 | 0,060 | 1,110 | 0,545 | 0,202 |
| Firm Size (Billion IDR) | 81 | 1.993 | 40.345 | 14.517 | 10.606 |
| CSR Disclosure | 81 | 0,490 | 0,870 | 0,660 | 0,104 |
| ROA | 81 | -0,147 | 0,136 | 0,117 | 0,345 |
| PBV | 81 | -0,720 | 2,930 | 1,007 | 0,621 |

The following is a description of each research variable:

- CR has an average of 1.075, indicating that current assets are smaller than short-term liabilities, the minimum value is 0.1 in the Bakrie Sumatera Plantations Tbk. (UNSP) company in 2016, while the maximum value is 2.85, namely in the Astra Agro Lestari Tbk. (AALI) company in 2019, and the standard deviation is 0.621.
- DAR shows an average of 0.545, indicating that 54.5% of financing comes from debt, the minimum value of DAR is 0.06 in the company Austindo Nusantara Jaya Tbk. (ANJT) in 2014, while the maximum value is 1.11, namely in the company Bakrie Sumatera Plantations Tbk. (UNSP) in 2018, and a standard deviation of 0.202.
- Firm Size has an average of IDR 14,517 billion, the minimum value is IDR 1,993 billion in the Provident Agro Tbk. (PALM) company in 2018, while the maximum value is IDR 40,345 billion, namely in the SMART Tbk. (SMAR) company in 2021, and the standard deviation value is IDR 10,606 billion.

- CSR disclosure has an average of 0.66, indicating a commitment to social responsibility, the minimum value is 0.49, namely in the Gozco Plantations Tbk. (GZCO) company in 2014 while the maximum value is 0.87 in the Sampoerna Agro Tbk. (SGRO) company in 2021, and a standard deviation of 0.104.
- ROA averages 0.117, indicating effectiveness in managing assets. the minimum value is -0.147, namely in the company Bakrie Sumatera Plantations Tbk. (UNSP) in 2018, while the maximum value is 0.136 in the company PP London Sumatra Indonesia Tbk. (LSIP) in 2014 and a standard deviation of 0.346.
- The average firm value (PBV) is 1.007, indicating that the share price is comparable to the company's book value, the minimum value of PBV of oil palm plantation companies is -0.72 in the company Bakrie Sumatera Plantations Tbk. (UNSP) in 2017, the minus value is caused by its minus book value, which is caused by minus equity as a result of lower total assets owned by the company compared to its total debt. The maximum PBV value is 2.93 in the SMART

Tbk. (SMAR) company in 2014, and the standard deviation is 0.621.

B. Inferential Data Analysis

➤ **Classical Assumption Test**

The Classical Assumption Test is carried out at an early stage after the data is obtained, with the aim of obtaining estimates and preliminary conditions so that linear regression can be carried out. The stages carried out in this test are:

- The normality test results show that the data is normally distributed ($p\text{-value} > 0.05$) with a probability of 0.082. The assumption of normality is met.
- Data from independent variables (CR, DAR, Firm Size, CSR, and ROA) do not show symptoms of multicollinearity because the tolerance value > 0.10 and the VIF value < 10 . So, this study is free from multicollinearity problems.
- The scatterplot graph shows a random distribution of points above and below the number 0 on the Y axis, there is no particular pattern. There is no heteroscedasticity in the regression model.

