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THE EFFECT OF CAPITAL STRUCTURE ON PROFITABILITY IN HEALTH SECTOR COMPANIES LISTED ON THE INDONESIA STOCK EXCHANGE (IDX) FOR THE 2022-2024 PERIOD

Darul Hikam Idrissyah[1]
Universitas Cokroaminoto Yogyakarta, Yogyakarta, Indonesia
darulhikam16@gmail.com

Retno Kurnianingsih[2]
Universitas Cokroaminoto Yogyakarta, Yogyakarta, Indonesia
retnokurnianing84@gmail.com

Abstract

This study intends to examine the influence of capital structure on Profitability in health sector companies listed on the Indonesia Stock Exchange (IDX) during 2022–2024. The capital structure used in this study was proxied with DAR and DER, while Profitability was measured by ROA. This study uses a quantitative approach with multiple linear regression analysis methods. The study sample consisted of 18 companies through purposive sampling techniques from a total population of 35 companies. The results of the analysis showed that the DAR variable had a negative and significant influence on Return on assets (ROA), while the DER did not show a significant influence. Simultaneously, these two independent variables have been shown to have a significant effect on ROA. These findings confirm the importance of managing capital structures, especially the use of debt in influencing the company's Profitability performance in the health sector.

Keywords: Capital Structure, Debt to Asset Ratio, Debt to Equity Ratio, Profitability, Return on Assets

INTRODUCTION

In an increasingly competitive business world, companies need to manage their finances well to achieve the best profit rate. Efficient financial management involves strategic planning, proper allocation of resources, and the implementation of financial policies that are aligned with the company's long-term goals.

Companies in the health sector have an important role in the Indonesian economy, especially after the COVID-19 pandemic, which has increased awareness of the importance of health services. Companies in this sector are required to have good financial performance so that they can continue to develop and provide maximum service. Regulatory changes in the health sector, including service tariff policies and subsidy mechanisms, have significant implications for funding decisions taken by healthcare institutions (Rasulong 2024). Given that the sector requires substantial investment in the procurement of medical equipment as well as infrastructure development, efficient financial management is an important factor in maintaining financial stability and Profitability.

One of the important aspects of a company's financial management is the capital structure (Ndruru et al. 2024). Capital structure is the amount of long-term debt and own capital that the company controls in carrying out its activities (Rumasukun, Nurwidianto, and Soukotta 2019). A strong and stable financial position can be achieved with an ideal capital structure. (Nugraha and Riharjo 2022).

Study on the effect of debt-to-assets ratio (DAR) and debt-to-equity ratio (DER) on Profitability. A lot has been done, but the resulting findings are still different. Studies carried out by (Ilyas 2024) say DAR has an influence on ROE, and DER has no effect on the *ROE*. These findings differ from the study (Zatira, Hamdani, and Erdawati 2021) that found that DAR had no effect on ROA, and DER had an effect on ROA previous studies also by (Nursyam, Amtiran, and Makatita 2020) found that DER and DAR had an effect on ROA.

REVIEW OF LITERATURE

Trade Off Theory

(Umdiana 2020) Stating that companies must consider a balance between the benefits of using debt, such as tax efficiency, with the potential losses that arise from increased risk of bankruptcy. If the benefits of the debt outweigh the risks, then the debt can be used. However, if the risk outweighs the benefits, the use of debt should be stopped. The goal is to achieve an optimal capital structure to maximize the company's value.

Pecking Order Theory

According to (Amalia and Bambang Suryono 2022) that companies tend to prioritize financing from retained earnings, then short-term debt, and finally the issuance of shares. This is done to minimize risks and information costs, with the main goal of maximizing the welfare of shareholders. While (Adinda Yasmine 2023) states that the company prioritizes internal financing, such as retained earnings, because it does not affect ownership. If it is not enough, the company chooses debt first before issuing shares, according to the order of financing preferences.

