Vol.6, No.2, Juni 2024
Available online at: https://jurnal.kdi.or.id/index.php/ef

The Impact of TATO and DER on ROA in IDX 2019-2023 Property and Real Estate Companies

Hanifa Sri Nuryani[1) *]

[1)]*Sumbawa Uniiversity of Technology*
Jl. Raya Olat Maras, Batu Alang, Moyo Hulu, Sumbawa Besar
[1)]hanifah.sri.nuryani@uts.ac.id

Article History:

Upload June 6[nd] 2024;
Revision June 9[th] 2024;
Accepted June 9[th] 2024;
Available online June 10[th] 2024

Keywords:

DER
Property
Real Estate
ROA
TATO

Abstract

This study was carried out at publicly listed property and real estate companies on the Indonesia Stock Exchange. The objective of this study is to examine and evaluate the impact of total asset turnover and debt to equity ratio on return on assets in Property and Real Estate Companies that are listed on the IDX from 2019 to 2023. The research methodology utilized in this study adopts a causal approach, specifically employing a quantitative and descriptive research design. The study included a total of 78 companies, selected using purposive selection technique, resulting in a sample size of 54 companies. The study employed the multiple linear regression approach and conducted classical assumption checks for analysis. The findings of this study suggest that the Total Asset Turnover and Debt to Equity Ratio significantly impact the Return on Assets (ROA) in Property and Real Estate companies listed on the Indonesia Stock Exchange between 2019 and 2023. The TATO has a moderately favorable influence on the return on assets (ROA), whereas the debt-to-equity ratio (DER) has a substantial and adverse effect on ROA. These findings have significant consequences for individuals and organizations involved in the property and real estate industry, highlighting the crucial role of strategic asset management and financial structuring in influencing firm performance. This research makes a valuable contribution to scholarly discussions and provides practical insights for professionals seeking to improve financial performance in the ever-changing Indonesian real estate market.

I. Introduction

The Indonesia Stock Exchange serves as a pivotal center for investment and financial operations, playing a critical role in the economic development of the country. The Indonesia Stock Exchange offers a wide range of funding choices that can be advantageous for businesses in various industries. It serves as a crucial component of the capital market. Consequently, they can obtain finances in a highly efficient and effective manner. Companies can acquire money by engaging in the issuance and sale of shares, which enables them to enhance their company's capacity and fulfill their operational capital requirements, while simultaneously facilitating commercial expansion. Investors in the Indonesian Capital Market have the unique opportunity to participate in a wide range of shares, enabling them to choose the investment that most closely matches their risk profile and expected return. Financial records and their transparency are essential considerations in the investment decision-making process[1] Financial statement analysis allows investors to evaluate a company's operational effectiveness and financial results. This assessment evaluates the company's ability to generate profits and effectively control costs. In order for investors to evaluate the potential for growth and risks associated with their investments, it is essential that they have access to highly accurate and precise information.

[2] There is significance of transparently reporting financial information and accurately portraying the true condition of a publicly listed company. The objective of this is twofold: to guarantee adherence to regulations and to bolster investors' confidence in the company, empowering them to make educated strategic choices. Financial analysis is an extremely useful tool for evaluating the performance of a company, particularly when profitability ratios are utilized. It provides a perspective on how the company's resources are being utilized to generate revenues in a productive and efficient manner. [3] The Indonesia Stock Exchange serves a broader purpose beyond being a simple stock trading platform. This claim is made because of the exchange's ability to perform multiple functions. Moreover, it functions as a means of promoting trust, openness, and effectiveness. As a result, companies now have a deeper comprehension of the significance of ethical leadership, which in turn not only fosters economic expansion but also advances social progress. Therefore, the Indonesia Stock Exchange has a significant impact not only on

[*] Corresponding author

ISSN 2656-095X (online) 2656-0941 (print)
doi: 10.32877/ef.v6i2

promoting economic growth but also on developing a corporate environment that is both transparent and long-lasting.

