

# Examining Firm Value Drivers: An Empirical Analysis of Property and Real Estate Companies on the Indonesian Stock Exchange

Original Research Article

## ABSTRACT

**Aims:** This study aims to investigate the impact of company size, leverage, and profitability on firm value using the price-to-book value (PBV) ratio as a proxy, focusing on property and real estate businesses listed on the Indonesia Stock Exchange (IDX).

**Study design:** The research adopts a correlational study design.

**Place and Duration of Study:** Indonesian Stock Exchange (IDX) issuers in 2021-2022.

**Methodology:** The study was conducted using data from Indonesian Stock Exchange (IDX) issuers during the years 2021-2022. The population comprised property and real estate businesses listed on the IDX, totaling 161 companies (76 in 2021 and 85 in 2022). The sample was determined through a census method, resulting in 123 valid samples after excluding 38 outlier data points identified through a normality test. Data collection was conducted through documentation, and analysis was performed using multiple linear regression in SPSS 24.

**Results:** The research findings indicate that company size, leverage, and profitability have a significant positive influence on firm value.

**Conclusion:** The study's results provide empirical support for signaling theory, demonstrating that enhancements in company size, leverage, and profitability positively impact firm value.

*Keywords: size, leverage, profitability and firm value*

## 1. INTRODUCTION.

The main goal of a public company is to increase prospects for owners by increasing the firm value [1]. This statement is in line with Brigham and Houston's opinion [2] that high firm value will increase shareholder prosperity. So, increasing firm value is a signal positive for investors in the capital market. Firm value can be measured with a ratio price book value (PBV) that compares price share with mark book per sheet share [2].

Several researchers state that various variables influence the firm's value, such as company size, leverage, and profitability. Company size significantly positively influences firm value [3, 4, 5, 6]. Company size is big and small companies that can be measured through big and small sales, total assets and equity. The larger the size of the company, the greater the source of power [7] and the greater the potential to obtain high income. Companies with an enhanced size will respond positively to the market to increase the firm's value.

Owolabi and Inyang [8] stated that publishing debt in large amounts positively affects investor confidence, so price share can increase, which, in turn, increases firm value. One of the debt ratios is leverage, namely the ability of a company to fulfil its obligations in the short and long term [9]. Leverage matters positively to mark company stated by Damayanti & Sucipto [10], Uddin et al. [11], Jihadi et al. [12] and Budiharjo [13]. That matters. This means that if leverage increases, firm value will also increase.

Income is a positive signal for the market, as proposed by Komara et al. [14]. The results of previous research also show that profitability has a significant positive effect on firm value, as stated by Nurmalityari & Durya [15], Saputri & Bahri [16] and Ibrahim & Isiaka [17]. This positive influence indicates that the firm value will increase if profits increase.

Property and real estate businesses listed on IDX are affected by the COVID-19 pandemic, experiencing a drastic drop in firm value measured with price book value (PBV), as shown in Table 1.

Table 1  
IDX Property and Real Estate Business PBV 2019-2022

Year	PBV	% Ups and (down)
2019	2.42	16
2020	1.4	(42)
2021	0.65	(54)
2022	0.52	(20)

Source: IDX Statistics [18, 19, 20, 21].

## 2. STUDY LIBRARIES AND DEVELOPMENT HYPOTHESIS

### 2.1. Signal Theory.

Signalling theory is closely related to company financial information; company executives will be encouraged to convey good information to investors (Ross, 1977). A large company size will be responded to well by the market. Simply put, the larger the company size, the more positive the signal from investors [23].

Owolabi and Inyang [8] stated that issuing large amounts of debt shows a positive signal for investor confidence, allowing share prices to increase and increasing company value. Leverage relationships and profitability with firm value can give a positive signal to the market whenever there is an increase in the price of shares [14].

### 2.2. The influence of company size on firm value.

Company size is the difference between big and small companies, which can be measured through big and small sales, total assets, and equity. The larger the size of the company, the greater the resource [7]. The market will positively respond to an increase in company size, increasing the firm's value. The company's large size results in investors paying more attention, raising the share price, which will raise the firm's value.

