

## **The Impact of Company Size and Debt Policy on Firm Value during COVID Pandemic: Profitability as a Moderating**



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**ABSTRACT:** During the COVID-19 Pandemic, investors perceive the value of a company, as reflected in its stock price, as a crucial factor in their investment decisions. The higher the company's value, the more appealing it becomes to potential investors. This study aims to examine how company size and debt policy impact firm value, with profitability acting as a moderating variable during the pandemic. The research specifically focuses on manufacturing companies listed on the Indonesia Stock Exchange between 2019 and 2021, analyzing the variables of company size, debt policy, and profitability as moderators for firm value. The study utilizes a quantitative approach with a causal research design. The sample was selected using purposive sampling, and the data was analysed using multiple linear regression analysis. The findings reveal that both company size and debt policy exert a positive influence on firm value. Furthermore, profitability is found to strengthen the relationship between company size, debt policy, and firm value.

**KEYWORDS:** Company size, debt policy, profitability, firm value.

### **I. INTRODUCTION**

Investors often employ the company's value as a gauge to assess its worth, typically in connection with its stock price. The determination of a company's value, which is influenced by various stock market factors, is significantly impacted by the opportunities for investment that exist, (Sudiani & Darmayanti, 2016). Through this, it can be observed whether a company possesses significant assets or just ordinary assets. If a company has substantial assets, its value will increase accordingly (Stevani & Pernamasari, 2019). One of the industries affected by the Covid-19 pandemic is the manufacturing sector.

According to a statement released by the Indonesia Stock Exchange (IDX) in 2021, there was a decrease in the stock index due to the Covid-19 pandemic. This decline also occurred in stock exchanges worldwide, resulting in overall price volatility and impacting the performance of various companies' stocks. The decrease in the index reflects investors' concerns about the future global economic uncertainty. As a result, many investors chose to quickly sell their stocks to avoid greater losses (Pambudianna & Sari, 2020).

The phenomenon of default is also experienced by the giant property developer from China, Evergrande Group. Evergrande is burdened with a debt of USD 300 billion or IDR 4,277 trillion and faces the risk of bankruptcy. This is due to the company offering massive discounts to maintain property sales growth during the pandemic, effectively borrowing too much. However, the property developer's auditor, PwC, provided a healthy debt repayment report in the 2020 annual report. The company's 2020 financial statements did not express an opinion regarding a going concern warning. However, the auditor indicated doubts about the company's ability to sustain itself for at least the next 12 months (www.wsj.com, 2021).

There are many factors that can influence the value of a company. Nurmindia et al. (2017) state that the total assets of a company can influence investors in purchasing its stocks. The larger the company's size, the higher its value. In line with Suryana (2018), company size has a positive effect on its value because the total assets of a company tend to be more stable compared to total sales and are more relevant than market capitalization.

In addition to total assets, the debt policy, as stated by Ramadhani & Barus (2018), can also influence investor decisions in investing. Debt policy has an impact on managerial discipline since a significant amount of debt can lead to financial difficulties and bankruptcy risks. Therefore, managers must consider the consequences of financing decisions, whether using debt or equity, to fund company operations. However, Sumanti & Mangantar (2015) explain that companies with high debt levels can also reflect

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higher future prospects, although the majority of the market may react negatively to increasing debt as it may indicate bankruptcy risk (Yastini & Mertha, 2015).

The relationship between total assets and debt towards the value of a company can be moderated by the company's earnings. If the company's earnings increase, the relationship between total assets, debt, and the value of the company will also increase. Azari & Fachrizal (2017) state that profitability has a positive influence on the value of a company and can also be influenced by the total assets of the company. Companies with large assets will enhance the value of the company, and this effect will be strengthened if the company's profitability also increases. Regarding the relationship between debt and the value of the company, the value of the company can be reduced if profitability decreases, leading to a weaker negative relationship between debt and the value of the company (Sumanti & Mangantar, 2015).