Profitability ratios are the primary metric used to assess a company's ability to make profits in a productive and efficient manner. [4], [5] This ratio serves as an indicator of the company's operational effectiveness and as a standard for stakeholders, including investors, to evaluate the organization's ability to establish long-lasting collaborative relationships. The Return on Assets (ROA) formula measures a company's effectiveness in using its assets by dividing the net profit after taxes by the total assets, which includes all resources under the company's control. A high return on assets (ROA) percentage reflects the company's exceptional operational efficiency in effectively converting investments in assets into net profit [6]. This suggests that the company exhibits outstanding expertise not only in recognizing profitable assets, but also in efficiently managing them to achieve the most advantageous outcomes. On the other hand, a poor return on assets (ROA) suggests that the company has not effectively utilized its assets. This might be attributed to inadequate asset management or investment in unprofitable assets. A declining Return on Assets (ROA) can indicate to management the necessity of closely examining and enhancing specific facets of the business operations. [7] Investors consistently seek indicators of possible value appreciation in their investments and strive to achieve a profitable return on their investment. An increased profitability ratio is a desirable characteristic for investors, since it indicates that the company is more competitive and is expected to generate higher profits in the future.

[8] There are multiple factors have the potential to impact the profitability of a company. One important issue to consider is the efficacy of asset management, which may be assessed by the total asset turnover. Several factors can influence the profitability of a company. Total asset turnover is a metric employed to determine the amount of income generated per unit of assets. This is achieved through the process of computing the total asset turnover. [9] The debt to equity ratio, which represents the proportion of a company's capital, can potentially impact its profitability. The rationale behind this is because the ratio functions as a measure for assessing the proportionate level of debt in relation to equity. The ratio measures the proportion of debt in relation to equity, so elucidating the situation. This is because the firm is required to take on the costs related to its debt, and it is expected that the company would have to pay for these charges. When evaluating a company's financial performance, it is crucial to take into account profitability metrics, such as return on assets (ROA), as they offer a comprehensive viewpoint and serve as a fundamental framework. In conclusion, it is imperative that this assessment is carried out. The correlation between return on assets (ROA), total asset turnover, and debt to equity ratio offers a thorough comprehension of how a company's approach to asset and debt management might impact its profitability and appeal to investors and stakeholders.

The Total Asset Turnover (TATO) ratio is used to assess how effectively a company utilizes its total assets to produce sales. The TATO ratio is the generally used term for referring to this ratio. [10], [11] Calculating this ratio requires dividing the net sales by the total assets. This is mentioned in the findings of both parties. The ratio is determined using this method, which is the one employed. A higher ratio indicates improved efficiency of the company, resulting in the ability to generate more revenue per unit of asset value. An elevation in the ratio is observed when the ratio is greater. A higher ratio indicates that the company is operating with greater efficiency compared to the prior period. The importance of this value is in its ability to showcase the company's proficiency in efficiently handling its assets to attain the utmost level of income. This is because it indicates the extent to which the business can effectively manage its assets. [12], When a corporation is able to effectively increase the turnover of its total assets, it suggests that the company has successfully improved the productivity of its assets, resulting in the growth of asset turnover. This is evidenced by the fact that the turnover of the assets has grown. This has occurred due to the higher rate of turnover of the assets. There are two methods to achieve this: either by boosting sales through the utilization of existing assets, or by reducing unproductive assets. Both of these strategies are feasible choices. Additionally, the ratio can be enhanced by the implementation of a well-executed business strategy or an increase in market demand, both of which enable the company to optimize its capacity utilization [13]. Both of these elements have the capacity to enhance the overall ratio. Moreover, it is plausible that this ratio may further enhance due to the synergistic impact of these two factors.