Capital Structure

The capital structure is a company's financing structure consisting of a combination of debt and equity, which has a strategic role in supporting the company's operational

activities and investment funding (Ardhana et al. 2024). Choosing the right structure can affect a company's performance and value (Njo and Jonnardi 2022). According to (Rosiqin and Masarroh 2024) besides Profitability and the size of the company, the capital structure is also influenced by external factors such as market conditions and monetary policy. Therefore, the capital structure is a strategic decision to optimally balance funding to increase the company's value.

Debt to Asset Ratio (DAR)

DAR is a comparison that describes the proportion of all liabilities related to the company's total assets (Ina Urifah et al. 2024). This ratio shows the large share of the company's assets funded using debt. The higher the DAR, the greater the company's dependence on loan funds in financing its assets. This ratio can be calculated with the formula:

$$\text{Debt to Asset Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

Debt to Equity Ratio (DER)

DER Estimate the ratio of all debt to all the equity the company owns. DER describes the amount of company capital derived from external funds compared to funds *internal* (own capital). This ratio is very important for investors and creditors because it indicates the level of *leverage* company. A high level of DER indicates that companies rely more on debt financing than equity, which has the potential to increase returns for shareholders, but at the same time increases the risk of default. (Away, Wokas, and Rondonuwu 2024). DER can be calculated by the formula:

$$\textit{Debt to Equity Ratio} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

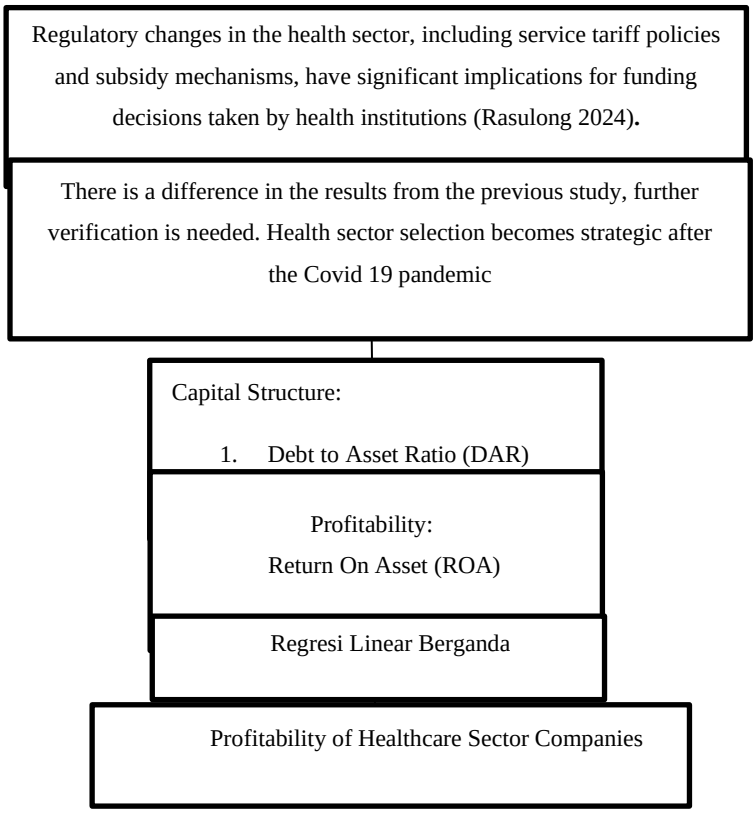
Profitability

Profitability is a financial performance indicator that describes the company's capacity to generate profits from its operational activities in a certain period. Level of Profitability high indicates the efficiency of resource management and the effectiveness of the business strategy implemented by the company in creating economic value (Pradhana and Adi 2022). One of the commonly used indicators is ROA, which shows the effectiveness of the use of assets in obtaining profits. The greater the realization of an entity's ROA assets, the greater the total value obtained from all the assets it owns. On the other hand, a low ROA value shows that the company is in a loss-making condition. (Pratama, Prapanca, and Sriyono 2024).