## **II. LITERATURE REVIEW AND DEVELOPMENT HYPOTHESIS**

### **Signalling theory**

The signaling theory, first proposed by Spence (1973), has been widely studied by other researchers, such as the study conducted by Morin et al. (2019), which explains that the sender (information owner) provides a signal or information that reflects the condition of a company, beneficial for the receiver (investors). The signaling theory provides an insight that signals are actions taken by company management that provide guidance to investors on how management views the prospects of the company. This theory reveals that investors can distinguish between companies with high value and those with low value (Pernamasari et al., 2020).

### **The effect company size to firm value**

Company size reflects the company's ability to influence its value, and theoretically, larger companies have higher values. With a high company value, it becomes easier for the company to access external funding, resulting in fewer transaction costs compared to smaller companies (Ramdhonah et al., 2019). Company size can be measured by the extent of assets owned by a company. Therefore, company size is an important factor in the financial reporting process that can influence the company's value (Ramdhonah et al., 2019).

H1: Company size has a positive effect on firm value.

### **The effect debt policy to firm value**

Debt policy reflects the company's ability to conduct its business operations. Debt serves as an external source of funding for companies to support their operational activities (Septariani, 2017). If a company utilizes a higher level of debt, it can increase earnings per share, which in turn affects the increase in the company's stock price and consequently enhances the firm's value. Research findings (Annisa & Chabachib, 2017; Devianasari & Suryantini, 2015; Dzulqodah & Mujati, 2016) indicate that debt policy, proxied by the debt-to-equity ratio, has a negative effect on firm value.

H2: Debt-to-Equity Ratio (DER) has a negative effect on firm value.

### **Profitability moderates the influence of company size and debt policy on firm value.**

Profitability is a ratio used to assess a company's ability to generate profits (Ukhriyawati & Malia, 2018). Potential investors carefully analyze a company's smoothness and its ability to generate profits as they expect dividends and market prices from their shares (Aldila Septiana, 2019). Profitability plays an important role in company size because investors perceive a company positively if it can state the percentage of profit or earnings in sales, assets, or equity. Return on Assets (ROA) is used to measure the overall effectiveness of generating profits with the available assets (Hendraliany, 2019; Khotimah et al., 2019). Companies with high profitability tend to rely on internal funds due to their abundance. Thus, profitability can strengthen the relationship between debt policy and firm value.

H3: Profitability moderates the relationship between company size and firm value.

H4: Profitability moderates the relationship between debt policy and firm value.

## **Method Research**

### **Population and sample**

The population in this study comprises all manufacturing companies listed on the Indonesia Stock Exchange (BEI) for the period from 2019 to 2021. The sampling procedure in this research was conducted using purposive sampling technique. This technique involves selecting samples based on specific criteria to represent the existing population. Several criteria used in the sampling process are as follows:

- a. Manufacturing companies listed on the BEI.
- b. Manufacturing companies listed on the BEI continuously from 2019 to 2021.

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c. Companies that report their financial statements in Indonesian Rupiah.

d. Companies that have achieved profitability from 2019 to 2021.

Based on the criteria, data were obtained from 168 observations over a 3-year observation period.

### Operational Variables

The independent variables in this study consist of company size, measured using the logarithm of total assets, and debt policy, measured using the debt-to-equity ratio (DER). The dependent variable in this study is firm value, measured using the price-to-book value (PBV), which represents the market price per share relative to the book value per share. The study also includes a moderating variable, profitability, measured using the proxy return on assets (ROA).

**Table 1. variable operasional**

Variabel	Dimensi	Indikator	Skala
Firm value	Price to Book Value (.)	PBV = last price / book value per share	Rasio
Company size	Ln Total Asset (Dirman, 2020))	Size = log <i>Natural (Ln) of Total Assets</i>	Rasio
Debt policy	Debt to Equity Ratio (Kasmir, 2016)	DER = liabilities / equitas	Rasio
Profitabilitas	Return On Asset (Kasmir, 2016)	ROA = Net income / total assets	Rasio

The analysis method employed in this study includes descriptive analysis, classical assumption tests, model fit tests, and moderated regression analysis (MRA) to test the hypotheses.