The leverage ratio, also referred to as the debt to equity ratio, quantitatively expresses the proportion of a company's assets supported by debt relative to the capital contributed by the company. This ratio is commonly known as the debt to equity ratio. [14] The ratio in question provides a comprehensive assessment of the organization's capital structure and the level of financial risk it assumes. This assessment is determined by the ratio. A larger ratio indicates that the organization relies more heavily on debt to maintain its operations, in comparison to a smaller ratio. The possibility of this leading to higher profits for shareholders depends on the effective management of the debt. However, there are inherent dangers associated with the excessive utilization of loans, especially when these loans are employed within the framework of volatile economic market conditions. In times of market downturn, businesses with substantial debt may encounter challenges in meeting their financial obligations. This is due to the potentiality that they may not be able to fulfill their responsibilities. As a consequence, it is likely that their capacity to generate money will be impeded [15]. The return on assets, also referred to as ROA, can be directly affected by the above factors. Consequently, this would lead to a decline in profitability. For example, a reduction in sales or a rise in expenses could result in a fall in the effective utilization of resources, ultimately leading to a decline in profitability. Efficiently managing the debt to equity ratio and total asset turnover is crucial for a firm to effectively handle its strategic management. [2], [16] These measurements not only indicate the company's effectiveness in managing leverage-related risks, but also demonstrate its proficiency in utilizing its assets. In the realm of efficient corporate management, it is necessary to tackle these challenges by implementing a plan that is flexible and responsive to the prevailing market conditions. It is crucial to attain maximum profitability and guarantee the long-term sustainability of the organization.

This study focuses on property and real estate industries, which are crucial to the Indonesian economy but are also very vulnerable to market fluctuations and government regulations. As a result, this research is unique and unparalleled. This analysis encompasses data from 2019 to 2023, a crucial time period marked by notable economic and legal disruptions, including the impact of the COVID-19 outbreak on the property and real estate industry. Furthermore, this analysis encompasses data spanning from 2019 to 2023. The research utilizes data that accurately portrays the current situations and challenges faced by organizations in the industry, resulting in added value. The aim of this study is to assess the influence of two significant financial indicators, Total Asset Turnover (TATO) and Debt to Equity Ratio (DER), on Return on Assets (ROA). More precisely, the study will concentrate on examining the correlation between these two measurements and return on assets (ROA). Consequently, it is now possible to conduct a thorough analysis into how the efficient utilization of resources and the capital structure impact a company's profitability. In the context of property and real estate firms in Indonesia, this precise mix of features has been given little attention in recent years. This study aims to assess the impact of Total Asset Turnover (TATO) and Debt to Equity Ratio (DER) on Return on Assets (ROA) in the property and real estate companies listed on the Indonesia Stock Exchange (IDX) from 2019 to 2023. More precisely, the time frame being examined will be from 2019 to 2023. The subsequent text provides a concise and precise overview of the research framework, which is founded on the historical background of the research and the objectives of the study, with the intention of enhancing comprehension:

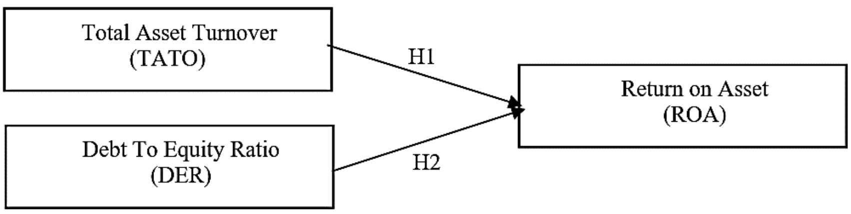

Figure 1. Theoretical Framework

An evaluation is carried out in order to determine the degree to which the company is making effective use of its resources in order to generate sales, as demonstrated by the framework of thought that was presented previously in this discussion. The presence of a high TATO indicates that the management of assets is efficient and has the potential to boost the organization's profitability. This is because the TATO is relatively high. TATO is an acronym that stands for total assets under management, which is the reason behind this. The fact that the ATO is quite high makes it abundantly clear that this is the circumstance that exists. Before going on to the next phase in the process of analyzing the level of financial risk that the company is expected to face, it is necessary to conduct an analysis of the ratio of debt to equity. This is the next step in the process. The debt-to-equity ratio (DER) of a firm is a significant indicator that the company is unduly dependent on debt. This is because a high DER indicates that the company has a high level of debt. It is possible that the firm will wind up incurring more financial commitments in the form of interest payments as a result of this, which will make the company more prone to experiencing financial instability. In order to evaluate whether or not the corporation is able to generate money from all of its assets, it is important to make this determination. Taking this next step is the next thing that needs to be done. The fact that the company has been able to achieve a high return on assets (ROA) is proof of the overall profitability and efficiency of the business. The company that the corporation belongs to is where you might find this evidence. During the course of this inquiry, it is feasible to formulate the hypotheses that are given below, taking into consideration the theoretical framework that was discussed earlier:

H1: TATO has a positive and significant impact on ROA in property and real estate companies listed on the Indonesia Stock Exchange from 2019 to 2023.