Research results Bahri et al. [3], Atiningsih & Izzaty [4], Bandanuji & Khoiruddin [5], and Husna & Satria [6] disclose that company size has a significant positive effect on firm value. The connection is positive. They indicated that if the company's size increases, the firm value will increase, causing an enhanced-size company to respond positively to the market. Based on this information, hypothesis 1 of this research is that company size positively affects firm value.

### 2.3. The effect of leverage on firm value.

Leverage is the ability of a company to fulfil its obligations in the short and long term [9]. Issuing large amounts of debt shows a positive signal for investor confidence so that share prices can increase, increasing firm value [8]. The results of previous research show that leverage has a positive effect on firm value, as stated by Damayanti & Sucipto [10], Uddin et al. [11], Jihadi et al. [12] and Budiharjo [13]. This means that if leverage increases, the firm value will also increase. Based on this information, hypothesis 2 of this research is that leverage positively affects firm value.

### 2.4. The effect of profitability on firm value.

Profitability is a company's ability to generate income from its assets and capital at a certain level of sales [2]. Profitability is the company's financial performance which shows the success of operational efficiency so as to obtain profits. Profit is good news for investors because it will impact the firm's value increase [14]. Previous research shows that profitability has a significant positive effect on firm value, as stated by Nurmalityari & Durya [15], Saputri & Bahri [16], and Ibrahim & Isiaka [17]. This positive influence indicates that the firm value will also increase if profits increase. Logically, a company that can generate high profits will have a high share price. The share price is high due to a positive market response, and the firm's value will increase sequentially over time. Based on this information, hypothesis 3 of this research is that profitability positively affects firm value.

On base review of the literature and hypotheses prepared, the research framework is as follows:

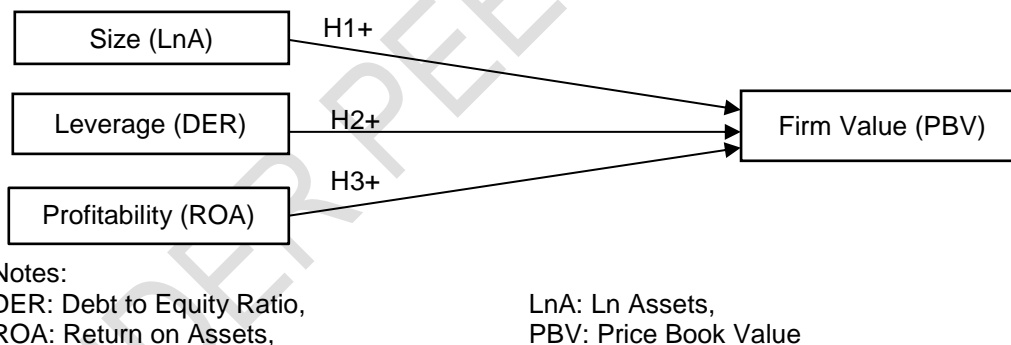


Figure 1

Research Framework

Source: developed in research this (2023)

## 3. RESEARCH METHODS.

The data in this research comes from report statistics annually on the Indonesian Stock Exchange (IDX) [20, 21], collected in way documentation from the publication of annual statistics on the Indonesian Stock Exchange for 2021 and 2022. The population is 76 real estate companies listed in 2021 and 85 companies in 2022, totalling 161 companies [20, 21]. The sample is determined based on the census method. However, there were 38 outlier data after the Normality test, so the sample end is 123. Data was analyzed using completed multiple linear regression with SPSS 24.

Equality multiple linear regression:  $PBV = \alpha_2 + \beta_1 \text{LnA} + \beta_2 \text{DER} + \beta_3 \text{ROA} + \epsilon$

Information:

PBV: Price Book Value, share price divided by the firm's book value [2].

DER: Debt Equity Ratio, debt divided by equity in percentage [17].

LnA: Ln Assets is the company's size measured by the Ln Assets indicator [3].

ROA: Return on Assets, net profit divided by total assets in percentage [2].