Hipotesis

H1 : DAR has a significant effect on ROA
H2 : DER has a significant effect on ROA

Table 1.
Frame of Mind



RESEARCH METHOD

This study is quantitative. The data is sourced from the financial statements of health sector companies on the Indonesia Stock Exchange from 2022–2024. There were 35 companies in the population, and 18 companies were selected as samples through *purposive sampling*. The companies that are the object of this study are health sector companies that are consistently listed as issuers on the Indonesia Stock Exchange during the 2022-2024 period, with the criteria of not experiencing losses and routinely presenting complete and published annual financial statements during the period. This study uses multiple linear regression as a statistical analysis method. This method is used to digest the extent of the impact of capital structure variables, calculated through DAR and DER, on the level of Profitability. Here's a model of the regression equation in this study:

$$Y= a+b1x1+b2x2+e$$

Note:
Y = Profitability
a = Konstanta

x1 = DAR
x2 = DER
b = Cowphysin
E = *Error term* (residual)

RESULTS AND DISCUSSION

Descriptive Statistical Test Results

Tabel 4.1 Uji Descriptive Statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
DAR	54	15639819.00	802678609.0	289265530.0	178930425.0
DER	54	1967958.00	4067874269	524735121.1	729093142.5
ROA	54	1102965.00	297243012.0	78213832.30	70309171.92
Valid N (listwise)	54				

Source: SPSS 27

The results of the descriptive statistical test from data processing with SPSS on 54 study samples showed that DAR had a minimum value of 15,639,819, a maximum value of 802,678,609, with an average value (*Mean*) of 289,265,530 and the standard deviation (standard deviation) of 178,930,425. This shows that the average level *leverage* Assets to the company's total liabilities are relatively high, with considerable variation between companies.

DER shows a minimum value of 1,967,958, a maximum value of 4,067,874,269, with an average value of 524,735,121 and a standard deviation of 729,093,142. The magnitude of the standard deviation exceeding the average value indicates a very high degree of variation in the use of debt to equity among the observed companies.

ROA, the minimum value obtained is 1,102,965, the maximum value is 297,243,012, with an average of 78,213,832 and a standard deviation of 70,309,171. This shows that the performance of Profitability Companies based on total assets show a fairly high average, but there is also a large variation between companies.

Overall, the results of these descriptive statistics reflect that each variable has a fairly wide data distribution, which indicates that there is inequality between companies in terms of capital structure and Profitability.

Classic Assumption Test

Normality Test

Tabel 4.2 Uji Normalitas

One-Sample Kolmogorov-Smirnov Test

			Unstandardized Residual
N			54
Normal Parameters[a,b]	Mean		.0000000
	Std. Deviation		61777843.22
Most Extreme Differences	Absolute		.107
	Positive		.107
	Negative		-.074
Test Statistic			.107
Asymp. Sig. (2-tailed)[c]			.182
Monte Carlo Sig. (2-tailed)[d]	Sig.		.124
	99% Confidence Interval	Lower Bound	.115
		Upper Bound	.132

Source: SPSS 27

Normality test using the One Sample technique *Kolmogorov-Smirnov* Indicates significance value *(Asympt. Sig. 2-tailed)* by 0.182, which is greater than the set significance level, which is α = 0.05. Therefore, it can be concluded that the residue is distributed normally.

Multicollinearity Test

Value *Tolerance* for the DAR and DER variables are 0.738, respectively, and the values *Variance Inflation Factor* (VIF) for both variables is 1.354. The results of the multicollinearity test are shown in the Coefficient table.