H2: DER has a negative and significant impact on ROA in property and real estate companies listed on the Indonesia Stock Exchange from 2019 to 2023.

II. METHODS

In order to investigate the ways in which a number of different factors influence one another, this study employs a causality technique. [17] Causality research is a sort of study that aims to determine the cause-and-effect linkages between independent variables (as causes) and dependent variables (as effects). This definition is presented in a simple and concise manner. The methodology of study that is utilized is known as quantitative research. [18], Quantitative research results in conclusions that are produced by the utilization of statistical techniques or other measurement procedures. For the purposes of this study, the population comprises of all of the property and real estate businesses that are publicly traded on the Indonesia Stock Exchange between the years 2019 and 2023. There are a total of 78 various businesses that make up the population. The sampling method that is being utilized is known as purposive sampling, and the following criteria are being utilized in order to pick the sample Numerous sub-sections are typically included in the approach section, including the following:

Table 1. Sample Criteria

No	Description	Quantity
1.	Real estate companies that are listed on the IDX.	78
2.	Property and real estate companies who are unable to submit financial reports to the Indonesia Stock Exchange in a consecutive schedule from 2019 to 2023.	(18)
3.	Real estate and property enterprises that had recurrent financial losses from 2019 to 2023.	(6)
Number of research samples		**54**

Source: data processed, 2024

At the end of the research project, a total of 270 samples were utilized. The samples were obtained by multiplying the total sample size of 54 organizations by the number of study periods that were taken into consideration while calculating the samples. [18], Secondary data consist of primary data that has been submitted to further processing in order to enhance the informative value that it provides for other users. Primary and secondary sources of information are utilized in this investigation in the form of tables, graphs, diagrams, and photographs. Accessing the website www.idx.co.id, which also served as the source of secondary data, allowed for the acquisition of the financial records of the businesses that were utilized as study samples. Secondary data was also gathered from this website. Within the scope of this study, the Return on Asset is the primary variable of interest that is investigated. The effectiveness of a company can be evaluated using a metric known as return on assets. [19] It is determined by dividing the net profit of the company by the total assets of the company. This is how it is computed. [20] A number of methods that can be utilized in order to compute the Debt to Equity Ratio (DER), Total Asset Turnover (TATO), and Return on Asset (ROA). Once thorough consideration has been given to the matter, these formulas will be further developed in the following manner.

a) $ROA = \frac{\text{Net Income}}{\text{Total Asset}}$

b) $TATO = \frac{\text{Sales}}{\text{Aktiva}}$

c) $DER = \frac{\text{Total debt}}{\text{Equity}}$

Multiple linear regressions are utilized in the analysis of the data in this study. Multiple linear regression is a statistical method that takes into account a large number of independent variables or predictor variables [17]. Within the framework of multiple linear regression analysis, many independent variables are utilized.

III. Results

Descriptive Statistics

There were a total of 270 pieces of research data that were collected, and the samples for this study consisted of 54 property and real estate companies that were able to fulfil the requirements for the study. The scope of a study that was carried out encompassed the years 2019 through 2023 as its time period of investigation. Please take a look at the following descriptive statistics, which have been provided for your review in order to provide you the opportunity to evaluate the outcomes of the processing of the sample data:

Table 2. Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation
TATO	270	.018	.641	.25971	.297721
DER	270	.081	3.826	.87510	.781520
ROA	270	.010	.312	.28176	.356214
Valid N (listwise)	270				

Source: data processed, 2024

The Total Asset Turnover (TATO) variable was collected from a total of 270 samples in this study. The lowest TATO value of 0.018 was recorded by PT Metropolita Land Tbk in 2019. Conversely, PT PP Properti Tbk obtained the highest TATO value of 0.641 in 2020. The property and real estate industry's average Total Asset Turnover value from 2019 to 2023 is 0.05971. The Debt to Equity Ratio (DER) variable also had a sample size of 270. PT Bima Sakti Pertiwi Tbk achieved the lowest Debt-to-Equity Ratio of 0.081 in 2020. Conversely, in 2022, PT Greenwood Sejahtera Tbk reported the greatest Debt-to-Equity Ratio at 3.826. The property and real estate industry's average

Debt-to-Equity Ratio from 2019 to 2023 is 0.87510. The number of samples for the Return on Asset (ROA) variable is 270. In 2019, PT Aksara Global Development Tbk achieved the lowest Return on Assets figure of 0.010. In 2021, PT Ciputra Development Tbk attained a Return on Assets value of 0.312, which was a substantial accomplishment. From 2019 to 2023, the property and real estate industry has an average Return on Assets value of 0.08176.