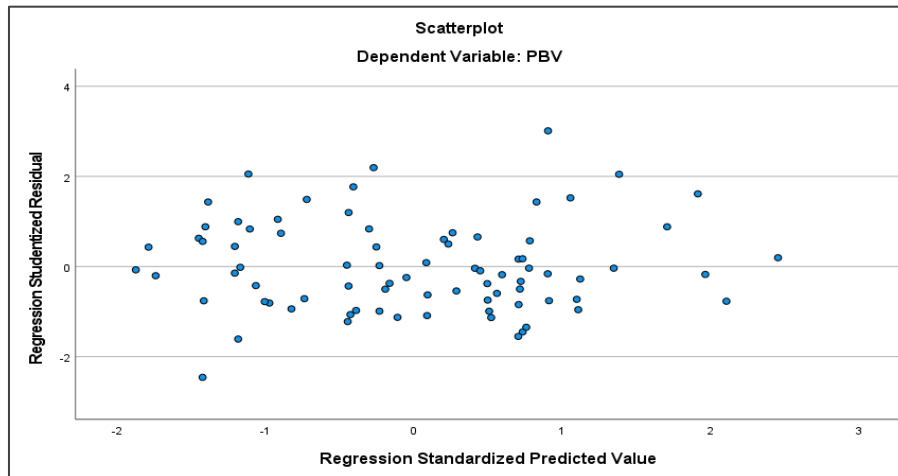


Fig. 3: Scatterplot Results

- Based on SPSS 27 calculations, the DW value in this study is 1.993, which is in the range of $dU < d < 4-dU$, indicating there is no autocorrelation in the regression equation.

➤ **Model Feasibility Test (Goodness of Fit)**

- Test Coefficient of Determination (R^2)

✓ **Model 1:**

The coefficient of determination test results show the Adjusted R Square of 0.574, which means that 57.4% of the variation in the ROA variable can be explained by the variation of the four independent variables and the remaining 42.6% is influenced by variables outside this study.

✓ **Model 2:**

The coefficient of determination test results show the Adjusted R Square value of 0.180, meaning that 18% of PBV variation is explained by the five independent variables (CR, DAR, Firm Size, CSR disclosure and ROA) and the remaining 82% is influenced by other variables.

The difference in Adjusted R Square values in Model 1 and Model 2 shows the relevance of the independent variables in explaining the dependent variable. Model 1 is stronger (57.4%) and Model 2 is weaker (18%). In the hypothesis test (t-test) it will be shown that some independent variables have no effect on PBV in Model 2.

• **F Statistical Test**

The F test is used to determine the linear relationship between the dependent and independent variables.

Table 2: F Statistical Test Model 1

| ANOVA^a | | | | | | |
|--------------------------|------------|----------------|----|-------------|--------|-------------------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 5.752 | 4 | 1.438 | 27.910 | .000 ^b |
| | Residual | 3.916 | 76 | .052 | | |
| | Total | 9.669 | 80 | | | |

a. Dependent Variable: ROA
b. Predictors: (Constant), CSR, DAR, SIZE, CR

Based on Table 2 above, the results of the F test in Model 1 show that the variables CR, DAR, Firm Size, and

CSR have a significant effect on the ROA of oil palm companies.

Table 3: F Statistical Test Model 2

| ANOVA ^a | | | | | | |
|--|------------|----------------|----|-------------|-------|-------|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 7.112 | 5 | 1.422 | 4.503 | .001b |
| | Residual | 23.693 | 75 | .316 | | |
| | Total | 30.805 | 80 | | | |
| a. Dependent Variable: PBV | | | | | | |
| b. Predictors: (Constant), ROA, SIZE, CSR, DAR, CR | | | | | | |

The results of the F test in Model 2 show that the variables CR, DAR, Firm Size, CSR, and ROA have a significant effect on the PBV of palm oil companies.

➤ Hypothesis Test

- Partial Test (t Test)
To find out how far the influence of the independent variables partially in explaining the dependent variable, the t test is carried out with a significance level of 5%.