Tabel 4.3 Uji Multikolinearitas

Coefficients[a]			
Model		Collinearity Statistics	
		Tolerance	VIF
1	DAR	0,738	1,354
	DER	0,738	1,354
a.Dependen Variabel : ROA			

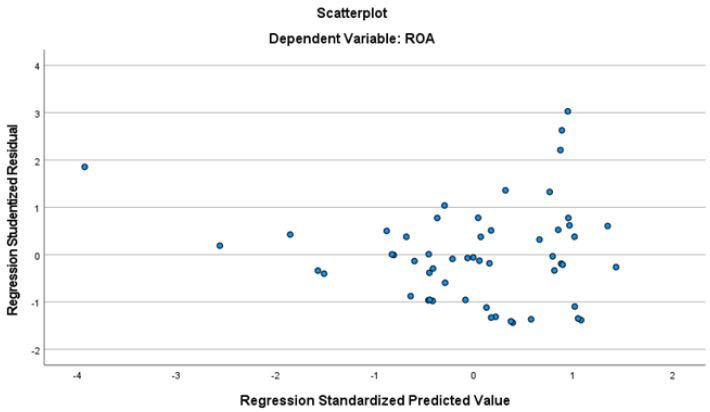
In regression analysis, a model is considered to have no multicollinearity problem if the value of *Tolerance* above 0.10 and the VIF value below 10. As a result, both variables *independent* The ones in this model meet these criteria. Therefore, it can be concluded that in the regression model used, there is no symptom of multicollinearity between variables *independent* DAR and DER. This shows that there is no significant correlation between the

independent variables from each other. As a result, to understand the influence of each variable on ROA, regression models can be used.

Heteroscedasticity Test

Based on the results of the heteroscedasticity test visualized through *scatterplot* between the values *residual studentized* with standardized prediction values (*standardized predicted value*), it is obvious that the scattering point does not create a special shape, either a scattering pattern (*fan shape*) or shrinking, tends to be scattered randomly around the zero axis.

Gambar 4.1 Uji Heterokedastisitas



Source: SPSS 27

The form of random residual distribution reflects a variety of residuals with constant character *(homoskedastis)* in all coverage of predictive values. This indicates that the regression model does not contain any indication of heteroscedasticity, thus covering some important conjectures in multiple linear regression. Absence of symptoms *heteroskedastisitas* This implies regression is applied estimating parameters that are efficient and free from bias in predicting variables *depend on*, i.e. ROA.

Autocorrelation Test

Tabel 4.4 Uji Autokorelasi

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.477[a]	.228	.198	62977524.99	.835

a. Predictors: (Constant), DER, DAR

b. Dependent Variable: ROA

Source: SPSS 27

Based on the output results, Model Summary, obtained a Durbin-Watson value of 0.835. These values are used as indicators to identify the presence of autocorrelations in regression models, specifically first-order autocorrelations (first-order autocorrelation). The Durbin-Watson scale is in the range of 0 to 4, with the interpretation that a value close to 2 indicates no autocorrelation, a value of < 2 indicates a positive autocorrelation, and a value

of > 2 indicates a negative autocorrelation. Thus, the Durbin-Watson value of 0.835, which is significantly below the number 2, indicates a strong indication of positive autocorrelation in the analyzed regression model.

Multiple Linear Regression Analysis Test

Table 4.5 Multiple Linear Regression Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	128694967.4	16437442.20		7.829	<,001
	DAR	-.145	.056	-.370	-2.581	.013
	DER	-.016	.014	-.168	-1.170	.247

a. Dependent Variable: ROA

From the results of multiple linear regression analysis presented in the table *Coefficients*, the equation is obtained:

Y= 128694967.4+(-0.145)+(-0.16)+e

The regression coefficient of the DAR variable was -0.145 with a significance value (Sig.) of 0.013. Because this value is below the significance threshold of 5% (α = 0.05), so that DAR has a negative and significant effect on ROA. Conversely, the higher the proportion of debt to total assets, the higher the Profitability of companies (ROA) will experience a significant decline.

The regression coefficient of the DER variable showed -0.016 with a significance value of 0.247. Because this value exceeds the significance limit of 0.05, DER does not affect ROA. This indicates that changes in the debt-to-equity ratio do not have a noticeable impact on the Profitability of companies in this regression model.