Validity and Reliability Test

Validity and reliability tests are two important components in research to evaluate the quality of the measuring instrument used and the reliability test refers to the consistency of the measurement results if the measurement is repeated under the same conditions. [21]

1. Validity Test
   The Validity test uses Pearson correlation analysis to test construct variables. All items must show a significant correlation with a p-value <0.05 [22].

Table 3. Validity Test

	TATO	DER	ROA
TATO	1	.512	.628
DER	.512	1	.573
ROA	.628	.573	1

Source: data processed, 2024

According to the information presented in table 3, there is a substantial correlation ($p < 0.01$) between the independent variables (X1 and X2) and the dependent variable (Y). This suggests that each item is reliable for assessing the targeted construct.

2. Reliability Test
   The reliability test uses Cronbach's Alpha to test the reliability of a variable in the model, the Cronbach Alpha value above 0.7 indicates good reliability. [21]

Table 4. Reliability Test

Variable	Cronbach's Alpa
TATO	0,719
DER	0,816
ROA	0,759

Source: data processed, 2024

Based on table 4 above, the Cronbach Alpha value of 0.845 indicates that the questionnaire or measurement instrument has high reliability.

Classical Assumption Test Results

This study satisfied the requirements of the classical assumption test, which stipulates that the data must have a normal distribution, no multicollinearity, no autocorrelation, and no heteroscedasticity. The findings of the standard assumption test for heteroscedasticity, autocorrelation, multicollinearity, and normality are presented below.

1. Normality Test
   The purpose of the normality test is to determine whether or not the variables that are confounding or residual in the regression model have a normal distribution. (Examining the Histogram, PP Plots, and Kolmogorov-Smirnov graphs are the tests that are carried out in this investigation in order to determine whether or not the data is normal. In situations when the normality test is not satisfied, the statistical test is rendered invalid when it is applied to a sample size that is relatively small.

Table 5. One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		270
Normal Parameters[a,b]	Mean	0E-7
	Std. Deviation	.04029338
Most Extreme Differences	Absolute	.087
	Positive	.087
	Negative	-.051
Kolmogorov-Smirnov Z		.873
Asymp. Sig. (2-tailed)		.431

Source: data processed, 2024

According to Table 5, the findings of the Kolmogorov-Smirnov normality test reveal a value of 0.431 that is statistically significant. This value is higher than the threshold of 0.05, which indicates that the test was successful. The Kolmogorov-Smirnov normality test revealed that the research data followed a normal distribution. This was proved by the results of the test.

2. Multicollinearity Test

The multicollinearity test, which involves examining the VIF (Variance Inflation Factor) and Tolerance values, can be used to determine whether or not there is a correlation between independent variables in a regression model. This can be done by utilising the multicollinearity test.

Table 6. Multicollinearity Test Result

Coefficients[a]

Model		Collinearity Statistics	
		Tolerance	VIF
1	TATO	.727	1.782
	DER	.651	1.891

a. Dependent Variable: ROA

Source: data processed, 2024

According to the information presented in table 6, it is possible to draw the conclusion that there is no substantial connection between the two independent variables, which are Total Asset Turnover and Debt to Equity Ratio. In light of the fact that every single independent variable possesses a tolerance value that is more than 0.1 and a VIF value that is lower than 10, this conclusion can be supported.

3. Heteroscedasticity Test

The heteroscedasticity test is something that is done out in order to determine whether or not there is a difference in the variance of residuals between the various observations that are included in a regression model. This test is carried out in order to determine whether or not there is a difference. The scatterplot graph provides a visual representation of the heteroscedasticity test that might be considered.

