



Effect of Debt to Asset Ratio, Total Asset Turnover, Receivable Turnover, and Sales Growth, on Return on Assets in Property, Real Estate & Construction Companies Listed on the Indonesia Stock Exchange for the 2015-2018 Period

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ABSTRACT

This study aims to understand the impact of DAR, TATO, Receivable Turnover, and Sales Growth on ROA in Property, Real Estate & Construction Companies listed on the IDX 2015-2018. This study uses a sample of 43 Property, Real Estate & Construction companies listed on the IDX in 2015-2018. This research is a quantitative research. The data used are secondary data obtained through the site www.idx.co.id. The method used is purposive sampling. The method of data investigation used is multiple linear regression method. The results show that according to partial DAR has a negative and significant impact on ROA, TATO, and Receivable Turnover have a positive and significant impact on ROA, and Sales Growth has not significant effect on ROA in Property, Real Estate & Construction companies listed on the IDX in the 2015-2018. Simultaneously, DAR, TATO, Receivable Turnover and Sales Growth have a significant impact on ROA in Property, Real Estate & Construction companies listed on the IDX for the period 2015-2018.

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1. Introduction

Most of the Indonesian state companies are engaged in property, building construction and real estate. These various fields of the company play an important role in the economic and development sectors. And it is also a field that is of great interest to workers and this sector is also capable of absorbing other sectors of the economy. So that the company sector has a huge impact in increasing the economic sector.

The company gets a very large profit for its business activities. To obtain a very large profit, the company must use the profitability ratio for a certain period. The Return On Asset (ROA) ratio is a type of profitability ratio used by a company to calculate the company's potential. This ratio is used by a company to measure the amount of net profit obtained from each fund that enters the total assets. If the ROA ratio is higher, the net profit will be higher. Meanwhile, if the lower the ROA ratio, the lower the net profit earned in total assets.

Table 1
Research Phenomena

No.	Issuer Code	Year	DAR	Total Asset Turnover	Receivable Turnover	Sales Growth	ROA
1	ASRI (PT Alam Sutera Reality Tbk)	2015	0.647	0.149	22,292	(0.233)	0.037
		2016	0.644	0.135	18,235	(0.024)	0.025
		2017	0.586	0.189	20,174	0.442	0.067
		2018	0.543	0.190	18,845	0.015	0.046
2	GWSA (PT Greenwood Sejahtera Tbk)	2015	0.079	0.012	4,218	(0.524)	0.116
		2016	0.069	0.020	5,870	0.689	0.030
		2017	0.073	0.012	4,503	(0.399)	0.026
		2018	0.080	0.018	11,233	0.582	0.028
3	PTPP (PT Housing Development Tbk)	2015	0.731	0.742	5,439	0.144	0.044
		2016	0.655	0.527	4,374	0.158	0.037
		2017	0.659	0.515	3,949	0.306	0.041
		2018	0.690	0.478	3,030	0.168	0.037

Source: www.idx.co.id



According to the data above, in 2015 amounting to 0.079, a decrease in 2016 of 0.069 occurred in the Debt to Asset Ratio of PT Greenwood Sejahtera Tbk (GWSA). Meanwhile, the Return on Assets in 2015 amounted to 0.816, experiencing a drastic decline in 2016 by 0.030. If the Debt to Asset Ratio decreases, it can increase the total Return On Asset, but what happens is the opposite, the Debt to Asset Ratio decreases and the Return On Asset also decreases.

PT Alam Sutera Realty Tbk (ASRI) in the 2017 period of 0.189 experienced an increase in 2018 of 0.190 which occurred in Total Asset Turnover. Meanwhile, the Return on Assets in the 2017 period was 0.067, experiencing a decline in 2018 by 0.046. If the Total Asset Turnover increases, it can increase the Return On Assets but the opposite happens, the Total Asset Turnover increases and decreases the Return On Assets.

PT Greenwood Sejahtera Tbk (GWSA) in 2015 amounted to 4,218, an increase in 2016 of 5,870 which occurred in Receivable Turnover. Meanwhile, Return On Assets in 2015 amounted to 0.816, facing a shrinkage in 2016 of 0.30. If Receivable Turnover increases, it can increase Return On Assets, but what happens is the opposite, Receivable Turnover increases and decreases Return On Assets.

PT Pembangunan Perumahan Tbk (PTPP) in 2015 amounted to 0.144, experiencing an increase in 2016 of 0.158. while the Return on Assets in 2015 was 0.044, facing a shrinkage in 2016 of 0.037. if sales growth increases, it can increase Return On Assets, but what happens is the opposite, Sales Growth increases and decreases Return On Assets.

2. Theoretical basis

2.1 Theory of Debt to Asset Ratio

Based on the opinion of Kasmir (2012: 157), DAR is measuring the ratio using the debt ratio between total assets and total debt. Which means, debt to finance the amount of company assets or the amount of company debt has an impact on asset management.

