

The Effect of Capital Structure, Firm Size, and Institutional Ownership on Firm Value with Profitability as a Mediating Variable In Pharmaceutical Companies Listed on the Indonesia Stock Exchange in 2020-2023

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Abstract

This research aimed to examine the impact of capital structure, firm size, and institutional ownership on firm value, with profitability acting as a mediating variable. The study utilized secondary data from the annual reports and financial statements of pharmaceutical sub-sector companies listed on the Indonesia Stock Exchange for the period 2020-2023. Using Smart-PLS software, the results revealed that capital structure negatively affects profitability, while firm size and institutional ownership do not influence profitability. Additionally, capital structure, firm size, and institutional ownership were found to have no effect on firm value. However, profitability positively impacts firm value, yet when mediated by profitability, capital structure, firm size, and institutional ownership do not affect firm value.

Keywords: *Capital Structure, Company Size, Institutional Ownership, Profitability, Firm Value*

INTRODUCTION

The pharmaceutical subsector plays a role in health reform. Drug availability is critical given Indonesia's growing population and increasing health awareness. Increased per capita health expenditure is also driving the growth of the national pharmaceutical industry. (Surmadewi & Saputra, 2019). The pharmaceutical sector has a direct impact on public health by providing medicines and health products, supporting the prevention, diagnosis and treatment of diseases. Economically, the sector creates jobs, contributes to national income, and drives growth. Self-reliance in drug production also reduces import dependency, creating economic stability and health supply.

Government programs such as BPJS Kesehatan make access to medicines easier for all groups, which can increase drug sales. Theoretically, this also has an effect on the profits, share prices and dividends of related companies (Dompak Pasaribu, 2017). The share price is the focus of investors when buying and selling shares because when investors want to buy shares, investors expect the price to fall, and when they want to sell shares, investors want a high price (Putri et al., 2023).

Firm value is defined as market value because it can maximize shareholder wealth or profit. When the share price increases, shareholder profits rise, attracting more investors. This increased demand for shares, in turn, boosts the company's value (Yuliusman & Kusuma, 2020). Firm value can be conceptualized as a reflection of the company's achievements and the degree of public trust it has garnered through its various experiences and developments from inception to the present (Yuliusman et al., 2022).

Some factors that affect firm value include capital structure, firm size, institutional ownership, and profitability. Capital structure describes the proportion between long-term debt and equity used as a source of corporate funding. It is the combination of long-term funding utilized by the company. Good fund management can positively influence the company's performance (Krisnando & Novitasari, 2021). Firm size reflects the total wealth owned. Investors tend to have high expectations of large companies, including higher dividend expectations. Larger size attracts investors, which can lead to higher share prices and increased firm value (Hirdinis, 2019).

Institutional ownership is crucial for overseeing and evaluating management performance, with supervision carried out both from inside and outside the company. Institutional investors, through their supervision, are expected to improve management performance. A high level of institutional ownership usually encourages more intensive supervision (Pertiwi & Hermanto, 2017). Profitability refers to a company's capacity to generate profits, which is reflected in the profit earned through sales and income from investment (Novika & Siswanti, 2022).

Increasing institutional ownership, assets, and net income should increase stock prices, but in practice, increasing assets and net income can also reduce stock prices. The same applies to the increase in the company's total debt, which should make the stock price decrease, but in practice, the increase in total debt also makes the stock price increase.

RESEARCH METHODS

This research focuses on pharmaceutical subsector companies listed on the Indonesia Stock Exchange in 2020-2023. This research uses a quantitative approach, utilizing secondary data. The study examines a population of 10 companies, but one company did not list in 2023, so a sample of 36 from 9 companies in a 4-year period was obtained. Data collection in this study used documentation techniques. The approach used by researchers in analyzing data is Structural Equation Modeling with the Partial Least Squares (SEM-PLS) type, which is a statistical method for modeling the relationship between latent variables. This analysis was conducted using SmartPLS Version 3.0 software.