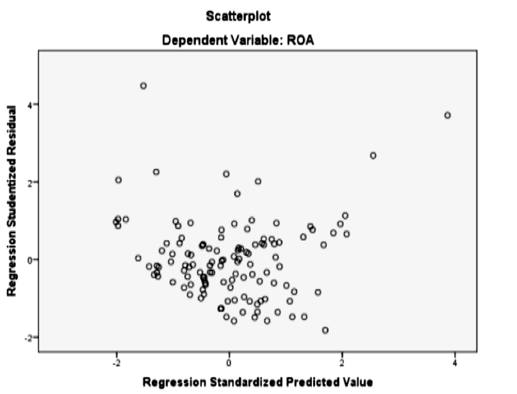

Figure 2. Heteroscedasticity Test Result

On the Y axis, the scatterplot graph demonstrates that the dots are not grouped together in a single location but rather are dispersed in a random manner above and below the number zero (0). It is true that the points are not gathered in a single location; this is the situation. On the basis of the scatterplot graph, it is possible to arrive at the conclusion that the regression model does not display heteroscedasticity. This conclusion is feasible. Given this information, it is possible to reach the conclusion.

4. Autocorrelation Test

Within the context of the linear regression model, the purpose of this test is to ascertain whether or not there is a connection between the confounding errors that occurred in period t and the confounding errors that occurred in the period that came before it (t-1). Detecting autocorrelation in the research model was accomplished through the application of the Durbin-Watson test. The table that follows contains the findings of the autocorrelation test, which are as follows:

Table 7. Autocorrelation Test Result

Model Summary[b]

Model	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.672	.573	.05293	2.271

a. Predictors: (Constant), TATO, DER

b. Dependent Variable: ROA

Source: data processed, 2024

A value of 2,271 is assigned to the Durbin-Watson statistic, which is derived from the data presented in Table 7. In light of the fact that the Durbin-Watson test statistic is found to be within the range of -2 to +2, which implies that there is no autocorrelation, the result of the autocorrelation test substantiates the assertion that there is no autocorrelation.

Multiple Regression Analysis

Multiple linear regression analysis is utilized to investigate the association between a single dependent variable, also known as a response variable, and two or more independent variables, also known as predictor variables, that have a linear relationship with the dependent variable. This research endeavors to develop a model that accurately depicts the relationship that exists between the variables that are independent and those that are dependent. This makes it simple to comprehend the manner in which each independent variable influences the particular variable that is being studied.

Table 8. Multiple Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.151	.017		1.722	.092
	TATO	.462	.069	.611	8.512	.000
	DER	-.087	.021	-.372	-5.910	.000

a. Dependent Variable: ROA

The approach that was utilized in this investigation for the aim of analyzing hypotheses was the utilization of multiple linear regression analysis which was the method that was utilized. Multiple linear regression models make it possible to investigate the connection between a single dependent variable, also known as the response variable, and two or more independent variables, also known as predictor variables, that exhibit a linear relationship with the dependent variable. This is made possible through the utilization of multiple linear regression models. In order to ascertain the nature of the link that exists between the variables, this inquiry is being carried out. The subsequent model that was utilized in this particular investigation was the multiple linear regression model, which can be summarized as having the following characteristics:

$$ROA = 0{,}151 + 0{,}462TATO - 0{,}087DER$$

This is what the equation for multiple linear regression that was presented earlier means:

1. The Return on Assets (ROA) value is indicated by the fixed value of 0.151 units when all of the independent variables, including Total Asset Turnover (TATO), Debt-to-Equity Ratio (DER), and Current Ratio, are maintained constant. Under the assumption that TATO, DER, and Current Ratio do not change, the value of ROA will continue to be 0.151 units no matter what happens.
2. 2. Since the regression coefficient for Total Asset Turnover (TATO) is 0.462 units, this indicates that an increase of one unit in TATO corresponds to an increase of 0.462 units in Return on Assets (ROA). According to these findings, increasing the efficiency with which the company makes use of its total assets would lead to an increase in the return on assets (ROA) that the organisation generates.
3. The ratio of debt to equity has a regression coefficient of -0.087 units, which indicates inactivity. It can be deduced from this that there is a commensurate decrease in ROA of 0.087 units for every one unit increase in DER. An increasing debt to equity ratio may result in a deterioration in the company's profitability, as seen by a decreased return on assets (ROA). This is indicated by the fact that there are indications that point to the probability of this happening.