Hypothesis Test

Partial Test (t-test)

Tabel 4.6 Uji t

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	128694967.447	16437442.204	7.829	.000
	DAR	-.145	.056	-2.581	.013
	DER	-.016	.014	-1.170	.247

From the t-tests listed in the table, Coefficients The t-calculated value of DAR was -2.581 with a significance level (Sig.) of 0.013. Because the significance value is below the significance level of 5% (α = 0.05), statistically it can be concluded that DAR has a significant effect on ROA. A negative regression coefficient indicates that the relationship

between DAR and ROA is negative, which means that an increase in the debt-to-assets ratio tends to lower the rate Profitability company.

The t-count value of the DER shows -1.170 and the significance value is 0.247. Because the value exceeds the significance limit of 0.05, DER statistically has no effect on ROA.

As a result, the results of the analysis partially proved that only the DAR variable had a significant effect on ROA, while the DER did not show a statistically significant influence on Profitability company.

Test F

Table 4.7 Test F

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.972E+16	2	2.986E+16	7.529	.001[b]
	Residual	2.023E+17	51	3.966E+15		
	Total	2.620E+17	53			

a. Dependent Variable: ROA

b. Predictors: (Constant), DER, DAR

From the simultaneous test of the F test on the ANOVA table obtained an F-calculated value of 7.529 and a significance level (Sig.) of 0.001. Since the significance value is below the significance level of 5% ($\alpha = 0.05$), it can be concluded that the variables are simultaneously *independent* in the regression model has a significant influence on the variables they *depend on*, i.e. ROA. These findings indicate a regression model that is appropriate to delineate the overall variation of ROA.

Variabel *independent* DAR and DER simultaneously show a significant influence on ROA. These results indicate that the regression model is built to have the feasibility of being used in explaining ROA variations based on the combination of these two variables. The findings of this F test reinforce that although not all variables *independent* provide a partially significant influence, but collectively both still make substantial contributions to the model, making them relevant in the analysis Profitability company.

Coefficient of Determination Test (R2)

Results-based *Model Summary*, accepted grades coefficient of determination (R Square) by 0,228 or 22,8%, which indicates the independent variable that is DAR and DER together able to explain variations in variables *depend on* ROA by 22.8%. While the rest, as many as 77,2% explained by other variables outside the model that were not included in this study.

Table 4.8 Determination Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.477[a]	.228	.198	62977524.99

a. Predictors: (Constant), DER, DAR

b. Dependent Variable: ROA

Source: SPSS 27

On the other hand, the value of Adjusted R Square by 0,198 proved that after being aligned with the number of variables in the model, the model's ability to explain the variation in ROA was 19.8%. This shows that although the model has a significant influence simultaneously (based on the F test), the predictive contribution of the DAR and DER variables to ROA is classified as low to medium, so it is necessary to consider other variables that may be more influential in explaining the variation Profitability company.

CONCLUSION

From the results of multiple linear regression analysis related to 18 health sector companies on the Indonesia Stock Exchange (IDX) from 2022–2024, conclusions can be drawn **DAR** negative and significant effects on ROA. This indicates that the higher the proportion of debt to assets owned by the company, the lower the profit rate produced. Meanwhile, **DER** has no effect on ROA. Thus, changes in the debt-to-equity structure do not directly impact the Profitability companies in the context of this Study. Simultaneously, the two variables *independent* (DAR and DER) have a significant effect on ROA, but their contribution to explaining the variation Profitability It is relatively limited, which is 22.8% of the total variation, while the rest is influenced by other variables outside the model.

Suggestion

1. **For the management of companies in the health sector**, it is advisable to be more careful in the use of debt, especially in increasing the debt-to-assets ratio. Optimal management of capital structure is necessary to maintain cost efficiency and increase the rate of return on assets.
2. **The next study** is expected to expand the scope of independent variables, such as company size, sales growth, or operational efficiency, to improve the model's visibility against variations in Profitability.
3. **For investors and financial analysts,** these findings can be an initial reference in assessing a company's financial risk, especially in assessing that reliance on debt financing can have an impact on financial performance.

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