

Effect of Debt To Equity Ratio, Firm Size and Sales Growth on Return on Assets In Manufacturing Companies 'Food and Beverage' Listed on the Indonesia Stock Exchange (IDX)

Sopandi* & Rita Yuniarti

Master of Accounting, Universitas Widyatama, Bandung, Indonesia

Abstract

This study aims to determine whether there is an effect of debt to equity ratio, firm size and sales growth on return on assets. Researchers used quantitative methods with descriptive and verification approaches as a research method. Secondary data is used as data. The population of this study are 24 food and beverage manufacturing companies listed on the Indonesia Stock Exchange in 2019-2022. The sampling technique uses saturated samples so that a sample of 24 companies is obtained. To measure the effect of the independent variable on the dependent variable, researchers used panel data regression analysis, classical assumption test, goodness of fit test and hypothesis testing. The results of the T test show that the debt to equity ratio has a negative and significant effect on ROA partially. Firm Size has no effect on ROA and Sales Growth has no effect on ROA. The results of the F test show that simultaneously debt to equity ratio, firm size and sales growth have a significant effect on return on assets

Keywords:. Debt to Equity Ratio, Firm Size, Sales Growth dan Return on Asset

Received: 5 August 2023

Revised: 19 September 2023

Accepted: 6 October 2023

1. Introduction

Companies are all forms of business entities that carry out activities continuously and permanently with the ultimate goal of obtaining profits or profits, whether carried out by individuals or business entities that are already in the form of legal entities or not yet in the form of legal entities, which are domiciled and established in the territory of the Republic of Indonesia (Law of the Republic of Indonesia number 8 of 1997). In the era of globalization, the performance of financial information is one of the important issues whose information is needed by all stakeholders, and this information can be seen from financial statements. The profitability ratio is a ratio to assess the company's ability to seek profits (Kasmir, 2012). A measuring tool that can be used to measure profitability is Return on Assets.

According to (Kasmir, 2012)), Return on Assets (ROA) is a ratio that shows the return on the amount of assets used in the company. This ratio looks at the extent to which the investment that has been invested is able to return returns on profits as expected. Companies that have a high percentage of return on assets illustrate that the profits generated by the company are high as well. Therefore, the return on asset ratio is used by management as an indicator of the company's success in generating profits. Return on assets is the easiest form of profitability analysis by relating reported net income to total assets on the balance sheet (Helfert, 1996).

The Central Statistics Agency (BPS) noted that the gross domestic product (GDP) of the food and beverage industry grew by 4.9% in 2022, however, the growth performance of the food and beverage industry has not fully recovered to its position before the Covid-19 pandemic in 2019, which was 7.78%. The growth of the performance of the food and beverage industry has consistently grown since the last decade. During a certain period, the highest growth occurred in 2012 with a percentage of 10.33%, while the slowest growth of the food and beverage industry occurred in 2020, which was 1.58%. This is in line with the COVID-19 pandemic in Indonesia (Statistik, 2022).

* Corresponding author.

E-mail address: sopandi@widyatama.ac.id

The Return on Asset performance data for food and beverage manufacturing companies from 2019 – 2022 listed on the Indonesia Stock Exchange, is attached as follows:

Table 1. Return on Assets in Food and Beverage Companies

No.	Code	Company Name	ROA (%)			
			2019	2020	2021	2022
1	AISI	Three Pillars of Sejahtera Food Tbk	60.70	59.91	0.55	-3.41
2	ALTO	Tri Banyan Tirta Tbk	-0.58	-0.01	-0.82	-1.57
3	CAMP	Campina Ice Cream Industry Tbk	7.26	4.05	8.72	11.28
4	CEKA	Wilmar Cahaya Indonesia Tbk	15.47	11.61	11.02	12.84
5	CLEO	Sariguna Primatirta Tbk	10.35	10.13	13.40	11.55
6	COCO	Wahana Interfood Nusantara Tbk	3.18	1.04	2.30	1.36
7	DLTA	Delta Djakarta Tbk	21.89	9.72	14.37	17.67
8	FOOD	Sentra Food Indonesia Tbk	1.16	-13.44	-11.98	-18.59
9	GOOD	Garudafood Putra Putri Jaya Tbk	8.23	3.95	6.28	5.80
10	HOCKEY	Buyung Poetra Sembada Tbk	12.22	4.19	1.29	0.22
11	ICBP	Indofood CBP Sukses Makmur Tbk	13.02	6.36	5.41	3.98
12	INDP	Indofood Sukses Makmur Tbk	5.10	4.27	4.26	3.52
13	CHEESE	Mulia Boga Raya Tbk	14.71	17.93	18.85	13.65
14	MLBI	Multi Bintang Indonesia Tbk	41.66	9.83	22.78	27.40
15	MYOR	Mayora Indah Tbk	10.44	10.42	5.96	8.72
16	PANI	Pratama Abadi Nusa Industri Tbk	-1.02	0.20	1.01	0.87
17	PCAR	Prima Cakrawala Abadi Tbk	-8.22	-15.43	1.17	4.80
18	PSDN	Prashida Aneka Niaga Tbk	-6.20	-8.10	-12.25	-5.85
19	PSGO	Palma Serasih Tbk	-5.04	0.78	5.73	6.22
20	BREAD	Nippon Indosari Corporindo Tbk	6.43	4.83	6.71	10.46
21	SKBM	Sekar Bumi Tbk	0.23	0.58	1.50	4.22
22	SKLT	Sekar Laut Tbk	5.69	5.49	9.51	7.27
23	STTP	Siantar Top Tbk	16.75	47.95	45.80	36.87
24	ULTJ	Ultrajaya Milk Industry and Trading Company Tbk	15.62	12.56	17.17	13.03
Average			10.38	7.87	7.45	7.18