Determination Coefficient Test

The results of the Determination Coefficient Test are shown in Table 9, which reveals that the value of the R Square after correction is 0.573. According to the findings of this investigation, the variance in Return on Assets may be attributed to 57.3% of the total variation in Total Asset Turnover and Debt to Equity Ratio. This conclusion is based on the findings that were discussed previously in the presentation. There are variables connected to our investigation that have not yet been studied, and these variables have an influence on the remaining 42.7%.

Table 9. Determination Coefficient Test

Model Summary

Model	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.672	.573	.05293	2.271

a. Predictors (Constant), TATO, DER
b. Dependent Variable: ROA
Source: data processed, 2024

Table 9 displays the findings of the Determination Coefficient Test, which demonstrates that the value of the R Square after correction is 0.573. This information is presented inside the table. The outcomes of this inquiry indicate that the variation in Return on Assets can be ascribed to 57.3% of the total variation in Total Asset Turnover and Debt to Equity Ratio. This is the conclusion that can be drawn from the findings. The findings that were presented earlier in the presentation served as the foundation for this conclusion for the presentation. Furthermore, there are variables that are associated with our investigation that have not yet been investigated, and these variables have an impact on the remaining 42.7% of the overall data.

Simultaneous Hypothesis Testing

A statistical procedure known as the F test is utilized in regression analysis for the goal of establishing the overall statistical significance of the regression model. This is accomplished through the utilization of the F test. For the purpose of determining whether or not a regression model has at least one independent variable that has a considerable influence on the connection between the two variables, the F test is utilized. This test is utilized in order to discover whether or not the F test is utilized.

Table 10. F-test results (Simultaneous)

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.171	3	.012	8.761	.000[b]
	Residual	.223	266	.038		
	Total	.343	269			

a. Dependent Variable: ROA
b. Predictors: (Constant), TATO, DER

Source: data processed, 2024

With the significance level for the F test set at 0.000, the results of the F test suggest that the F count is higher than the F table value of 2.68. This is the case since the significance level for the F test is set like this. The fact that the F count is greater than the F table and the significance threshold is less than 0.05 leads us to the conclusion that the alternative hypothesis (Ha) is the one that should be accepted. Both the Total Asset Turnover and the Debt to Equity Ratio will have a substantial impact on the Return on Assets of property and real estate companies that are listed on the Indonesia Stock Exchange between the years 2019 and 2023. This is because both of these ratios are directly related to the return on assets.

Partial Hypothesis Testing

The t-test is a statistical method that is applied in regression analysis with the purpose of determining whether or not each regression coefficient is statistically significant on its own. This is accomplished through the utilization of multiple regressions. Through the application of the statistical method, this objective is successfully attained. The primary objective of the t test is to ascertain whether or not the regression coefficient that corresponds to each independent variable in the regression model has a substantial influence on the variable that is being examined. This is the core goal of the t test. The primary purpose of the t test is to accomplish this.

Table 11. T-test results (Partial)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.151	.017		1.722	.092
	TATO	.462	.069	.611	8.512	.000
	DER	-.087	.021	-.372	-5.910	.000

Source: data processed, 2024

The explanation can be summarized as follows, in accordance with the findings of the investigation that are shown in table 11 above:

1. The findings of the t-test indicate that the estimated t value for Total Asset Turnover (TATO) is 8.512, which is higher than the t table value of 1.979. Furthermore, the significance level for this difference is 0.000, which is lower than the threshold of acceptance of 0.05. Because of this, the alternative hypothesis, often known as Ha, is deemed to be correct. Between the years 2019 and 2023, the Return on Assets (ROA) of property and real estate businesses that are listed on the Indonesia Stock Exchange is influenced in a way that is both positive and significant by the Total Asset Turnover. This demonstrates that increasing the effectiveness with which the company utilizes its total assets will result in a raise in the return on assets (ROA) that is proportional to the increase in efficiency. When the TATO ratio is high, it indicates that the company is able to earn a greater amount of money for each unit of its assets. Increasing the number of properties that are sold or improving the usage of assets in order to generate rental income are two examples of this within the property and real estate industry. When it comes to the real estate industry, the purpose of generating cash from held assets involves more than simply selling buildings at prices that are advantageous. Additionally, it entails managing the rental property portfolio in an effective manner by lowering the number of vacant units and raising the rental rates significantly. In an instant, this results in an increase in the Return on Assets (ROA) [1], [7]. These

