

## **Effects of Firm Size and Capital Structure on Firm Value (Empirical Study of Telecommunication Companies Listed on the Indonesia Stock Exchange for 2018-2021)**

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**Abstract**

**Purpose** - The purpose of this study is to determine the effect of firm size and capital structure on firm value using data from telecommunication companies listed on the Indonesia Stock Exchange in 2018-2021.

**Design/methodology/approach** - The method used is quantitative research with secondary data from 16 companies. The sample was taken using the purposive sampling method. This study used a multiple linear regression.

**Finding** - According to the research findings, (1) firm size has a significant positive impact and (2) capital structure does not. In this research model, the value of determination (R squared) is 0.110 or 11%. The calculated F value is  $3.202 > 3.175$  and the sig F value is  $0.049 < 0.05$ .

**Originality** -

**Keyword** - Firm Value, Firm Size, and Capital Structure

**Paper Type** – Research Paper



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## Introduction

In this era of globalization, the development of the business world is increasing very rapidly in both the service and manufacturing sectors, resulting in intense competition in the business world. Thus, companies must compete to achieve their company goals which are to increase shareholder wealth by generating firm value (Marantika, 2012). This is very important to assess the company as a whole. For creditors, company value shows that the company can pay off its debts, and creditors can feel safe in providing loans to the company. To attract the attention of investors and creditors, companies need to maximize performance and pay attention to factors that affect company value (Antoro et al., 2020). According to (Priyatama and Pratini, 2021) a number of variables capital structure, profitability, liquidity, and size, can influence firm value. Price Book Value (PBV) is the measurement method used in this study (Pangestuti et al., 2022).

Regarding firm value, there is an interesting condition in the telecommunications sub-sector. Based on the data seen in the IDX statistical report, there are 6 telecommunications companies that experienced a decline in share prices in 2020, which in March 2020 was the beginning of COVID-19. The following are 6 telecommunications companies that experienced a decline in 2020, namely:

**Table 1. Telecommunications Company Stock Price**

Company Name	2018	2019	2020	2021
PT Telkom Indonesia (Persero) Tbk	Rp 3.750	Rp 3.970	Rp 3.310	Rp 4.040
PT XL Axiata Tbk	Rp 1.980	Rp 3.150	Rp 2.730	Rp 3.170
PT Smartfren Telecom Tbk	Rp 78	Rp 138	Rp 67	Rp 87
PT Protech Mitra Perkasa Tbk	Rp 354	Rp 420	Rp 368	Rp 845
PT Bali Towerindo Sentra Tbk	Rp 1.560	Rp 1.090	Rp 800	Rp 875
PT Link Net Tbk	Rp 4.900	Rp 3.960	Rp 2.410	Rp 4.000

Source: [www.idx.co.id](http://www.idx.co.id) (2023), data processed.

From table 1 seen that there are 6 telecommunication companies that have experienced a decline in share prices in 2020, one of which is the shares of PT Telkom Indonesia Tbk (TLKM), down 16.6% year to date to the lowest level of IDR 3,310 (Kontan, 2021). The reason for this decline is because the Corona virus outbreak that has haunted Indonesia has made these foreign investors unwilling to continue taking risks by holding TLKM shares. A significant decline in share price is also anticipated to be countered by the presence of local investors. In addition, many domestic investors usually want to buy TLKM shares. Unfortunately, it cannot make up for the loss (Ajaib, 2020).

The term "firm size" refers to a company's size as measured by its total assets, sales and average sales (Riyanto, 2015). Investor interest in a company will increase as it grows in size because the companies positive development and expansion, which raise the firm value. When combined with pecking order theory, assets can be used to define the size of a firm, preventing companies with significant assets from incurring debt to cover their operating expenses. Research (Liswatin and Pramadan, 2022) states that firm size has a significant negative effect on firm value. Meanwhile, research (Priyatama and Pratini, 2021) has a significant positive effect. In this study, the measurement uses the natural logarithm (Ln) value of the total asset (Dewi and Damayanti, 2019).