RESULTS AND DISCUSSION

Descriptive Statistics Analysis

Descriptive statistical analysis is employed to summarize the variables under investigation. The data for this study are drawn from the financial and annual reports of 9 pharmaceutical companies listed on the Indonesia Stock Exchange for the period 2020 to 2023. The results of the descriptive statistical analysis are displayed in the table below:

Table 1. Descriptive Statistics Analysis

No	Variable	Mean	Median	Min	Max	Standar Deviation
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1	DER	0,862	0,45	-1,994	3,824	1,129
2	DAR	0,498	0,338	0,171	2,058	0,426
3	Total Assets	25,887	28,328	27,667	30,928	8,428
4	Total Sales	25,149	28,268	27,681	31,047	9,037
5	Institutional Ownership	0,576	0,775	0,81	0,921	0,352
6	ROE	0,827	0,112	-4,962	0,896	0,863
7	EPS	2,238	2,3	-0,327	73,601	2,668
8	ROA	0,554	0,703	-0,279	0,27	0,102
9	PBV	2,574	2,223	-2,331	7,496	2,07
10	Tobin's Q	2,222	1,921	0,122	6,517	1,582
11	PER	1,987	1,781	-8,318	9,912	3,455

Outer Model Evaluation

Table 2. Covergen Validity

	Capital Structure	Company Value	Institutional Ownership	Profitability	Firm Value
DER	0,772				
DAR	0,861				
Total Assets		0,671			
Total Sales		0,952			
Institutional Ownership			1.000		
ROE				0,744	
EPS				0,733	
ROA				0,892	
PBV					-0,006
Tobin's Q					0,111
PER					0,954

All indicators on Capital Structure, Firm Size, Institutional Ownership, and Profitability have a loading factor value above 0.5, so they are categorized as valid. However, in the Firm Value indicator, only the PER indicator is classified as valid. Therefore, the researcher removed the value of the invalid variable indicator (Firm Value) to calculate the Average Variance Extracted (AVE) value.

Average Variance Extracted (AVE)

Table 3. Average Variance Extracted (AVE)

	Cronbach's Alpha	Composite Reliability (rho_A)	Composite Reliability (rho_C)	Average Variance Extracted (AVE)
Capital Structure	0.510	0.523	0.802	0.669
Firm Size	0.585	0.752	0.814	0.690
Institutional Ownership	1.000	1.000	1.000	1.000
Profitability	0.703	0.746	0.834	0.629
Firm Value	1.000	1.000	1.000	1.000

All of these constructs are considered valid because they have an AVE value above 0.5.

Discriminant Validity

Table 4. Cross Loading

	Capital Structure	Firm Size	Institutional Ownership	Profitability	Firm Value
DER	0,776	0,06	-0,228	-0,389	0,212
DAR	0,858	0,068	-0,017	-0,528	-0,017
Total Assets	-0,05	0,716	-0,038	-0,014	0,077
Total Sales	0,128	0,931	-0,112	-0,103	0,071
Institutional Ownership	-0,137	-0,101	1.000	0,077	-0,112
ROE	-0,218	-0,061	-0,056	0,749	0,449
EPS	-0,45	-0,142	-0,021	0,723	0,242
ROA	-0,612	-0,015	0,201	0,896	0,312
PER	0,104	0,085	-0,112	0,408	1.000

Inner Model Evaluation

Table 5. Path Analysis

	Original Sample (O)	Average Sample (M)	Standard Deviation (STDEV)	T Statistic (O/STDEV)	P Values
CS -> FV	0,086	0,028	0,337	0,255	0,799
CS -> P	-0.564	-0.624	0.149	3,387	0.000

FS -> FV	0.069	0.075	0.121	0.572	0.568
FS -> P	-0.041	0.066	0.181	0.225	0.822
IO -> FV	-0.094	-0.118	0.174	0.538	0.592
IO -> P	-0.004	-0.003	0.185	0.024	0.981
P -> FV	0.693	0.526	0.344	2.015	0.047

Based on the output, it can be concluded that capital structure has no effect on firm value, with P value of $0.799 > 0.05$. However, capital structure affects profitability, with a P value of $0.000 < 0.05$, and shows a negative direction of influence with a parameter coefficient of -0.564.

Firm size has no effect on firm value, with a P value of $0.568 > 0.05$. In addition, company size also has no effect on profitability, with a P value of $0.822 > 0.05$.

Institutional ownership has no effect on firm value, with a P value of $0.692 > 0.05$. In addition, institutional ownership also has no effect on profitability, with a P value of $0.981 > 0.05$. Profitability affects firm value, with a P value of $0.047 < 0.05$, and shows a positive direction of influence with a parameter coefficient of 0.693.