Based on the opinion of Hery (2016: 166), the debt to asset ratio is to calculate the consideration between total assets and total debt using a ratio. Which means, the amount of company assets that are financed by debt using a ratio or the amount of company debt has an impact on asset financing.

Based on the opinion of Sutrisno (2013: 224) debt to asset ratio is the amount of debt that is calculated as a percentage of the funds using a ratio. In other words, debt is defined as all debt originating from the company (banking), both long and short term. The lower the ratio, as a result, the level of security of funds is also good, the more sought by a creditor.

Based on the opinion of Hery (2016: 166), the formula for measuring the debt to asset ratio includes:

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

2.2 Theory of Total Asset Turnover

Based on the opinion of Murhadi (2015: 60), total asset turnover is the effectiveness of a company related to useful assets for income, which is indicated by a ratio.

Based on the opinion of Sitanggang (2014: 27), Total Asset Turnover is that all assets in the company are managed to encourage company sales which is measured using a ratio, a high ratio means that the higher the productivity in the use of all company assets.

Based on the opinion of Kasmir (2012: 185), total asset turnover is the turnover of all activities and the amount of sales earned in assets is measured using a ratio.

Based on the opinion of Kasmir (2012: 185) the formula for calculating the ratio of total asset turnover is:

$$\text{Total Asset Turnover Ratio} = \frac{\text{Net sales}}{\text{Total assets}}$$

2.3 Receivable Turnover Theory

Based on Kasmir (2012: 176), the accounts receivable turnover ratio is how long it takes to collect accounts receivable per one period and the funds invested in receivables for each period are measured using the ratio.

Based on the opinion of Sumarsan (2013: 49), the account receivable turnover ratio, namely the company's activities, is shifted through a ratio that includes collection of accounts receivable and the short cycle caused by credit sales to the entry of company cash.

Based on the opinion of Gumanti (2011: 116), that the length of time required to receive cash as well as payment of payments made on credit is all shown through the turnover of accounts receivable.

Based on the opinion of Kasmir (2012: 176), how to calculate receivable turnover is:



$$\text{Receivable Turnover} = \frac{\text{Credit sales}}{\text{Average accounts receivable}}$$

2.4 Theory of Sales Growth

Based on Fahmi's opinion (2014: 82), the growth ratio is the size of the company's potential when maintaining its position in the industry and economic development in general, measured by using a ratio.

Based on the opinion of Harahap (2008: 309), sales growth is a reduction between the current sales amount and the previous period with a comparison in the sales of the previous period.

Based on the opinion of Kasmir (2012: 114), the growth ratio is the potential for a company to maintain its position in its economy in the middle of economic growth as well as its business sector which is needed through the existence of a ratio.

Based on Fahmi's opinion (2014: 82), the methods used to calculate sales growth are:

$$\text{Pertumbuhan penjualan} = \frac{\text{This year's sales} - \text{Last year's sales}}{\text{Last year's sales}}$$

2.5 Theory of Return On Assets

Based on the opinion of Sudana (2011: 22), Return On Asset is used to determine the potential of the company in all activities obtained from the after-tax profit.

Based on the opinion of Hanafi (2016: 157), Return On Asset is used in measuring the potential of a company in earning profits obtained from the total assets (assets) owned by the company after adjusting any costs funded by assets.

Based on the opinion of Hery (2016: 193), Return On Asset is the amount of the contribution of assets to net income as indicated by the ratio. Which means, this ratio is used in measuring the amount of net profit obtained from each rupiah of funds invested in total assets.

Based on the opinion of Sudana (2011: 22), the methods for measuring return on assets are:

$$\text{Return On Asset (ROA)} = \frac{\text{earning after tax}}{\text{total asset}}$$

2.6 Effect of Debt to Asset Ratio on Return On Assets

According to Hery's (2016: 163) opinion, the high solvency ratio (having a large debt) in the company can have an effect on the occurrence of large financial obstacles, but also have the opportunity to generate high profits.

Based on the opinion of Horne and Wachowicz (2014: 258), if the old company's debt period expires, the company's funding will be more expensive. As a result, there are profits as well as losses at risk in profitability. It means the risk of short-term debt is greater than long-term debt, but the payment is easier.

Based on the opinion of Kasmir (2012: 152), the lower the solvency ratio in the company, the smaller the impact on the loss, especially when the economy is shrinking. This results in lower returns (rate of return) when the economy increases.

2.7 Effect of Total Asset Turnover on Return On Assets

According to Brigham (2012: 136), if most of the assets are in the company, it will cause high costs to be incurred and profits will be smaller. On the other hand, if there are few assets in the company, the sales profit will be even smaller and may even be lost.

Based on the opinion of Kasmir (2012: 203), the lower Return on Assets (ROA) is due to lower profit margins due to low asset turnover. The relationship between assets and sales, namely asset turnover and calculating the effectiveness of the company in sales revenue using assets.

Based on Hery's (2016: 221) opinion, low total asset turnover means that the company has the most assets, because the total assets have not been used optimally in sales production.