When a corporation manages its capital structure effectively, it can cause the value of the company to improve (Irawati et al., 2021). Pecking order theory which governs the capital structure wants to use funds obtained from inside enterprises since it reduces risk. A study (Nurwulandari, 2021) found that capital structure has a negative effect but another study (Dewi & Damayanti, 2019) has a positive effect. To calculate it this study uses the Debt to Asset Ratio (DAR).

There are differences between research (Pangestuti et al., 2022) and (Al-Hunnayan, 2020) such as sample research years, research theories, research variables, companies studied and the influence of the COVID-19 pandemic as one of the causes of the rise and fall of company value. Researchers study telecommunications companies because the use of the services they provide continues to grow. This is supported by the results of a study conducted by (He et al., 2020) which found that although COVID-19 has a real negative impact on traditional Chinese industries, it also has a positive impact on emerging technology industries such as telecommunications.

This study was carried out to determine if company size and capital structure had a favorable impact on value, based on the phenomenon and the existence of research gaps in prior studies. This study aims to identify how value in telecommunications listed on the IDX in 2018–2021 is impacted by company size and capital structure.

## **Literature Review**

### **Pecking Order Theory**

The Myers & Majluf pecking order theory serves as the foundation for this study. It contends that corporations prefer internal funding over external funding because there is an information asymmetry between managers and outsiders regarding the order of funding. When the share price is overvalued, managers tend to issue shares (capitalize the overvalued price). Outsiders (the market) obviously do not want to be cheated. Therefore, when a new share issue is announced, the price will fall because the market interprets the share price as overvalued (Hayat et al., 2021).

### **Firm Value**

A company's achievement of a specific condition known as "firm value" is represented in the price at which it is traded on the stock market (Rahayu & Sari, 2018). When the firm's

value is high, the market or investors will believe in the company's current performance and prospects in the future (Hargiansyah, 2015).

### **Firm Size**

According to (Sembiring and Trisnawati, 2019) a firm size is determined by the amount of assets it possesses at anytime. Because it is anticipated that if a company's financial performance is strong, it will also be able to invest in other companies, a large firm size is thought of as an indication that indicates the amount of risk investors when investing in a firm. Given the company's strong financial performance, it is presumed that it will be able to meet all of its responsibilities to provide a return on investment. satisfy all of its commitments in order to give investors sufficient profits (Joni and Lina, 2010).

### **Capital Structure**

This is a long-term financing source recorded in the company for more than one year (Arifin, 2018). According to (Habibah and Andayani, 2015) companies usually choose to use internal capital as fixed capital while external capital is only an addition to financing when company funds are insufficient.

### **Research methodology**

This study uses quantitative research as its methodology. This study focuses on the size, structure, and value of telecommunications companies listed on the Indonesia Stock Exchange from 2018-2021. Annual statistical reports and company financial reports are used to collect data for this study. These reports can be accessed in the official IDX website and listed in the Indonesia Stock Exchange are included in the population. The sampling technique used was nonprobability and purposive sampling, with sample determination based on certain criteria, including: a) telecommunication companies listed on the IDX during the 2018-2021 research period. b) telecommunication companies that publish annual reports and complete financial data needed during the 2018-2021 research period. c) telecommunication companies that listed their shares on the IDX during the 2018-2021 research period. Based on these criteria, 16 companies were obtained, for a total of 64 data and analysis method uses the SPSS v25 application.

**Table 2. Operational Definitions of Variables**

<b>Variable</b>	<b>Indicator</b>	<b>Scale</b>
Firm Size (X1)	Ln (total asset)	Ratio
Capital Structure (X2)	DAR = total liabilities / total asset	Ratio
Firm Value (Y)	PBV = share price / book value	Ratio

## Finding

### Descriptive Statistics

There are 55 outliers of data, this is due to the existence of extreme value data that produces abnormal data.

**Table 3. Descriptive Statistics**

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std.Dev</b>
PBV	55	0.50	4.81	2.0616	1.09364
LnTA	55	25.69	33.26	29.8429	2.00106
DAR	55	0.09	1.00	0.5578	0.24440
Valid N (listwise)	55				

Source : Data processed by researchers, 2023.