Table 4: Model 1 t Test

| Coefficients ^a | | | | | | |
|----------------------------|------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | CR | .458 | .109 | .401 | 4.210 | .000 |
| | DAR | -.410 | .160 | -.238 | -2.568 | .012 |
| | SIZE | .080 | .032 | .191 | 2.499 | .015 |
| | CSR | .011 | .002 | .334 | 4.448 | .000 |
| a. Dependent Variable: ROA | | | | | | |

Based on table 4 above, it can be seen that:

- ✓ The effect of CR on ROA:
CR variable has a significance value of 0.000 which is smaller than 0.05 (0.000 < 0.05). For the t value, it is greater than the t table (4.210 > 1.991) so that Ho is rejected and Ha is accepted. So it can be said that CR has a positive effect on ROA.
- ✓ The effect of DAR on ROA:
The DAR variable has a significance value of 0.012, smaller than 0.05 (0.012 < 0.05), with a calculated t value greater than the t table (-2.568 > 1.991), negative on t indicates direction. Thus Ho is rejected and Ha is accepted, so it can be said that DAR has a negative effect on ROA.

- ✓ The effect of Firm Size on ROA:
Firm Size variable has a significance value of 0.015, smaller than 0.05 (0.015 < 0.05). The calculated t value is greater than the t table (2.499 > 1.991) so that Ho is rejected and Ha is accepted. Thus it can be said that Firm Size has a positive effect on ROA.
- ✓ Effect of CSR Disclosure on ROA:
The CSR disclosure variable has a significance value of 0.000, smaller than 0.05 (0.000 < 0.05), and t count is greater than t table (4.448 > 1.991) so that Ho is rejected and Ha is accepted, it can be said that CSR has a positive effect on ROA.

Table 5: Model 2 t Test

| Coefficients ^a | | | | | | |
|----------------------------|------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| | CR | .539 | .299 | .265 | 1.801 | .076 |
| | DAR | .954 | .412 | .311 | 2.315 | .023 |
| | SIZE | -.148 | .082 | -.199 | -1.800 | .076 |
| | CSR | .000 | .007 | .004 | .037 | .970 |
| | ROA | .780 | .284 | .437 | 2.747 | .008 |
| a. Dependent Variable: PBV | | | | | | |

Based on table 5 above, it can be seen that:

✓ The effect of CR on PBV:

The CR variable has a significance value of 0.076, greater than 0.05 (0.076 > 0.05). For the t value, it is smaller than the t table (1.801 < 1.992) so that Ho is accepted and Ha is rejected. So it can be said that CR has no effect on PBV. However, the CR variable has a positive effect on PBV at alpha 10% (0.076 < 0.100).

✓ The effect of DAR on PBV:

The DAR variable has a significance value of 0.023, smaller than 0.05 (0.023 < 0.05). For the value of t count greater than t table (2.315 > 1.992), then Ho is rejected and Ha is accepted, so it can be said that DAR has a positive effect on PBV.

✓ The effect of Firm Size on PBV:

Firm Size variable has a significance value of 0.076, greater than 0.05 (0.076 > 0.05). For the value of t count is smaller than t table (-1.800 < 1.991) so that Ho is accepted and Ha is rejected. it can be said that Firm Size has no effect on PBV, however, the Firm Size variable has a positive effect on PBV at alpha 10% (0.076 < 0.100).

✓ Effect of CSR Disclosure on PBV:

The CSR variable has a significance value of 0.970, greater than 0.05 (0.970 > 0.05), while the calculated t value is smaller than the t table (0.037 < 1.991), then Ho is accepted and Ha is rejected and it can be said that CSR has no effect on PBV.

• Regression Analysis Test

✓ Regression Test Model 1:

Based on the regression analysis results in the table 4 above, the regression model is obtained as follows:

$$ROA = 0.458CR - 0.410DAR + 0.080Size + 0.011CSR$$

Based on the regression model above, the following information is obtained:

- The CR regression coefficient is positive 0.458, meaning that an increase in CR by 1 point causes ROA to increase by 0.458, assuming other variables are constant.
- The DAR regression coefficient is negative 0.410, meaning that an increase in DAR by 1 point causes ROA to decrease by 0.410, assuming other variables are constant.
- Firm Size regression coefficient is positive 0.080, meaning that an increase in Firm Size by 1 point causes ROA to increase by 0.080, assuming other variables are constant.
- CSR regression coefficient is positive 0.011, meaning that an increase in CSR by 1 point causes ROA to increase by 0.011, assuming other variables are constant.