$$Y = \alpha + \beta_1 \text{Size} + \beta_2 \text{DER} + \beta_3 \text{Size} * \text{ROA} + \beta_4 \text{DER} * \text{ROA} + \epsilon$$

### III. RESULT AND DISCUSSION

#### Descriptive Test

**Table 2. Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Company size	168	19.85	33.53	28.63	2.17
DER	168	.003	4.772	.73262	.715387
ROA	168	.002	.866	.08390	.091233
PBV	168	.006	15.686	2.16604	2.324841
Valid N (listwise)	168				

1. The Company Size variable has a minimum value of 19.85 or Rp418, 630,902 belonging to PT. Alaska Industrindo Tbk in 2020. Meanwhile, the maximum value is 33.53 or Rp367,311,000,000,000 belonging to PT Astra International Tbk in 2021. Investors tend to pay attention to companies with high total assets as they tend to have stable financial conditions.
2. The DER variable has a minimum value of 0.003 or 0.3 percent belonging to PT Star Petrochem Tbk in 2020. Meanwhile, the maximum value is 4.772 or 477.2 percent belonging to PT Alaska Industrindo Tbk in 2019. On average, the debt-to-equity ratio of the companies is 0.73262 or 73.26 percent. This means that 73 percent of the equity of the researched companies is financed by debt.
3. The ROA variable has a minimum value of 0.002 or 0.2 percent belonging to PT. Semen Baturaja (persero) Tbk in 2020. This indicates that the company's ability to generate profit from its total assets is only 0.2 percent. This could be due to the impact of the COVID-19 pandemic. Meanwhile, the maximum value is 0.866 or 86 percent belonging to PT Arwana Citra Mulia Tbk in 2020. The average value is 0.08390 or 8.39 percent, meaning that on average, companies are able to generate a profit of 8.39 percent from their total assets.

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4. PBV is the ratio of stock price to book value per share.  $PBV < 1$  indicates that the stock price is undervalued. There are 67 companies with a PBV value below 1, with an average of 0.55, and the lowest value is 0.006. On the other hand, a very high PBV value  $> 1$  indicates a high stock price or overvaluation. It is worth noting that although a PBV below 1 is considered good, if the value is very low, it may indicate internal issues with the stock.

Classical assumption test

The following are the results of the classical assumption test:

**Table 3. Classical assumption test Result**

Model	Heteroskedastisitas		Collinearity Statistics	
	t	Sig	Tolerance	VIF
Size	.632	.528	.939	1.065
DER	-1.582	.116	.630	1.587
Size*ROA	-.159	.874	.117	8.559
DER*ROA	1.881	.062	.416	2.402
ROA	-.391	.696	.143	6.990

Durbin Watson: 1.204  
 One-Sample Kolmogorov-Smirnov Test: 0.200  
 Independent: ABS\_Res

Based on the table of classical assumption test results, this study has passed all classical assumption tests. The Kolmogorov-Smirnov Test shows a significance value of 0.200 or  $> 0.05$ , indicating that the research data is normally distributed. The multicollinearity test results can be observed through the tolerance and VIF values, where all variables show tolerance values  $> 0.1$  and VIF values  $< 10$ . This means that there is no multicollinearity in the regression model. Furthermore, the heteroscedasticity test using the Glejser test is conducted, where the condition is that the t-value is smaller than the t-table value and the significance value is greater than 0.05. The table of classical assumption test results shows that all variables have t-values  $< t$ -table and significance values  $> 0.05$ , indicating that there is no heteroscedasticity in the research data. Lastly, the autocorrelation test is performed using the Durbin Watson (DW) value. The decision is made based on the presence or absence of autocorrelation, with the condition of  $-2 < DW < 2$ . The classical assumption test results show a DW value of 1.204, indicating that  $-2 < 1.204 < 2$ . Therefore, it can be concluded that there is no autocorrelation (Santoso, 2012).

Model fit result

The following are the results of the model fit test obtained in the following table.