Based on table 3, it is shown that Y namely PBV the minimum value is 0.50 obtained by PT First Media Tbk. in 2019 and the maximum value is 4.81 obtained by PT LCK Global Kedaton Tbk. in 2018. PBV an average value is 2.0616 and the standard deviation is 1.09364. In X1 namely LnTA the minimum value is 25.69 obtained by PT LCK Global Kedaton Tbk. in 2018 and 2019, the maximum value of 33.26 obtained by PT Telkom Indonesia (Persero) Tbk. in 2021, LnTA an average value is 29.8429 and the standard deviation is 2.00106. In X2 namely DAR the minimum value is 0.09 obtained by PT LCK Global Kedaton Tbk. in 2020, the maximum value of 1.00 obtained by PT Visi Telekomunikasi Infrastruktur Tbk. in 2020 and 2021, DAR an average value is 0.5578 and the standard deviation is 0.24440.

## Multiple Linear Regression

**Table 4. Multiple Linear Regression**

<b>Model</b>
--------------

Variable	Beta	T	Sig.
(Constant)	-3.574		
LnTA	0.202	2.530	0.014
DAR	-0.698	-1.069	0.290
R squared	0.110		
Adj R squared	0.075	*The 0.05 level. *Dependent variable: PBV.	
F	3.202		
Sig. F	0.049		

Source : Data processed by researchers, 2023.

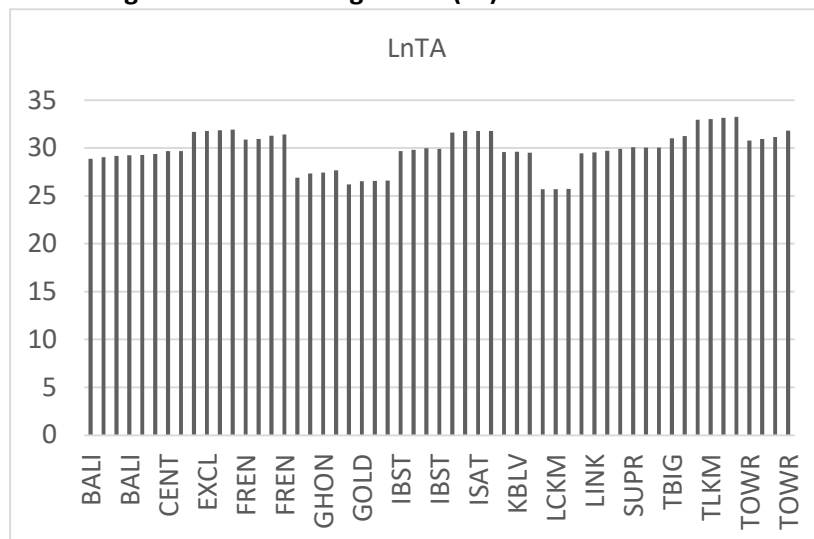
Based on table 4 above, the data in this study can be organized with the following mathematical equation:

$$\text{PBV} = -3.574 + 0.202 \text{ LnTA} - 0.698 \text{ DAR}$$

The regression analysis results are interpreted as  $\alpha = -3.574$ . Where LnTA and DAR are worth (0) then the company value (PBV) will still be worth -3.574. The regression coefficient  $\beta_1 = 0.202$  indicates that for every increase in company size of 1, it will increase by 0.202. The regression coefficient  $\beta_2 = -0.698$  indicates that for every increase in capital structure of 1, the company value will decrease by -0.698. It states that the determination value (R squared) in this research model is 0.110 or 11%. This demonstrates that while the independent variables in this study can account for 11% of their impact on the dependent variable, the remaining 89% is influenced by other factors not included in this research model. F test indicates that the computed F value is 3.202 which is higher than 3.175. The PBV variable is therefore influenced by the DAR and LnTA variables. According to the aforementioned data, it can be inferred that the DAR and LnTA variables significantly affect PBV if the sig value is  $0.049 < 0.05$ . These findings suggest that the study's model is of high caliber and passes the model feasibility test. T test, it is known that LnTA has a considerable positive influence on PBV because its sig value is  $0.014 < 0.05$  and the computed T value is  $2.530 > T \text{ table } 2.006$ . The DAR variable has no impact on PBV with a sig value of  $0.290 > 0.05$  and T count of  $-1.069 < T \text{ table } 2.006$ .