✓ Regression Test Model 2:

Based on the regression analysis results in the table 5 above, the regression model is obtained as follows:

$$PBV = 0.539CR + 0.954DAR - 0.148Size + 0.000CSR + 0.780ROA$$

Based on the regression model above, the following information is obtained:

- The CR regression coefficient is positive 0.539, meaning that an increase in CR by 1 point causes PBV to increase by 0.539, assuming other variables are constant.
- The DAR regression coefficient is positive 0.954, meaning that an increase in DAR by 1 point causes PBV to increase by 0.954, assuming other variables are constant.
- Firm Size regression coefficient is negative 0.148, meaning that an increase in Firm Size by 1 point causes PBV to decrease by 0.148, assuming other variables are constant.
- The CSR regression coefficient is positive 0.000, meaning that an increase in CSR by 1 point causes PBV to increase by 0.000, assuming other variables are constant.
- ROA regression coefficient is positive 0.780, meaning that an increase in ROA by 1 point causes PBV to increase by 0.780, assuming other variables are constant.

• Path Analysis

Path analysis to test the effect of intervening variables. Multiple regression analysis is carried out twice, first for the independent variable on intervening, second for the independent variable on the dependent.

➤ Interpretation of Path Analysis:

According to the results of the calculation of the coefficient of determination (R²), it is known that $e1 = \sqrt{(1 - 0,595)} = 0,636$. The effect of CR, DAR, Firm Size and CSR disclosure on ROA can be described through the following equation:

$$ROA = p1CR + p2DAR + p3Size + p4CSR + e1$$

The form of the equation after regression model 1 is as follows:

$$Z = 0.458CR - 0.410DAR + 0.080Size + 0.011CSR + 0.636$$

Based on the calculation of the coefficient of determination (R²), the value of $e2 = \sqrt{(1 - 0,231)} = 0,877$. The effect of CR, DAR, Firm Size, CSR disclosure and ROA on PBV can be described through equation 2 below:

$$PBV = p6CR + p7DAR + p8Size + p9CSR + p5ROA + e2$$

The form of the equation after regression model 2 (two) is as follows:

$$Y = 0.539CR + 0.954DAR - 0.148Size + 0.000CSR + 0.780ROA + 0.877$$

Based on the regression results above, the relationship path diagram of CR, DAR, Firm Size, CSR disclosure, ROA and PBV is as follows:

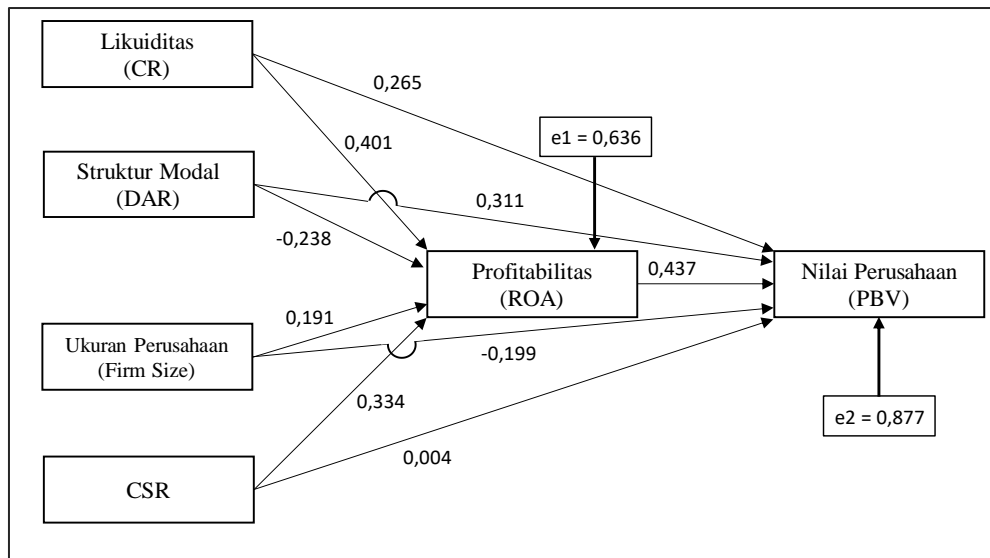


Fig. 1: Path Analysis Scheme

➤ *Analysis of Direct and Indirect Influence:*

In this study, the path model explains the direct and indirect effects of independent variables on the dependent variable.