investigations have demonstrated that Total Asset Turnover (TATO) has a significant and positive impact on Return on Assets (ROA) in the property and real estate industry on the Indonesia Stock Exchange. This demonstrates that increasing the company's ability to utilize its assets in an effective manner, as evidenced by an increase in Total Asset Turnover (TATO), directly leads to increased profitability, as demonstrated by a higher Return on Assets (ROA). As a result, this demonstrates that property and real estate businesses who are able to maximize the effective utilization of their assets have the capacity to generate higher earnings from their owned assets, thereby producing additional value for their shareholders.

2. The t-value that was determined for the Debt to Equity Ratio (DER) is -5.910, which is lower than the t-table value of -1.979. Additionally, the significance level was 0.000, which indicates that there is a high level of statistical significance ($p<0.05$). Taking into consideration this circumstance, the alternative hypothesis (Ha) is likewise validated. The Return on Assets (ROA) of property and real estate enterprises that are listed on the Indonesia Stock Exchange is significantly impacted in a negative manner by the Debt to Equity Ratio during the period of time spanning from 2019 to 2023. There is a correlation between an increase in the debt to equity ratio and a fall in the return on assets (ROA), which indicates that the company's profitability may diminish as a result of the increase. The payment of interest is a requirement of debt, which can result in a reduction in the amount of income that is available to shareholders. When interest rates are high, the expenses of borrowing money can be lower, which can have a negative impact on a company's profitability. A high debt-to-equity ratio (DER), which indicates a larger dependency on loans, might therefore result in a reduction in return on assets (ROA). This is due to the fact that an increase in interest expenditures results in a fall in the profit gained from each individual asset. Generally speaking, investors and lenders consider businesses that have high debt-to-equity ratios (DERs) to be more risky than corporations that have lower DERs. As a result of increased duties to make interest payments in situations where revenue may be unexpected, such as during an economic downturn or a sluggish real estate market, this risk is a consequence of the fact that these obligations are increased. This increased risk may have an effect on a firm's ability to acquire new capital on favorable terms, which could have consequence for the company. It is clear from the findings of this study that the Debt-to-Equity Ratio (DER) has a negative and statistically significant impact on Return on Assets (ROA) [6]. A high Debt to Equity Ratio (DER) shows that the firm relies substantially on borrowed funds rather than capital from shareholders in order to finance its assets and activities. This is because the company is very dependent on borrowing money. Return on Assets (ROA) is a metric that is used to assess how effectively a firm is able to generate profits from its whole asset portfolio. The interest rate on a loan is a fixed fee that must be paid whenever the loan is taken out, regardless of how well the business does. When the debt-to-equity ratio (DER) is high, it indicates that interest expenditures are also increasing at the same time. Because of this, the net profit of the company decreases, which in turn leads to a decrease in the return on assets (ROA). The return on assets (ROA) is determined by deducting the net profit from the total assets.

IV. Conclusions

From the conducted analysis and debate, the following conclusions may be inferred: The test results indicate that Total Asset Turnover (TATO) has a statistically significant positive impact on Return on Assets (ROA) in property and real estate enterprises from 2019 to 2023. Companies with a higher Total Asset Turnover generally exhibit superior Return on Assets. This suggests that the company is highly skilled at efficiently leveraging its resources to generate revenue, hence boosting its profitability. Furthermore, the test results additionally validate that the Debt to Equity ratio (DER) exerts a substantial adverse impact on Return on Assets in property and real estate enterprises throughout the identical time frame. Companies that possess a higher Debt to Equity Ratio typically exhibit a lower Return on Assets due to their financial structure being comprised of a greater amount of debt. The profitability of a corporation is inversely correlated with its capital. This demonstrates the impact of financial structure on the financial performance of enterprises operating in the property and real estate sector.

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