### The results of Firm Size on Firm Value

**Diagram 1. Natural Logarithm (Ln) Value Of Total Asset**



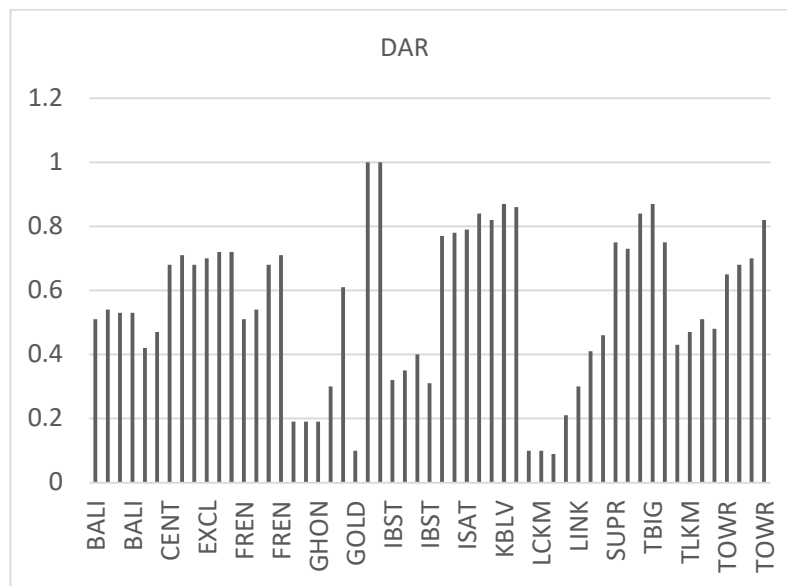
Source : Data processed by researchers, 2023.

According to diagram 1, the reason why firm size has a significant positive effect on value is that, after accounting for outliers, 15 telecommunications companies have a LnTA value of more than 25, all of which are positive, in the period 2018-2021. One of them PT Telkom Indonesia (Persero) Tbk. has a LnTA value of 32.96, 33.03, 33.14, 33.26, meaning that companies have large assets are relatively stable and able to generate large profits. This means that the larger the firm size, the higher the firm value, so that it is in accordance with the pecking order theory. According to pecking order theory, the size of a firm can be decided by the assets it has allowing businesses with substantial assets to make big profits without incurring debt to pay for their daily operations. The results of this study are in line with research conducted by (Priyatama and Pratini, 2021), (Patricia and Rusmanto, 2022),

and (Yulianti and Ramadhan, 2021) stating that firm size has a significant positive effect on firm value.

### The results of Capital Structure on Firm Value

**Diagram 2. Debt to Asset Ratio**



Source : Data processed by researchers, 2023.

Based on diagram 2, the reason why capital structure has no effect on value is because of the 15 telecommunication companies in 2018-2021 after outliers there are 9 companies that have a DAR value greater than 0.7, one of them PT Indosat Tbk. has a DAR value of more than 0.7, namely 0.77, 0.78, 0.79, and 0.84. A good DAR value is 0.6-0.7 (Ukminindonesia, 2022) while a DAR value greater than 0.7 means that the majority of the company's assets come from liabilities. If liabilities are greater than retained earnings, then the company can experience losses. This means that the size of the DAR value will not affect the value, so it is not in accordance with the pecking order theory. It explains that companies prefer to use funds received from internal companies because it minimizes risk. The results are in line with research conducted by (Irawan and Kusuma, 2019) which states that capital structure has a negative and insignificant effect on firm value.

### Conclusion

This conclusion can be drawn from the study's findings and discussion:

1. Firm size has a significant positive effect on firm value in telecommunications



- companies listed in the IDX for the 2018-2021 period, namely the calculated T value  $2.530 > T \text{ table } 2.006$  and the significance value is below 0.05. The determination value (R squared) in this research model is 0.110 or 11%. The calculated F value is  $3.202 > 3.175$  and it is known that if the sig F value is  $0.049 < 0.05$ .
2. Capital structure has no effect on firm value in telecommunication companies listed in the IDX for the 2018-2021 period, namely the calculated T value  $-1.069 < T \text{ table } 2.006$  and the significance value is above 0.05.

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