2.8 Effect of Receivable Turnover on Return On Assets

According to Hery (2016: 212), a low trade receivable turnover is indicated by the greater amount of working capital invested in trade receivables (over investment) and in this it means that the company is in a bad condition. Caused by long and longer collection of debts or in another sense, it is not possible to collect accounts receivable in the short term, so it takes a long time for the company to disburse the funds that are stored in the type of accounts receivable into cash disbursement.

Based on the opinion of Sumarsan (2013: 39), if you want to get high net income in the company's income statement, then the company must be able to bear the risk of lack of cash if half of the company's revenue goes into accounts receivable. This means that the amount of cash flow received by the company is getting smaller due to the provision of credit to customers that is longer than the period given by the supplier to the company.

Based on the opinion of Sartono (2012: 119), the higher the period of collection of accounts receivable means that the credit regulation is too free, the effect will be on the bed-debt which will experience a shrinkage of profits. On the contrary, the lower the accounts receivable collection period means that credit

regulation is too difficult and the opportunity is bigger.

2.9 The Effect of Sales Growth on Return On Assets

In the opinion of Horne and Wachowicz (2014: 321), if sales increase, so must increase assets as well. On the other hand, if the company finds out that its sales requests in the next period include product schedules and receivable receivables income, the company can manage its debt maturity schedule according to the net cash flow into the coming period. The influence can maximize the company's profits.

Based on Wahyudiono's opinion (2014: 65), a steady increase in sales figures is a type of offer away for strong corporate fundamentals. The margin that has experienced an increase is an indication of the better profitability and efficiency of the company. The existence of it can determine the comparison of the company's own capabilities with other company competitors operating in the same industrial sector.

Based on the opinion of Kasmir (2012: 306), if the number of sales increases, there is an opportunity to increase the gross profit. Conversely, if the amount of sales is reduced, it will provide an opportunity to reduce gross profit.

2.10 Conceptual framework

According to the explanation above, so it can be seen in Fig 1.2 below

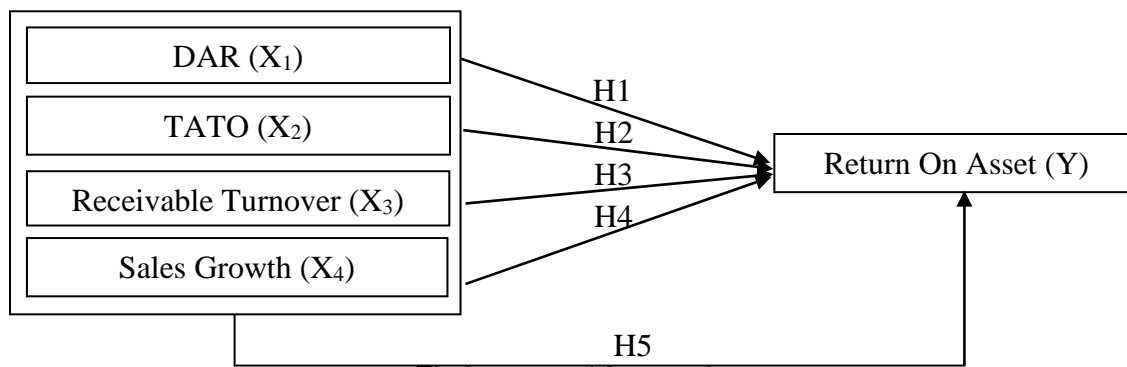


Fig 1 conceptual framework

2.11 Hypothesis

Based on this description, it can be seen in Fig. I.2 that:

H1: DAR has a partial impact on ROA in Construction, Real Estate, and Property companies listed on the IDX in 2015-2018.

H2: Total Asset Turnover has a partial impact on ROA in Construction, Real Estate, and Property companies listed on the Indonesia Stock Exchange in the 2015-2018 period.

H3: Receivable Turnover has a partial impact on ROA in construction, real estate, and property companies listed on the IDX in 2015-2018.

H4: Sales growth has a partial impact on ROA in Construction, Real Estate, and Property companies listed on the IDX in 2015-2018.

H5: DAR, TATO, Receivable Turnover and Sales Growth have a simultaneous impact on ROA in Property, Real Estate and Construction companies listed on the IDX in 2015-2018.

3. Research methodology

3.1 Research methods

a. Research Approach

This research uses a quantitative research approach. Based on the opinion of Sugiyono (2016: 7) this quantitative method uses linear data, which means that the research process has systematic steps.

b. Types of research

This research uses descriptive research. Based on the opinion of Sugiyono (2016: 53), descriptive research is the formulation of problems related to questions on the existence of one or more variables.

