The Impact of Debt Management on Profitability: A Study of Automotive Companies Listed on the Indonesia Stock Exchange

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Abstract

Debt is all financial obligations of the company to other parties that have not been fulfilled, both short-term debt and long-term debt. Debt can affect the company's ROE. Return on equity (ROE) shows the company's ability to generate profits from the equity used. This ratio is obtained from profit before tax divided by total equity. The purpose of this study is to determine and empirically prove the effect of debt on ROE in Automotive companies on the Indonesia Stock Exchange. In this study, an associative research approach is used, which is a study to determine the effect between independent variables and their dependent variables. The sample of this study was 12 automotive companies. To prove the hypothesis proposed in this study, a simple linear regression statistical tool was used with partial testing (t-test). Based on the results of the hypothesis test, it can be proven that debt has an effect on ROE. The R-square value of 0.129 proves that the contribution of the independent variable (debt) in explaining its effect on the dependent variable ROE (Return On Equity) is 12.9% while the rest (100 - 12.9 = 87.1%) is influenced by other factors such as capital structure, working capital, sales and so on.

***Keywords**:* Debt, Profitability, Automotive and Simple Regression Analysis.

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Introduction

Implementation of financial decisions must be carried out carefully and precisely, considering that every financial decision taken will affect other financial decisions and will have an impact on the achievement of the company's overall goals. Under certain conditions, companies can fulfill their funding needs by prioritizing internal sources of funds [1]. However, as the company grows, funding needs increase, which may require the use of external funding sources, such as debt. The use of debt must be carefully considered due to the inherent risks, particularly the cost of capital. Debt can be categorized into short-term and long-term liabilities, and both must be managed to avoid financial distress and to maintain financial sustainability [2].

Return on Equity (ROE) reflects a company's ability to generate profits from the shareholders' equity employed. This ratio is calculated by dividing profit before tax by total equity [3]. A higher ROE indicates better financial performance and can attract potential investors to commit their capital. One key factor influencing ROE is debt [4]. Debt is a highly sensitive financial instrument that can amplify ROE through financial leverage. Company owners often encourage the use of debt to a certain extent to improve the company's ROE [5]. However, this strategy carries risk, and thus, managerial behavior must be aligned with ownership interests. To ensure this alignment, ownership by managers and commissioners plays a critical role. When managers hold shares in the company, they are more likely to act prudently, especially in decisions related to debt usage. The risk of bankruptcy becomes a shared responsibility, not just borne by the main shareholders but also by the management. As a result, managerial ownership acts as a governance mechanism that encourages responsible financial decisions, including careful debt management [6]. Therefore, managerial ownership is an important factor to consider in efforts to increase ROE [7].

Increasing the use of debt can lead to a higher Return on Equity (ROE). This relationship occurs because debt can serve as financial leverage, allowing companies to generate higher returns on shareholders' equity—provided that the return on assets exceeds the cost of debt. This concept is supported by Sartono, who stated that "Return on equity or return on net worth measures the company's ability to obtain profits available to the company's shareholders. This ratio is also influenced by the size of the company's debt; if the proportion of debt is greater, then this ratio will also be greater [8]. In other words, a larger portion of debt in the capital structure, under the right conditions, can magnify the profits attributable to equity holders.

This is reinforced by the research findings of [9], who demonstrated that debt has a positive effect on Return on Equity (ROE). These findings support the theoretical view that increasing debt, under favorable conditions, can enhance a company's ROE due to the benefits of financial leverage. However, empirical observations in the automotive industry reveal inconsistencies with this theory. Some companies experience an increase in debt accompanied by a decline in ROE, while others see ROE improve despite a reduction in debt levels. This suggests that the relationship between debt and ROE is influenced by other internal and external factors, such as operational efficiency, cost of debt, and market conditions. The following section presents research data to illustrate this phenomenon and explore the underlying issues affecting the observed trends.

Based on the data presented, it can be observed that there is a problem related to the ineffective use of debt, as indicated by instances where an increase in debt is followed by a decline in Return on Equity (ROE). This suggests that the additional debt does not contribute to improved profitability, but rather leads to higher interest expenses, which reduce the company's net profit. As a result, the ROE achieved becomes suboptimal, failing to reflect the potential benefits of financial leverage [10]. This condition highlights the importance of efficient debt management to ensure that borrowed funds are utilized productively and generate returns that exceed the associated costs.

Literature Review

2.1 Profiability

Profitability is a financial measure that reflects a company's ability to generate profit in relation to its revenue, costs, or assets. In simple terms, it indicates how efficiently a company utilizes its resources to produce earnings [11]. High profitability suggests effective management and strong financial performance, while low profitability may point to operational inefficiencies or cost management issues. Profitability indicates whether a company is generating profit and how efficiently it utilizes its resources to achieve that profit**.** It reflects the overall financial health of the company and its ability to create value for shareholders [12].