$\alpha$ : constant

$\beta_1, \beta_2, \beta_3$ : regression coefficients

$\epsilon$ : standard error

Before multiple linear regression is used for analysis and testing, assumptions are classical, and the feasibility of models and hypotheses with criteria are explained in the next chapters.

## 4. RESULTS AND DISCUSSION

### 4.1. Results of The Classical Assumption Test of Multiple Linear Regression.

#### a. Normality Test Results.

The Normality Test aims to find out whether, in the regression model, the dependent variable and the independent variable both have a normal distribution or not. A good regression model is a normal data distribution. The research uses a P-P Plot graph with normal criteria if the data points are around the diagonal line (Ghozali, 2016). Figure 2 shows these criteria, so this research data is normal.

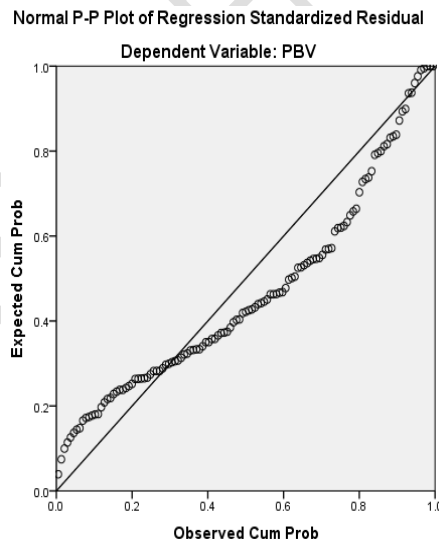


Figure 2. Normal PP Plot  
Source: Secondary data processed (2023)

#### b. Heteroscedasticity Test Results.

Linear regression criterion that is free from problems of heteroscedasticity if the scatterplot of points resulting from data processing between ZPRED and SRESID spreads below or above

the origin point (number 0) on the Y axis and does not have a regular pattern [24]. Figure 3 shows the criteria for the research data; this is free from the heteroscedasticity problem.

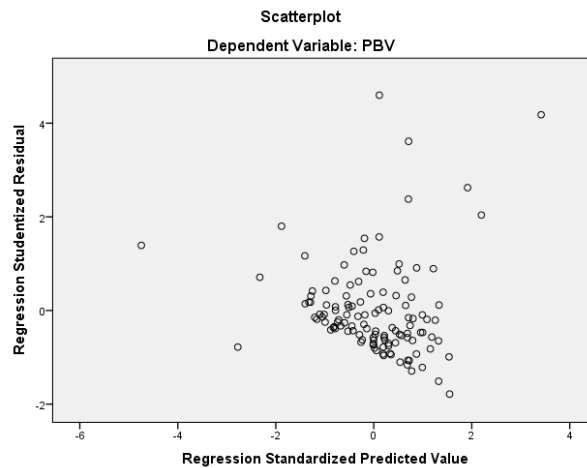


Figure 3. Heteroscedasticity Test Results  
Source: Secondary data processed (2023)

### c. Autocorrelation Test Results.

Based on Table 2, Durbin Watson's value is 1.867, while. Durbin Watson table value  $n=116$ , number of independent variables=3, with degrees 5% significance, is known to be  $DL=1.6445$  and  $DU=1.7504$ . Provision no, there is an autocorrelation problem if  $DU < D < 4-DU$ , then  $4-DU=4-1.7504=2.2496$ . The calculation results are  $1.6445 < 1.867 < 2.2496$ , so No autocorrelation problem occurs.

**Table 2 Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.478 <sup>a</sup>	.228	.209	.66536	1,867

a. Predictors: (Constant), ROA, DER, LnA

b. Dependent Variable: PBV

Source: Secondary data processed (2023)

### d. Multicollinearity Test Results.

The multicollinearity test determines the independent regression model from the correlation between independent variables. One method to diagnose the emergence of multicollinearity is to analyze the tolerance value and variance inflation factor (VIF), an indication that there is no multicollinearity problem if the number  $VIF < 10$  and  $Tolerance > 0.1$  [24]. Table 3 shows the criteria for the research data, free from the multicollinearity problem.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2,034	,283		7,196	,000		
	LnA	,169	,036	,386	4,683	,000	,956	1,046
	DER	,001	,000	,186	2,290	,024	,987	1,013
	ROA	5,937	1,635	,300	3,632	,000	,949	1,053

a. Dependent Variable: PBV

Source: Secondary data processed (2023)