3.2 Population and Sample

a. Population

In the research, researchers used property, real estate and construction companies by collecting a population of 64 companies listed on the IDX for the period 2015 - 2018.

b. Sample

Based on the opinion of Sugiyono (2016: 81) the sample is an element of the characteristics and number of the population. In this study using purposive sampling method. There are qualifications on the



sample performance used by the researcher:

- 1) Real estate, construction, and property companies that do not experience gradual depreciation during the 2015-2018 period.
- 2) In the 2015-2018 period, Construction, Real Estate, and Property Companies listed on the IDX.
- 3) In the 2015-2018 period, property, construction, and real estate companies recorded financial reports and presented complete financial reports.

Table 2
Sampling Qualifications

No.	Criteria	Number of Samples
1	Property, Real Estate and Construction sector companies listed on the IDX in the 2015-2018 period	64
2	Property, Real Estate and Construction sector companies that do not book annual financial reports on a gradual basis in 2015-2018	(9)
3	Property sector companies, Real Estate as well as construction which suffered losses in the 2015-2018 period	(10)
4	Property, Real Estate and Construction sector companies that have no accounts receivable in the 2015-2018 period	(2)
The number of companies that were the research samples		43

Source: www.idx.co.id

Based on the research results in accordance with the qualifications above, the number of samples used in the study was 43 companies x 4 years = 172 data.

3.3 Data collection technique

In this study using data collection techniques with documentation techniques. Documentation techniques are carried out by the process of collecting secondary data from the annual financial statements of the Property, Real Estate and Construction companies for the years 2015-2018.

3.4 Types of Data and Data Sources

This research uses secondary data types. Sources of data are obtained from financial reports in property, real estate and construction companies listed on the IDX 2015-2018 with the website www.idx.co.id.

3.5 Identification and Operational Definition of Research Variables

The identification and operational definition of the research variables can be seen in the following table, among others:

Table 3
Operational Variables

Variable	Definition	Indicator	Measure Scale
Debt to Asset Ratio (X1)	Debt to Asset Ratio, which is used to calculate the balance between total assets and total debt using a ratio. Source: Hery (2016: 166)	DAR $= \frac{\text{total utang}}{\text{total aktiva}}$	Ratio
Total Asset Turnover (X2)	TATTOOS, namely the turnover of all assets and the number of sales earned in assets that are measured using a ratio. Source: Cashmere (2012: 185)	$\text{TATO} = \frac{\text{penjualan bersih}}{\text{total aktiva}}$ Source: Cashmere (2012: 185)	Ratio
Receivable Turnover (X3)	Receivable Turnover, which measures how long it takes for receivables to be collected per one period and the funds invested in receivables for each period are measured using a ratio. Source: Cashmere (2012: 176)	$= \frac{\text{Receivable Turnover}}{\text{rata - rata piutang}}$ Source: Cashmere (2012: 176)	Ratio
Sales Growth (X4)	Sales growth ratio, namely the amount of potential a company has in maintaining its position in the industry and in general economic development using a ratio. Source: Fahmi (2014: 82)	$\text{Pertumbuhan Penjualan} = \frac{\text{penjualan tahun berjalan} - \text{penjualan sebelumnya}}{\text{penjualan sebelumnya}}$ Source: Fahmi (2014: 82)	Ratio

Variable	Definition	Indicator	Measure Scale
Return On Asset (Y)	Return On Asset is used to understand the potential of the company on the overall assets obtained from the profit after tax. Source: Sudana (2011: 22)	$ROA = \frac{\text{earning after tax}}{\text{total asset}}$ Source: Sudana (2011: 22)	Ratio

3.6 Data analysis technique

a. Research Model

Multiple linear regression analysis is used to test hypotheses where more than one independent variable is associated in the regression model.

The multiple regression analysis equations include:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e$$

Declared for:

$$Y = ROA$$

a = Constant

b₁-b₄ = Coefficient

X₁ = DAR

X₂ = TATTOOS

X₃ = Receivable Turnover (RT)

X₄ = Sales Growth

e = Residual Error

b. Classic assumption test

1) Normality test

Based on the opinion of Ghozali (2013: 154), testing in the regression model is used in the normality test, the normal distribution that is owned by the disturbing variable. Then it is seen that the normal distribution is followed by the residual value. In this study, the normality test was used using the non-parametric statistics Kolmogorov Smirnov Test.

2) Multicollinearity Test

Based on the opinion of Ghozali (2013: 103), testing in the regression model is used in the multicollinearity test where there is a relationship between the independent (Independent Variables). In this test, determining the multicollinearity can be seen from the Tolerance and Variance Inflation Factor (VIF).

3) Autocorrelation Test

Based on Siahian's (2012: 127) opinion, the relationship between inhibitory complaints in the t1 period (previously) is shown in the autocorrelation test. The population variance cannot be calculated in the sample variance which is the effect of the presence of autocorrelation in a regression model.

4) Heteroscedasticity Test

Based on the opinion of Ghozali (2013: 134), heteroscedasticity is a condition in which variants of the residuals are different for all observations in the regression model. The Spearman's rho test is used to test for the absence of detectable heteroscedasticity.

c. Hypothesis testing

1) Hypothesis Determination Coefficient

Based on the opinion of Ghozali (2013: 95), the coefficient of determination (R²) is used in measuring the potential of the model in describing the dependent variation. Which is the numbers 0 and 1 means the coefficient value.