Table 6. Specific Indirect Effects

	Original Sample (O)	Average Sample (M)	Standard Deviation (STDEV)	T Statistic (O/STDEV)	P Values
CS -> P -> FV	-0.391	-0.320	0.244	1,599	0.113
FS -> P -> FV	-0.028	-0.032	0.103	0,274	0.785
IO -> P -> FV	-0.003	-0.029	0.095	0.032	0.974

The correlation between capital structure and firm value through profitability shows T statistic value of 1.599 and P value of 0.113. Since T statistic $1.599 < 1.96$ and P value $0.113 > 0.05$, the result is not significant. This means that profitability does not mediate the effect of capital structure on firm value. The correlation between firm size and firm value through profitability shows T statistic value of 0.274 and P value of 0.785. Since T statistic $0.274 < 1.96$ and P value $0.785 > 0.05$, the result is not significant. This means that profitability cannot mediate the effect of company size on firm value. The correlation between institutional ownership and firm value through profitability shows a T statistical value of 0.032 and a P value of 0.974. Since T statistic $0.032 < 1.96$ and P value $0.974 > 0.05$, the result is not significant. This means that profitability cannot mediate the effect of institutional ownership on firm value.

Discussion

The findings of this study show that the capital structure negatively influences the company's profitability. This happens because as the company's ability to repay long-term debt improves, the available capital for generating profits diminishes (Prabowo & Sutanto, 2019). The study's results reveal that firm size does not influence profitability. The total assets a company

owns do not necessarily determine whether it will achieve high profitability. However, good asset management from firm management can increase profitability (Felicia & Viriany, 2023). The findings of this research indicate that institutional ownership has no effect on company profitability. Whether institutional ownership is high or low, it does not influence the company's financial performance due to information asymmetry between shareholders and managers. This allows managers, who have more in-depth information about the company, to control the company more effectively than shareholders (Sutrisno & Sari, 2020).

The study results indicate that capital structure does not impact firm value. A higher Debt to Equity Ratio (DER) is associated with lower stock prices, and vice versa. As the DER increases, the debt costs the company must pay also rise, which will have an impact on profitability which will decrease. This causes reduced investor interest which will affect the share price (Andriani et al., 2022). The study's findings indicate that company size does not influence firm value. A large asset base does not necessarily enhance investors' perceptions of the company (Setiadharna & Machali, 2017). The study results indicate that institutional ownership does not impact firm value because institutions are unable to effectively supervise management. This ineffectiveness is due to the information asymmetry between management and shareholders, which allows management to operate the company according to their own preferences (Sutrisno & Sari, 2020). The study results show that profitability positively impacts firm value. High profitability indicates strong performance prospects, which can enhance the firm's value. High profitability reflects positive prospects for the company, so investors tend to respond positively, which contributes to an increase in firm value (Sari & Sedana, 2020).

The study results indicate that profitability does not mediate the relationship between capital structure and firm value. The direct impact of capital structure on firm value is more significant than its indirect effect through profitability. Therefore, profitability does not serve as a mediator in this relationship. (Hirdinis, 2019). This study results indicate that profitability cannot mediate the relationship on firm size and firm value. The direct impact of firm size on firm value is more substantial than the indirect effect through profitability. Therefore, profitability does not act as a mediator between firm size and firm value (Pratama & Wiksuana, 2016). The study results indicate that profitability does not mediate the relationship between institutional ownership and firm value, high profitability will create conflicts between institutional parties and management, profits distributed in the form of dividends will benefit institutional shareholders who have a high percentage of ownership so that institutional owners will use their voting rights to support decisions that are more profitable for themselves (Mastuti & Prastiwi, 2021).

CONCLUSION

Research conducted on 9 pharmaceutical sub-sector companies over the period 2020-2023 shows some important findings. Capital structure was found to negatively affect profitability, as an increase in debt leads to higher interest costs, thereby reducing the company's net profit. In contrast, firm size and institutional ownership did not have a significant impact on profitability, indicating that the scale of operations and the proportion of

institutional ownership do not necessarily correlate with the level of corporate profits.

Furthermore, the study results reveal that capital structure, firm size, and institutional ownership do not influence firm value. This implies that the debt-to-equity ratio, total assets, total sales, and proportion of institutional ownership do not impact investors' view on the company's performance potential. However, profitability is proven to have a positively affect firm value, indicating that companies that are able to generate high profits tend to have a higher value from the perspective of investors and shareholders.

Additionally, this study shows that capital structure, firm size, and institutional ownership do not affect firm value through profitability as a mediating variable. In other words, increases in debt, assets, sales, or institutional ownership do not directly improve the firm's ability to generate higher profits, and thus do not result in a higher firm value from the market's viewpoint.

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