- ✓ The effect of CR on PBV is confirmed directly 0.265 and indirectly through ROA 0.175, with a total effect of 0.440.
- ✓ The effect of DAR on PBV is directly 0.311 and indirectly through ROA -0.104, with a total effect of 0.207.
- ✓ The effect of Firm Size on PBV is directly -0.199 and indirectly through ROA 0.083, with a total effect of -0.116.
- ✓ The effect of CSR on PBV is directly 0.004 and indirectly through ROA 0.146, with a total effect of 0.150.

• Sobel Test Calculation Analysis

The results of the Sobel Test mediation test show that:

- ✓ The effect of CR on PBV through ROA: The calculated t value is greater than the t table ($2.2546 > 1.9908$), with a significance level of 0.05, it can be concluded that the mediation coefficient of 0.175 is significant and there is a mediating effect.
- ✓ The effect of DAR on PBV through ROA: The calculated t value is smaller than the t table ($1.8106 < 1.9908$) with a significance level of 0.05, it can be concluded that the mediation coefficient of -0.104 has no mediating effect.
- ✓ The effect of Firm Size on PBV through ROA: The calculated t value is smaller than the t table ($1.7852 < 1.9908$) with a significance level of 0.05 and obtained a mediation coefficient of -0.104. So it can be concluded that there is no mediating influence.
- ✓ The effect of CSR on PBV through ROA: The calculated t value is greater than the t table ($2.4253 > 1.9908$) with a significance level of 0.05, it can be concluded that the mediation coefficient is -0.146, insignificant, which means there is no mediation effect.

C. Discussion

➤ *The effect of CR on ROA*

CR has a positive effect on ROA in oil palm plantation companies on the Indonesia Stock Exchange 2014-2021, so the hypothesis is accepted. High liquidity (CR) increases profitability by optimising working capital for operational activities. Credibility and stock demand increase due to the ability to pay obligations on time. The results are in line with previous research (Suryani and Yeni, 2022; Chabachib *et al.*, 2020; Wendy *et al.*, 2022). Oil palm plantation companies have high liquidity due to asset efficiency and productive management, driving up profitability.

➤ *The Effect of DAR on ROA*

DAR has a negative effect on ROA in oil palm plantation companies on the Indonesia Stock Exchange 2014-2021, so the hypothesis is accepted. High DAR causes a decrease in profitability due to high debt (interest) expenses. Inappropriate use of debt is not effective in increasing profitability. This result is in line with previous research (Prakoso *et al.*, 2022; Putri and Rahyuda, 2020). Although increasing debt provides additional funds, it does not guarantee high profits if its use is inappropriate.

➤ *The effect of Firm Size on ROA*

Firm size has a positive effect on ROA in oil palm plantation companies on the Indonesia Stock Exchange 2014-2021, so the hypothesis is accepted. Large firm size (total assets) increases profitability due to financial stability and the ability to finance operational activities. Large companies have a large turnover of money and market capitalisation, opening up opportunities for greater profits. The results of this study are in line with previous research (Prakoso *et al.*, 2022; Chabachib *et al.*, 2020; Veda & Panji, 2021; Atiningsih and Izzaty, 2021).

➤ *The Effect of CSR Disclosure on ROA*

CSR disclosure has a positive effect on ROA in oil palm plantation companies on the Indonesia Stock Exchange 2014-2021, so the hypothesis is accepted. CSR disclosure increases ROA and creates trust from investors and the public. Extensive CSR activities support the company's image, gain support from stakeholders and increase profitability. These results are in line with previous research (Neliana and Destiana, 2021; Astuti *et al.*, 2020; Kurniasari and Bernawati, 2020) which shows that CSR disclosure has a positive effect on ROA.