2) Partial Hypothesis Test (t test)

Hypothesis test based on partial (t test) is used in determining how far the independent variable based on the individual affects the dependent variable.

Qualifications for decision making comply with several policies, including:

H₀: b₁, b₂, b₃, b₄ = 0 (DAR, TATTOO, Receivable Turnover, and sales growth does not have an impact on ROA in Property, Real Estate and Construction Companies listed on the IDX in 2015-2018).

H_a: b₁, b₂, b₃, b₄ ≠ 0 (DAR, TATO, Receivable Turnover, and sales growth have an impact on ROA in Property, Real Estate and Construction Companies listed on the IDX for the 2015-2018 period).

In making decisions must comply with policies. Therefore, criteria are needed for making decisions,



among other things:

If $t < t_{table}$; so that H_a is rejected and H_0 is accepted, with $\alpha = 0.05$

If $t > t_{table}$; so that H_a is accepted and H_0 is rejected, with $\alpha = 0.05$.

Research hypothesis testing (t test):

- a) H_0 is accepted and H_a is rejected (partially based independent variables have no effect on the dependent variable).
- b) H_0 is rejected and H_a is accepted (partially based independent variables have an effect on the dependent variable).

3) Simultaneous Hypothesis Test (Test f)

Determining whether the independent variables simultaneously affect the dependent variable or not, then you must use the hypothesis test simultaneously in testing. Qualifications in submitting the need to comply with the policy include:

$H_0: b_1 = b_2 = b_3 = 0$ (DAR, TATO, Receivable Turnover, and sales growth do not have an impact on ROA in Property, Real Estate and Construction Companies listed on the IDX for the 2015-2018 Period).

$H_a: b_1 = b_2 = b_3 \neq 0$ (DAR, TATO, Receivable Turnover, and sales growth have an impact on ROA in real estate, construction and property companies, which are listed on the IDX in 2015-2018).

Qualifications for making decisions to comply with the policy include:

If $f_{count} < f_{table}$, so H_a is rejected and H_0 is accepted, with $\alpha = 0.05$

If $f_{count} > f_{table}$, so that H_a is accepted and H_0 is rejected, with $\alpha = 0.05$

Testing the research hypothesis (Test f), among others:

- a) H_a is rejected and H_0 is accepted (the independent variable simultaneously has no impact on the dependent variable).
- b) H_a is accepted and H_0 is rejected (the independent variable simultaneously impacts the dependent variable).

4. Research Results and Wetting

4.1 Descriptive statistics

The number of samples in this study was 172 data from 43 sample companies multiplied by 4 years of the study period (2015-2018). In this study, it can be seen that the results of descriptive statistical tests in the table include:

Table 3
Descriptive Statistics
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
TATO	172	,012	1,805	,31248	,263071
DAR	172	,062	,840	,43537	,190077
Receivable_Turnover	172	,499	396,503	20,20692	48,727817
Pertumbuhan_Penjualan	172	-,912	4,369	,10820	,458150
ROA	172	,000	,359	,05601	,052513
Valid N (listwise)	172				

Debt to Asset Ratio has a value of at least 0.062 obtained by PT. Sitara Propertindo Tbk in 2018, the highest value of 0.840 was obtained by PT. Acset Indonusa Tbk in 2018 and the average value was 0.43537.

Total Asset Turnover has a value of at least 0.012 obtained by PT. Greenwood Sejahtera Tbk in 2015, the highest value of 1.805 was obtained by PT. Nusa Raya Cipta Tbk in 2015 and an average value of 0.31248.

Receivable Turnover has a value of at least 0.499 which is obtained by PT. PP Properti Tbk in 2018, the highest value of 396,503 obtained by PT. Gowa Makassar Tourism Tbk in 2016 and the average value was 20,20692.

Sales growth has a value of at least -0.912 obtained by PT. Fortune Mate Indonesia Tbk in 2017, the highest value of 4,369 was obtained by PT. Fortune Mate Indonesia Tbk in 2015 and the mean was 0.10820.

Return On Asset has a value of at least 0,000, namely at PT. Gading Development Tbk in 2017, PT.



Pikko Land Development Tbk in 2018 and PT. Wijaya Karya in 2018 with the greatest value of 0.359 at PT. Fortune Mate Indonesia Tbk in 2016 and the mean was 0.05601.