Profitability measures a company's ability to generate profit and reflects how effectively it manages its costs and utilizes its resources**.** It serves as a key indicator of financial performance, operational efficiency, and long-term sustainability [13]. A profitable company not only generates revenue that exceeds its expenses but also utilizes its assets and capital efficiently to maximize returns**.** This efficiency is essential for sustaining growth and attracting investors [14]. Return on Equity (ROE) shows how much net profit a company generates in relation to the shareholders' equity**.** It reflects the company's efficiency in utilizing equity capital to produce earnings and is a key indicator of financial performance from the investors' perspective [15].

Return on Equity (ROE) is a financial ratio used to measure the profitability generated from the capital invested by shareholders. It is calculated by dividing net profit after tax by shareholders' equity. This ratio indicates how effectively a company uses equity funds to generate profits for its investors [16]. Return on Equity (ROE) is a key profitability ratio that measures a company's ability to generate profits using the capital invested by its shareholders**.** It reflects how effectively the company utilizes equity to produce earnings [17].

$$\text{Return on equity (ROE)} = \frac{\text{Earnings Before After Tax}}{\text{Equity}}$$

2.2 Debt Management

Debt refers to all of a company's financial obligations or liabilities owed to external parties that have not yet been settled**.** It includes both short-term and long-term borrowings that the company must repay [18]. Liabilities are funds provided by creditors and represent the company's obligations, reflecting creditors' claims on the company's assets. Debt is capital obtained through loans from various parties, which must be repaid in the future under agreed-upon terms and conditions [19]. Basically debt can be classified into short-term debt and long-term debt.

Liabilities are credit balances or amounts that must be transferred from the closing of the books to the following year's period based on records [20] that comply with accounting principles (credit balances are not the result of negative asset balances).

$$\text{Debt Management} = \frac{\text{Total Debt}}{\text{Assets}}$$

Two important characteristics are that the obligation must exist at that time and must be the result of a past transaction. The transaction may be a financial transaction or a non-financial event such as an accident that gives rise to an obligation to replace damage [21]. The influence of Debt Management on profitability can be described with the following conceptual framework:

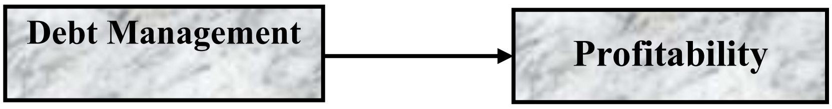

Figure 1. Conceptual Framework

A company can have several goals when it is established according to what is set by its founders. However, a company generally has the main goal of maximizing the welfare of its owners / shareholders. This is in line with the goal of the owners / shareholders to make investments, namely to obtain a high rate of return on investment so that they can prosper [22]. In making funding decisions for companies related to determining the capital structure, managers must be careful because this decision can affect the company's ROE itself which ultimately affects the achievement of the goal of maximizing shareholder welfare. This funding decision is related to the manager's policy in determining the right proportion between the amount of debt and the amount of capital [23]. One of the factors that affect the level of return on equity is the company's debt level. The higher the company's debt level, the higher the return ratio. This is due to the company's ability to provide large profits to shareholders. Because the reason for the funds available is quite large, namely funds from external loans, the company is able to provide high profits for shareholders [24]. Return on equity or return on net worth is influenced by the size of the company's debt. If the proportion of debt is greater, this ratio will also be greater [25].

Ha: Debt Management has a positive effect on the profitability of Automotive companies on the IDX.

Research Methodology

In this study, an associative research approach is used [26], which is a study to determine the influence or relationship between independent variables and their dependent variables. The independent variables in this study are debt management, while the dependent variable in this study is profitability which is measured using Return On Equity. The sampling technique for this study uses purposive sampling [27], which is the determination of samples based on certain criteria that aim to provide maximum information. Purposive sampling here uses judgment sampling, which is a sampling technique with several specific criteria. The research observations were 12 companies with a research period of 3 years, resulting in 36 research observations. The research data analysis technique uses simple regression equations.

$$\mathbf{Y = a + \beta X + e}$$

Explanation :

Y	= Profitability
X	= Debt management
β	= coefefecient
a	= constant
e	= error

To facilitate calculations, data processing is assisted by SPSS software version 27 by conducting a series of normality, t-test and determination tests

Results and Discussion

The description of the research variable data can be explained from the tabulation data of debt and Return On Equity of public automotive companies on the IDX for the period 2021 to 2024. The data analysis method used in this study is the statistical analysis method using a simple linear regression equation model. Data analysis begins by processing data using Microsoft Excel, then using SPSS software version 26 hypothesis testing is carried out.