➤ *The effect of ROA on PBV*

ROA has a positive effect on PBV in oil palm plantation companies on the Indonesia Stock Exchange 2014-2021. So the hypothesis is accepted, a high ROA indicates efficient use of assets, increased sales, and good investment, giving a positive signal to investors. Investors respond to this signal by increasing demand for shares, so that the share price and firm value rise. These results are in line with previous research (Prakoso *et al.*, 2022; Neliana and Destiana, 2021; Yulimtinan and Atiningsih, 2021) which found a positive and significant relationship between profitability and firm value (PBV).

➤ *The Effect of CR on PBV*

CR has no effect on the PBV of oil palm plantations on the Indonesia Stock Exchange 2014-2021, so the hypothesis is rejected. Although the company shows the ability to pay off short-term debt and good performance, the demand for shares has not increased, and the share price and firm value have not increased. In the oil palm plantation business with a long cycle, the liquidity of the company's assets in the short term is not the main focus in assessing the company's valuation. This study is in line with previous results (Wendy *et al.*, 2022; Paramitha, 2020), showing that CR is not significant on PBV.

➤ *The effect of DAR on PBV*

DAR has a positive effect on PBV in oil palm plantation companies on the Indonesia Stock Exchange 2014-2021. This finding is not in accordance with the hypothesis which states that DAR has a negative effect on PBV, so the hypothesis is rejected because the direction is opposite. The results show that any increase in capital structure as measured by DAR can increase firm value. An increase in capital structure provides a positive signal to investors, encouraging investment interest and increasing stock prices, which in turn increases firm value. This research is in line with the results of previous studies which show the positive effect of DAR on PBV (Wijaya and Pakpahan, 2021; Suzulia *et al.*, 2020; Hirdinis, 2019).

➤ *The Effect of Firm Size on PBV*

Firm Size has no effect on PBV in oil palm plantation companies on the Indonesia Stock Exchange 2014-2021. This result is not in accordance with the hypothesis which states that Firm Size has a positive effect on PBV, so the hypothesis is rejected. Firm size does not provide relevant signals for investors because PBV movements fluctuate and there is a downward trend, but the effect of Firm Size is not significant on PBV. This result is in line with previous research which shows that firm size has no significant effect on firm value

(Prakoso *et al.*, 2022; Yulimtinan and Atiningsih, 2021; Sugosha and Artini, 2020).

➤ *The Effect of CSR Disclosure on PBV*

CSR disclosure has no effect on PBV in oil palm plantation companies on the Indonesia Stock Exchange 2014-2021. This result is not in accordance with the previous hypothesis which states that CSR disclosure has a positive effect on PBV, so the hypothesis is rejected. Companies tend to focus more on financial factors than non-financial factors such as CSR. The low value of CSR disclosure from companies indicates a lack of attention to non-financial aspects. Several categories of CSR disclosure indicators are still low, including human rights performance, community/social performance, and product responsibility. However, the low CSR disclosure has not impacted the value of the company because investors are more likely to look at the company's profitability. This study is in line with previous research which shows that CSR disclosure has no significant effect on PBV (Neliana and Destiana, 2021; Kurniasari and Bernawati, 2020).

➤ *The Effect of CR on PBV with ROA as an Intervening Variable*

ROA acts as a mediator in the relationship between CR and PBV in oil palm plantation companies. This result indicates that CR has a positive effect on PBV through ROA mediation, in accordance with the research hypothesis. The high CR of the company indicates sufficient liquidity to support the company's operations and profits. High ROA also contributes to an increase in PBV, indicating stable conditions and high corporate value. This study confirms that ROA mediates the relationship between CR and PBV, in line with the results of Chabachib *et al.* (2020).