4.2 Classic assumption test

a. Normality test

In this study the data did not meet the normality assumption because the significant value obtained was $0.019 < 0.05$, so it is necessary to improve the selected data using the SQRT transformation. In this study there are normality test results which can be seen below:

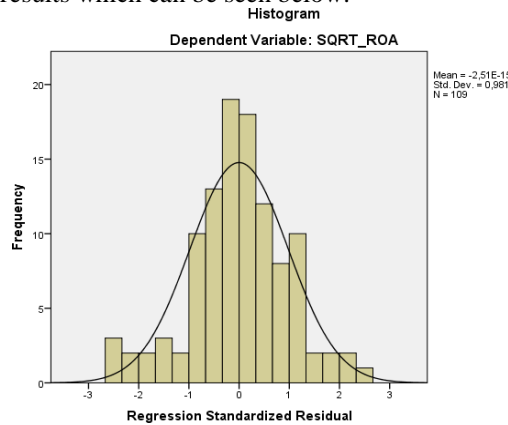


Fig 2 Histogram Normality Test

From the graph the histogram shows that after the transformation the data has a normal distribution because it is symmetrical not left or right in the visual graph. Not only the normality assumption histogram can also be seen to the right or to the left. Besides the histogram, the P-Plot graph can be seen from the normality assumption.

Normal P-P Plot of Regression Standardized Residual

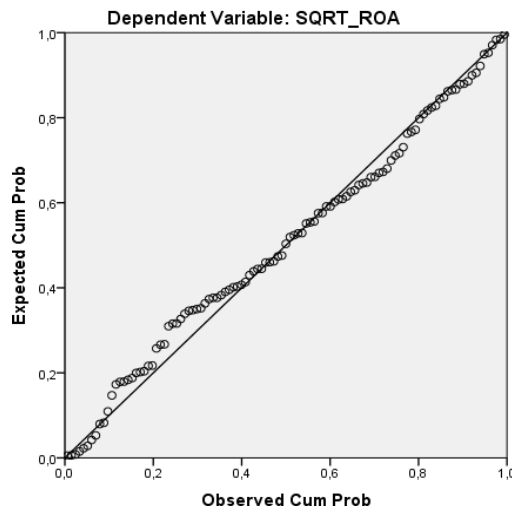


Fig 3 P-P Plot Normality Test

From the P Plot graph, it shows that the data has a normal distribution which can be seen from the diagonal line followed by the moving plot.

Non-parametric statistics One Sample Kolmogrov-Smirnov Test (KS) was used in testing normality in his research. For distribution data decision making, it can be known with the following provisions:

- 1) If the significant value > 0.05 is said to be normal distribution.
- 2) If the significant value < 0.05 , it is said that the distribution is not normal.

Table 3
Results of the One Sample Kolmogrov-Smirnov Test (KS)
One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		109
Normal Parameters ^{a,b}	Mean	,0000000
	Std. Deviation	,08560082
Most Extreme Differences	Absolute	,077
	Positive	,050
	Negative	-,077
Kolmogorov-Smirnov Z		,805
Asymp. Sig. (2-tailed)		,536

a. Test distribution is Normal.

b. Calculated from data.

Based on the results of the KS test, a significant value of $0.536 > 0.05$ can be obtained, it can be concluded if the data after being transformed has sufficient normality assumptions.

b. Multicollinearity Test

The multicollinearity test is the second assumption requirement after normality. To see whether the independent variables have no correlation, the VIF and tolerance values can be found.

Table 4
Multicollinearity Test
Coefficients^a

Model	Collinearity Statistics	
	Tolerance	VIF
1 SQRT_TATO	,595	1,681
SQRT_DAR	,559	1,789
SQRT_Receivable_Turnover	,916	1,092
SQRT_Pertumbuhan_Penjualan	,963	1,038

a. Dependent Variable: SQRT_ROA

The multicollinearity test results both before and after the data transformation show that the independent variables are not correlated because each independent variable has less than 10 is said to be a VIF value, otherwise if each independent variable exceeds 0.10 it can be said to be a tolerance value.

c. Autocorrelation Test

A good regression must fulfill the third assumption, that is, there is no correlation. The test results can be seen below:

Table 5
Autocorrelation Test
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,496 ^a	,246	,217	,08723	1,563

a. Predictors: (Constant), SQRT_Pertumbuhan_Penjualan, SQRT_TATO, SQRT_Receivable_Turnover, SQRT_DAR

b. Dependent Variable: SQRT_ROA

Based on Sihaan's theory (2012: 127), if the Durbin Watson value lies between 1.55 and 2.46 then there is no autocorrelation. Therefore, it can be explained that the value of $1.55 < 1.563 < 2.46$ means that there is no autocorecacion in this study.

d. Heteroscedasticity Test

In this study, the heteroscedasticity test was used with statistical and graphic methods, where the statistical method was chosen using the Spearman's rho test.