#### 4.2. Model Feasibility Test Results.

Test the feasibility of the model aims to determine whether the results of equality regression are worthy of use for analyzing the processed data. To test the feasibility of the model, we can use statistics F; if the significance of the F value is small instead of 0.05, then the model is worthy or fit [24]. Table 4 shows that the sig value is 0.000, less than 0.05, so the regression model study is worthy.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	15,599	3	5,200	11,746	,000 <sup>b</sup>
	Residual	52,681	1199	,443		
	Total	68,281	122			

a. Dependent Variable: PBV

b. Predictors: (Constant), ROA, DER, LnA

Source: Secondary data processed (2023)

#### 4.3. Hypothesis Testing Results and Discussion.

Hypothesis testing uses the criteria for accepting a sig value of less than 0.05 [24], while the results of this research hypothesis are as follows:

- The variable LnA or company size (table 3) has a sig value of 0.000, less than 0.05, and has a positive coefficient of 0.169, meaning that company size significantly positively affects PBV; thus, hypothesis 1 is accepted. This positive and significant influence indicates that the larger the company size, the greater the company value (PBV). The research results are based on Brau and Carpenter's [23] predictions: the larger the company size, the more positively the market will respond. The results of this research also support research from Bahri et al. [3], Atiningsih & Izzaty [4], Bandanuji & Khoiruddin [5], and Husna and Satria [6], which reveal that company size has a significant positive effect on company value.
- The DER variable (table 3) has a sig value of 0.024, less than 0.05 and has a positive coefficient of 0.001, meaning that DER has a significant positive effect on PBV; thus, hypothesis 2 is accepted. The research results are based on signal theory, which states that issuing large amounts of debt shows a positive signal for investor confidence so that share prices can increase, increasing company value [8]. The results of this research also support the research of Damayanti & Sucipto [10], Uddin et al. [11], Jihadi et al. [12] and Budiharjo [13] that leverage has a positive effect on company value.

- c. The ROA variable (table 3) has a sig value of 5,937, less than 0.05 and has a positive coefficient of 5,937, meaning that ROA significantly positively affects PBV; thus, hypothesis 3 is accepted. The greater the profit value, the more positive the signal will be so that share prices will rise, as Komara et al. [14] stated. The results of this research also support research from Nurmalityari & Durya [15], Saputri & Bahri [16] and Ibrahim & Isiaka [17] that profitability has a significant positive effect on company value. In other words, increasing the company's financial performance will increase the company's value.

## 5. CONCLUSION.

The theme of this research is company value as proxied by price to book value (PBV). The research results show that company size, leverage, and profitability positively affect firm value. Increasing these will increase firm value.

This research is limited because the sample of companies studied is only property and real estate companies on the Indonesia Stock Exchange. Hence, the results need to be sufficiently representative of all companies in Indonesia. Besides that, the Adjusted R Square result of 0.209 shows only 20.9% Ln. Assets, DER and ROA can explain their influence on PBV; other variables explain the remaining 79.1%. Therefore, future research can expand the company's objectives and add variables.

The results of this research contribute to the application of signalling theory by providing empirical evidence of the influence of company size, leverage, and profitability on firm value. They also provide an additional reference for similar research in the future. For business practitioners, the results of this research contribute to policies to increase firm value through increasing company size, leverage, and profitability.