**Table 4. Model fit test result**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	-4.583	1.993		-2.300	.023
Size	.167	.069	.162	2.427	.016
DER	1.270	.256	.403	4.957	.000
Size*ROA	.214	.218	.185	.981	.328
DER*ROA	-14.980	3.938	-.380	-3.804	.000
ROA	15.167	4.342	.596	3.493	.001

Koefisien R Square: 0.334  
 Uji F: 0.000

In the table of model fit test results, the coefficient of determination (R-squared) is obtained as 0.334, indicating that 33.4% of the dependent variable can be explained by the independent variables included in the model, while the remaining 66.6% is explained by other variables not included in the research model. The F-test value shows a significance of 0.000, indicating that the model can be used to predict the dependent variable, or in other words, all the independent variables examined

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simultaneously are able to influence the firm value. In terms of the t-test or partial test, it can be observed that only the moderating variable size\*RoA has a significant value  $> 0.005$ , while the other variables have significant values  $< 0.05$ , indicating their influence on firm value. Based on Table 4, it can be concluded that hypotheses 1 and 4 are accepted, while hypotheses 2 and 3 are rejected.

### **DISCUSSION**

#### **The influence of company size on firm value**

Based on the hypothesis testing results, it is evident that firm size has a positive effect on PBV (Price Book Value) in Manufacturing Companies Listed on the Indonesia Stock Exchange (BEI) during the 2019 period. The positive direction indicates that as a company's assets increase, the firm value also tends to increase. This is because an increase in assets affects the book value, which in turn leads to an increase in the stock price in the capital market. Investors perceive that companies with larger assets tend to have stronger financial capabilities to support their performance, thus influencing the firm value. These research findings are consistent with a study conducted by Suryana in 2018, which stated that firm size has a positive effect on firm value.

#### **The influence of debt policy on firm value**

Based on the hypothesis testing results, the debt policy measured using DER (Debt-to-Equity Ratio) has a positive effect on PBV (Price Book Value). This means that an increase in the DER value will decrease the firm's PBV, contrary to the hypothesis and signaling theory. However, Sumanti & Mangantar (2015) explain that high debt is not always considered negative by investors. Some investors perceive that companies with high debt may indicate promising prospects in the future. This is because debt can enhance a company's operational activities by providing sufficient capital, allowing the company to survive and even grow, ultimately providing higher returns to investors and increasing firm value.

#### **Profitability moderating the influence of firm size on firm value**

Based on the hypothesis testing results, profitability measured using ROA (Return on Assets) is unable to moderate the relationship between firm size and firm value. This finding contradicts the expected theory, indicating that an increase in profits does not necessarily lead to an increase in total assets and firm value. This may be due to investors placing greater emphasis on the company's assets, as increased profits during the pandemic period can be influenced by earnings management. Therefore, investors do not solely rely on profitability ratios as the basis for purchasing stocks. These research findings align with a study conducted by Kusuma and Priantinah (2018), which states that profitability weakens the relationship between firm size and firm value.

#### **Profitability moderating the influence of debt policy on firm value**

Based on the hypothesis testing results, it is found that ROA does have an effect on the relationship between DER and PBV. When the ROA value decreases, it strengthens the relationship between DER and firm value. Similarly, when the ROA value increases, the high debt will lower the firm value. This type of moderation is referred to as pure moderation. Therefore, it can be concluded that an increase in company profits will lead to a decrease in debt and an increase in firm value. Conversely, when company profits decrease, high debt levels will lower the firm value. These research findings align with Maslukhah (2017), who states that profitability strengthens the relationship between debt policy and firm value.

### **IV. CONCLUSIONS AND SUGGEST**

#### **Conclusions**

1. Firm size has a positive influence on firm value, meaning that larger company assets tend to be a consideration for investors when making investments, as they are perceived as companies capable of effectively managing their operations.
2. Debt policy has a positive influence on firm value, indicating that having debt does not necessarily indicate a negative aspect but rather portrays potential future prospects for the company.
3. Profitability is unable to moderate the relationship between firm size and firm value.
4. Profitability is able to moderate the relationship between debt policy and firm value.

#### **Suggest**

This study used data from the year during the pandemic, which limited the length of the research period. In future studies, it is recommended to use a longer observation period and consider replacing the moderating variable with non-financial variables such as the presence of a board of directors.

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