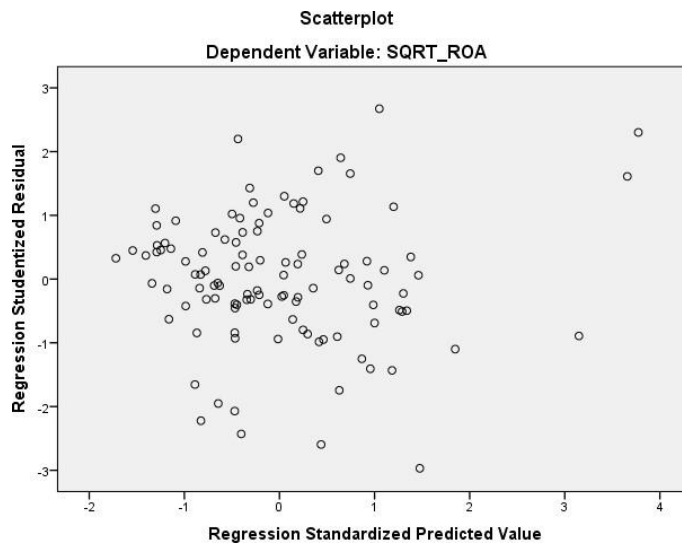


Fig 4 Scatterplot Heteroscedasticity Test

From the results of the scatterplot graph test, the data shows that the plots have been scattered out of order and no patterns have been formed. The data is scattered below and above the zero line on the Y axis, so that the data in this study does not have heteroscedasticity, so it is sufficient for the classical assumption test requirements.

The Spearman's rho test is used in the statistical test which can be seen in the table below:

Table 6
Spearman's rho test
Correlations

			SQRT_TATO	SQRT_DAR	SQRT_Receivable_Turnover	SQRT Pertumbuhan Penjualan	Unstandardized Residual
Spearman's rho	SQRT_TATO	Correlation Coefficient	1,000	,558**	,060	,043	-,069
		Sig. (2-tailed)	.	,000	,438	,658	,475
		N	172	172	172	109	109
	SQRT_DAR	Correlation Coefficient	,558**	1,000	-,201**	-,048	-,067
		Sig. (2-tailed)	,000	.	,008	,621	,489
		N	172	172	172	109	109
	SQRT_Receivable_Turnover	Correlation Coefficient	,060	-,201**	1,000	-,069	,101
		Sig. (2-tailed)	,438	,008	.	,477	,294
		N	172	172	172	109	109
	SQRT_Pertumbuhan_Penjualan	Correlation Coefficient	,043	-,048	-,069	1,000	-,094
		Sig. (2-tailed)	,658	,621	,477	.	,331
		N	109	109	109	109	109
	Unstandardized Residual	Correlation Coefficient	-,069	-,067	,101	-,094	1,000
		Sig. (2-tailed)	,475	,489	,294	,331	.
		N	109	109	109	109	109

** . Correlation is significant at the 0.01 level (2-tailed).

The results of the Spearman's rho test show the data in this study, the significant value limit is smaller than the four independent variables, which is more than 0.05.



4.3 Multiple Linear Regression Analysis

Table 7
Multiple Linear Regression Analysis Equation
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,223	,047		4,686	,000
SQRT_TATO	,215	,051	,465	4,211	,000
SQRT_DAR	-,254	,072	-,400	-3,514	,001
SQRT_Receivable_Turnover	,009	,003	,229	2,568	,012
SQRT_Pertumbuhan_Penjualan	,054	,030	,156	1,800	,075

a. Dependent Variable: SQRT_ROA

How to calculate multiple regression in this study, namely:

$$ROA = 0.223 - 0.254 DAR + 0.215 TATO + 0.009 RT + 0.054 \text{ Sales Growth}$$

From the calculation of multiple regressions it can be described below:

- The constant (a) is 0.223, meaning that if the four independent variables are constant or have a value of 0, then ROA will increase by 0.223 units.
- b1X1 of -0.254 means that every 1 unit increase in DAR can result in a depreciation of ROA of 0.254 units.
- b2X2 of 0.215 means that each 1 unit increase in TATO can cause an increase in ROA of 0.215 units.
- b3X3 of 0.009 means that each increase in RT of 1 unit can cause an increase in ROA of 0.009 units.
- b4X4 of 0.054 means that each 1 unit increase in sales growth can lead to an increase in ROA of 0.054 units.

4.4 Hypothesis testing

a. Coefficient of Determination

Table 8
Determination Coefficient Test
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,496 ^a	,246	,217	,08723

a. Predictors: (Constant), SQRT_Pertumbuhan_Penjualan, SQRT_TATO, SQRT_Receivable_Turnover, SQRT_DAR

The amount of variation from the independent variable in the dependent variable is seen in the Adjusted R Square value of 0.217, which means that it is 21.7% of the ROA variation that can be described by the four X variables used, namely (Sales growth, Receivable Turnover, TATO, and DAR) where the rest 78.3% was due to other factors, for example working capital, cash turnover, and so on.

b. F test

Table 9
F test
ANOVA^a

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	,258	4	,064	8,464	,000 ^b
Residual	,791	104	,008		
Total	1,049	108			

a. Dependent Variable: SQRT_ROA

b. Predictors: (Constant), SQRT_Pertumbuhan_Penjualan, SQRT_TATO, SQRT_Receivable_Turnover, SQRT_DAR