## REFERENCES

- [1] Salvatore, D. (2007). *Managerial Economics in the Global Economy*. New York: Oxford University Press.
- [2] Brigham, E. F., & Houston, J. F. (2015). *Fundamentals of Financial Management*. USA: Cengage Learning.
- [3] Bahri, A. S., Saefullah, K. & Anwar, M. (2022). The Effect of Firm Size and Leverage on Financial Performance and Their Impact on Firm Value in Food and Beverage Sector Companies Listed on The Indonesia Stock Exchange. *Journal of Business Studies and Management Review*, 5(2), 208–214.
- [4] Atingsih, S. & Izzaty, K. N. (2021). The Effect of Firm Size on Company Value with Profitability as an Intervening Variable and Dividend Policy as a Moderating Variable. *International Journal of Economics, Business and Accounting Research*, 5(4), 378-388.
- [5] Bandanuji, A. & Khoiruddin, M. (2020). The Effect of Business Risk and Firm Size on Firm Value with Debt Policy as Intervening Variable. *Management Analysis Journal*, 9(2), 200-210.
- [6] Husna, A., & Satria, I. (2019). Effects of Return on Assets, Debt to Asset Ratio, Current Ratio, Firm Size, and Dividend Payout Ratio on Firm Value. *International Journal of Economics and Financial Issues*, 9(5), 50-54.
- [7] Choi, B. B., Lee, D. & Psaros, J. (2013). An Analysis of Australian Firm Carbon Emission.

- [8] Owolabi, S. A., & Inyang U. E. (2013). International Pragmatic Review and Assessment of Capital Structure Determinants. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 2(6), 82-95.
- [9] Jeleel, A., & Olayiwola, B. (2017). Effect of Leverage on Firm Performance in Nigeria: A Case Of Listed Chemicals and Paints Firms In Nigeria. *Global Journal of Management and Business Research*, 17(2), 14-24.
- [10] Damayanti, R. & Sucipto, A. (2022). The Effect of Profitability, Liquidity, and Leverage on Firm Value with Dividend Policy as Intervening Variable. *International Journal of Economics, Business and Accounting Research*, 6(2), 863-876.
- [11] Uddin et al. (2022). Leverage Structure Dynamics and Firm Value: Evidence from Bangladesh. *International Journal of Asian Business and Information Management*, 13(1), 1–17.
- [12] Jihadi et al. (2021). The Effect of Liquidity, Leverage, and Profitability on Firm Value: Empirical Evidence from Indonesia. *Journal of Asian Finance, Economics and Business*, 8(3), 423-431,
- [13] Budiharjo, R. (2020). Effect of Environmental Performance, Good Corporate Governance and Leverage on Firm Value. *American Journal of Humanities and Social Sciences Research*, 4(8), 455-464.
- [14] Komara, A., Ghozali, I., & Januarti, I. (2019). Examining the Firm Value Based on Signaling Theory. *Advances in Economics, Business and Management Research*, Volume 123, 1-4.
- [15] Nurmalityari, N. & Durya, N. P. M. A. (2022). The Effect of Firm Size, Return on Equity, and Leverage on Firm Value. *International Journal of Economics, Social Science, Entrepreneurship and Technology*, 1(4), 271-278.
- [16] Saputri, D. R., & Bahri, S. (2021). The Effect of Leverage, Profitability, And Dividend Policy on Firm Value. *International Journal of Educational Research & Social Sciences*, 1316-1324.
- [17] Ibrahim, U. A., & Isiaka, AQ (2020). Effect of Financial Leverage on Firm Value: Evidence from Selected Firms Quoted on the Nigerian Stock Exchange. *European Journal of Business and Management*, 12((3), 124-135.
- [18] Indonesia Stock Exchange (IDX) - Data Services Division (2019). *IDX Statistics 2019*.
- [19] Indonesia Stock Exchange (IDX) - Data Services Division (2020). *IDX Statistics 2020*.
- [20] Indonesia Stock Exchange (IDX) - Data Services Division (2021). *IDX Statistics 2021*.
- [21] Indonesia Stock Exchange (IDX) - Data Services Division (2022). *IDX Statistics 2022*.
- [22] Ross, S. A. (1977). The Determination of Financial Structure: The Incentive Signaling Approach. *Bell Journal of Economics and Management Science*, 8(1), 23–40.
- [23] Brau, J. C., & Carpenter, J. T. (2012). Small-Firm Uniqueness and Signaling Theory. *Journal of Business, Economics & Finance*, 1(1), 50–63.
- [24] Ghozali, I. (2016). *Application Multivariate Analysis with the IBM SPSS Program*, Edition 8. Semarang: Publishing Agency University Diponegoro.