➤ *The Effect of DAR on PBV with ROA as Intervening Variable*

DAR has no effect on PBV with ROA as a mediator. This result does not support the hypothesis which previously stated that DAR has an effect on PBV with ROA as an intermediary, so the hypothesis is rejected. Research shows that corporate funding decisions do not always affect firm value through profits. ROA is unable to mediate the effect of DAR on PBV due to the large number of long-term assets that are not always reflected in PBV. In addition, volatile commodity prices also affect ROA directly, reducing the influence of ROA as a mediator. These results are in line with previous research conducted by Prakoso *et al.* (2022) and Chabachib *et al.* (2020), who found that ROA does not mediate the effect of capital structure on firm value.

➤ *The Effect of Firm Size on PBV with ROA as Intervening Variable*

ROA does not affect the relationship between Firm Size and PBV in oil palm plantation companies. This result does not support the previous hypothesis which states that Firm Size affects PBV with ROA as an intermediary. This research is not in accordance with Signaling Theory which states that high profitability will increase firm value. Firm size does not provide a positive signal to firm value, regardless of the level of profitability. The size of the company's assets does not always increase profitability and investor confidence. These

results are in line with previous research by Prakoso *et al.* (2022) and Hirdinis, (2019) who found that ROA does not mediate the effect of Firm Size on PBV.

➤ *The Effect of CSR Disclosure on PBV with ROA as Intervening Variable*

ROA is able to mediate the effect of CSR disclosure on PBV in oil palm plantation companies. These results support the previous hypothesis that CSR disclosure has a positive effect on PBV with ROA as an intervening variable. CSR disclosure provides good signals to investors about the company's performance and increases investor interest, which contributes to an increase in the value of the company and its share price. ROA is the company's achievement in a certain period of time and views diverse stakeholders in CSR. These results are in line with previous research by Neliana and Destiana (2021) and Kurniasari and Bernawati (2020) which state that ROA mediates the effect of CSR on PBV.

V. CONCLUSIONS AND SUGGESTIONS

A. Conclusion

The results of research on oil palm plantation companies on the Indonesia Stock Exchange 2014-2021, found that CR has a positive effect on ROA, DAR has a negative effect on ROA, Firm Size has a positive effect on ROA, CSR disclosure has a positive effect on ROA, ROA has a positive effect on PBV, DAR has a positive effect on PBV, but CR, Firm Size and CSR disclosure have no significant effect on PBV. ROA mediates the effect of CR on PBV, if CR is high, ROA is also high, and high ROA increases PBV. A large CR indicates that the company has sufficient funds without much debt, reduces interest expense, and increases profits. ROA mediates the effect of CSR disclosure on PBV, CSR disclosure provides good signals to investors about the company's performance, which contributes to increasing the value of the company and its share price. However, Firm Size and DAR have no significant impact on PBV through ROA.

B. Suggestions

Based on the results of this study, the authors provide several suggestions. For oil palm plantation companies, it is recommended to increase ROA, especially for companies with low ROA such as Bakrie Sumatera Plantations Tbk, Jaya Agra Wattie Tbk, Eagle High Plantations Tbk, Gozco Plantations Tbk, and Provident Agro Tbk. Companies should also increase CSR disclosure, especially for indicators of Human Rights Performance, Community/Social Performance, and Product Responsibility Performance, because this has an impact on reputation and good relations with stakeholders.

For investors, it is important to consider variables that affect profitability and firm value, such as CR, DAR, Firm Size and CSR disclosure before investing.

For future researchers, due to the limitations of this study, namely the variables used in the majority of studies related to company assets (CR, DAR, Firm Size and ROA), and obtained a coefficient of determination of only 18%, which means that most of the effect on firm value is determined by other variables outside of this study, then we suggest changing the independent variables and adding Good

Corporate Governance and Green Management variables as independent variables because they are still rarely studied, as well as the intervening variable return on equity (ROE) to complement the profitability variable in research on oil palm plantation companies with path analysis.

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