The value of the F table for df 1 = 4 and df 2 = 104 is 2.46. By looking at the results of the F test, the calculated F value (8,464) > F table 2.46 and a significant value of 0,000 < 0.05 so that H_a is accepted and H₀ is rejected which means (sales growth, Receivable Turnover, DAR, and TATO) based on simultaneous significant impact in Real Estate, ROA of Property, and Construction companies listed on the IDX for 2015 - 2018.

c. T test

Table 10
T test
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,223	,047		4,686	,000
SQRT_TATO	,215	,051	,465	4,211	,000
SQRT_DAR	-,254	,072	-,400	-3,514	,001
SQRT_Receivable_Turnover	,009	,003	,229	2,568	,012
SQRT_Pertumbuhan_Penjualan	,054	,030	,156	1,800	,075

a. Dependent Variable: SQRT_ROA

The amount of t table is in alpha 0.05 (two tailed), df 104 which is 1.98304. By comparing the test results partially with the size of the t table:

- 1) In the 2015-2018 period, the value-tcount <-ttable or -3.514 <- 1.98304 is the result of the t test for the DAR variable and if Ha is accepted, the significant value is 0.001 <0.05, it means that the DAR variable has a negative effect on ROA Property, Real Estate and Construction listed on the IDX.
- 2) In 2015-2018 the value of tcount> ttable or 4.211> 1.98304 is the result of the t test for the Total Asset Turnover variable and if Ha is accepted, the significant value is 0.000 <0.05, it means that the TATO variable has a positive effect on ROA of Property, Real Estate and Construction companies. listed on the IDX.
- 3) In 2015-2018 the value of tcount> ttable or 2.568> 1.98304 is the result of the t test for the Receivable Turnover variable and if Ha is accepted, the significant value is 0.012 <0.05, which means that the Receivable Turnover variable has a positive effect on ROA of Property, Real Estate companies and Construction listed on the IDX.
- 4) In 2015-2018 the value of tcount <ttable or 1.800 <1.98304 is the result of the t test for the sales growth variable and if Ho is accepted, the significant value is 0.075> 0.05, which means that sales growth has no effect on ROA of Property, Real Estate and Construction companies. listed on the IDX.

4.5 Discussion

a. Effect of X1 on Y

The results of this study can prove that there is a negative and significant effect of DAR on ROA. The results of previous research by Aulia et al. (2020) also showed that the impact of DAR on ROA was negatively and significantly significant. These findings are in line with Hery's (2016: 163) theory, suggesting that the high solvency ratio in companies can affect the size of financial constraints, but also has a good opportunity to produce large profits.

b. Effect of X2 on Y

The results of this research can prove that TATO has a significant effect on ROA and has a positive effect. In the results of previous research, Indriyani, et al (2017) also showed a positive and significant impact on the TATO variable on the ROA variable.

In this field, asset turnover is very important because this sector is supported by high assets, with high assets the possibility of the company getting a big profit because it has the opportunity to increase sales, because with large assets, this sector is able to operate properly.

c. Effect of X3 on Y

The results of the study can state that there is a significant Receivable Turnover on ROA and has a positive effect. The results of Canizio's (2017) previous research also showed the impact of Receivable Turnover on ROA. The results of the study are in line with Sumarsan's (2013: 39) theory, which states that the high net income on the company's income statement, however, the company must be prepared to experience cash shortage conflicts if half of sales or income are mostly from accounts receivable. This means that the amount of money flows received by the company will be small due to the provision of credit to customers that is longer than the period given by the supplier to the company

d. Effect of X4 on Y

The results of this study cannot prove there is a positive effect but there is no significant sales growth on ROA. The results of previous research by Armyta, et al (2020) also showed that sales growth had no impact on ROA.



The results of this study are not in line with the theory of Horne and Wachowicz (2009: 321), if there is an increase in sales, so that the assets also increase, on the other hand, if the company is certain of its seller's demand for the future which includes the product schedule and the results of its receivables. then the company can be ready to take care of the due schedule of its debts in net cash flow for the next period. The effect is, the benefits will be even greater.

5. Conclusion

In this study the authors concluded that:

- a. DAR negatively and significantly affects Construction, Real Estate, and ROA of Property companies listed on the IDX in 2015 - 2018
- b. Total Asset Turnover positively and significantly affects Real Estate, Construction, and ROA of property companies listed on the IDX in 2015 - 2018
- c. Receivable Turnover positively and significantly affects the ROA of property, construction and real estate companies listed on the IDX in the 2015 - 2018 period
- d. Sales growth positively but not significantly affects Real Estate, Construction, and ROA of Property companies listed on the IDX in 2015 - 2018
- e. Simultaneously all the independent variables (sales growth, DAR, TATO, and Total Receivable Turnover) significantly affect the ROA of Property, Real Estate and Construction companies listed on the IDX in 2015 - 2018.
- f. The magnitude of the impact of variations in the independent variable on the dependent variable is known from the adjusted R Square value on the coefficient of determination with the magnitude of the influence of 21.7% where the remaining 78.3% is influenced by other variables.

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