Table 1. Descriptive Statistics of Company Sample Data

	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Debt	36	36716.00	92460000.00	8181259.14	21069256.18
ROE	36	.67	50.00	19.53	13.21
Valid N (listwise)	36				

Sources: Data analysis, 2025

Based on the table above, it can be explained that the average debt is 8181259.14 with a standard deviation of 21069256.18. The maximum value is 92460000 in the ASII company in 2022 and the minimum value is 36716 in the LPIN company in 2023. It can be concluded that the data is quite varied and spread between the minimum and maximum values. The average Return On Equity is 19.53 with a standard deviation of 13.21. The maximum value is 50.57 in the IMAS company in 2022 and the minimum value is 0.67 in the MASA company in 2024. It can be concluded that the data is quite homogeneous and spread between the minimum and maximum values. The number of samples is 36 obtained from 12 companies from the period 2022 - 2024.

After testing the data normality and data autocorrelation, then the next step is to test the simple linear regression. The following is a simple regression table.

Table 2. Simple Regression

		Unstandardized Coefficients		**Standardized Coefficients**
Model		**B**	**Std. Error**	**Beta**
1	(Constant)	17.689	2.241	
	Debt.LN	2.248	.000	.359

Sources: Data analysis, 2025

In the table above, the constant value (intercept) is -0.780 and the regression coefficient is 0.075 so that the regression equation is:

$$Y = 17.689 + 2.248X$$

From this equation, it can be seen that if the debt variable does not increase, the ROE (Return On Equity) achievement is 17.689. The beta coefficient value of debt is 2.248. The influence of debt on ROE (Return On Equity) has a positive effect where if the debt variable increases by 1, Return On Equity will increase by 2.248.

The proof of the research hypothesis uses a t-test where by conducting a t-test it can be known whether or not there is an influence of the independent variable on the dependent variable, the hypothesis is accepted or rejected with a significance limit of 0.05. To prove whether the hypothesis is accepted or rejected, it can be seen in the following table.

Table 3. T Test

Model		t	Sig.
1	(Constant)	7.895	.000
	Debt.LN	2.240	.032

Sources: Data analysis, 2025

In the table above, the t-count value of 2,240 is greater than the t-table of 1,671 with a significance of 0.032 (Sig. <0.05), so Ho is rejected and the hypothesis is accepted. This means that debt has an effect on ROE (Return On Equity). The R-square value of 0.129 proves that the contribution of the independent variable (debt) in explaining its influence on the dependent variable ROE (Return On Equity) is 12.9% while the remaining 87.1% is influenced by other factors not studied. From the regression equation it can be seen that if the debt variable does not increase then the achievement of ROE (Return On Equity) is 17,689. The beta coefficient value of debt of 2.248 indicates that the influence between debt and ROE (Return On Equity) has a positive effect where if the debt variable increases by 1 then Return On Equity will increase by 2.248.

The conclusion is that the results of this study are in line with Agency [28] which states that "return on equity or return on net worth measures the company's ability to earn profits available to the company's shareholders. This ratio is also influenced by the size of the company's debt, if the proportion of debt is greater, this ratio will also be greater". This theoretical view illustrates that companies with increasing debt will be able to increase ROE. The results of this study are strengthened by the findings of Nazia Safitri Kalia's research (2013) which was able to prove that debt has a positive effect on ROE. This shows that increasing debt will increase the company's ROE.

Every company must be able to manage its equity effectively so that the assets it owns can provide optimal results. The greater the return, the greater the increase in the company's stock price so that investors are more motivated to invest in stocks that have high ROE. Profit which is usually measured by (return on equity) is the net profit from the capital owned [29]. Therefore, company performance can be measured by ROE. The higher the level of profitability (return on equity), the higher the profit that investors will get so that investors feel interested in investing, causing stock prices to tend to increase. The implication of the results of this study is that companies as debt borrowers consider that Return On Equity (ROE) is an attraction for investors in investing, because the investment they invest will be more profitable when viewed from earnings per share or the fairness of the stock price assessed by the market. For this reason, companies try to increase ROE by increasing debt to increase the company's capital which is used as an investment that generates high profits [30,31,32].

Conclusion

The results of hypothesis testing, it can be proven that debt has an effect on ROE. So the hypothesis is accepted. Companies that have debt can meet their investment needs which can generate profits (profits) without having to wait for the use of capital from the sale of shares. Companies should use debt as effectively as possible to generate the expected profits. This is proven by the influence of debt on ROE. Based on the results of the relatively small determination coefficient, it is recommended that further researchers add other variables that can influence Return on Equity, such as the use of working capital, use of cash, sales and costs.

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