From table 1, it can be concluded that the ROA results each year tend to decrease. The explanation can be seen that the movement of return on assets in the food and beverage manufacturing sector from 2019 to 2022 has decreased. In 2019 it was 10.38, then in 2020 it decreased to 7.87, then in 2021 it decreased again to 7.45 and in 2022 it decreased to 7.18. Return on assets can be both positive and negative. Companies that have a high percentage of return on assets illustrate that the profit generated by the company is high as well. The return on asset ratio is used by management as an indicator of the company's success in generating profits.

With a decrease in return on assets caused by several factors, it will certainly have an impact on the profitability of the company. So the indicator in this study that is used as a measuring tool of profitability is Return on Assets. Variables that can affect return on assets include debt to equity ratio, firm size, and sales growth.

Table 2. Assessment of the Company's Financial Ratios

No.	Company Code		Year			
			2019	2020	2021	2022
1	CAMP	<i>DER</i>	0.13	0.13	0.12	0.14
		<i>Firm Size</i>	27.69	27.71	27.77	27.70
		<i>Sales Growth</i>	0.07	-0.07	0.07	0.11
		<i>ROA</i>	7.26	4.05	8.72	11.28
2	CEKA	<i>DER</i>	0.23	0.24	0.22	0.11
		<i>Firm Size</i>	27.96	28.08	28.16	28.17
		<i>Sales Growth</i>	-0.14	0.16	0.47	0.15
		<i>ROA</i>	15.47	11.61	11.02	12.84
3	ICBP	<i>DER</i>	0.45	1.06	1.16	1.01
		<i>Firm Size</i>	31.29	32.27	32.40	32.38
		<i>Sales Growth</i>	0.10	0.10	0.22	0.14
		<i>ROA</i>	13.02	6.36	5.41	3.98

Based on table 2, the Debt to Equity Ratio of all companies fluctuates as well as Return on Assets. In 2021-2022, Campina Ice Cream Industry Tbk (CAMP) increased by 0.02 and Return on Assets increased by 2.56. This is not in accordance with (Hantono, 2021) that if the Debt to Equity Ratio is high then the Return on Assets is low, because a high level of debt will affect the company's profits.

In 2020-2021, PT Wilmar Cahaya Indonesia Tbk. (CEKA) for firm size increased by 0.08 and Return on Assets decreased by 0.59. This is not in accordance with (Dj, 2016) if the higher the firm size, the higher the profitability obtained by the company. Because higher company value can increase company profits.

In 2020-2021, Indofood CBP Sukses Makmur Tbk (ICBP) sales growth increased by 0.12 and return on assets decreased by 0.95. This is not in accordance with the results of research by (Suriadi, 2013) where income increases, then the level of sales will also increase. The greater the percentage of revenue growth, the profitability will also increase.

Debt to equity Ratio (DER) is a measure used in analyzing financial statements to pay attention to the amount of collateral available to creditors (Irham, 2012). Meanwhile, according to (Brigham & Houston, 2016), debt to equity ratio is used to measure the level of debt use against total assets owned. This ratio shows the company's ability to fulfill all its obligations both short and long term. Long-term creditors are very concerned about the company's ability to meet short-term obligations, namely the ability to pay interest and long-term, namely the ability to pay the principal of the loan. Debt to equity ratio (DER) is part of the ratio of solvency to capital owned by the company. (Ang, 1997) stated that the higher the DER will affect the amount of profitability (return on assets) achieved by the company. The greater this ratio means the smaller the own capital in guaranteeing its debt, so for the company it will be morerisky. Conversely, a smaller debt ratio indicates better performance, because it causes higher returns. A large debt to equity ratio means having debt that is greater than its own capital, so the company pays a fairly high interest on debt which will affect the level of profitability. This is supported by the results of research conducted by (Linggasari & Adnantara, 2020) concluded that the Debt to Equity Ratio has a significant negative effect on Return on Assets. Then in line with the results of research by (Larasati & Purwanto, 2022) which states that the Debt to Equity Ratio has a significant negative

effect on Return on Assets and in the research of (Putra & Badjra, 2015) states that the Debt to Equity Ratio has a significant negative effect on Return on Assets.

Another factor that affects return on assets is firm size. According to (Hartono, 2015) firm size or company size as the logarithm of total assets is predicted to have a negative relationship with the ratio, then large companies tend to invest in projects that have low variance, to avoid retained earnings. Firm size shows how much total assets owned by the company or total assets recorded in the company's financial statements at the end of the year (Hama & Santosa, 2018). This is supported by the theory of (Munawir, 2000) saying that companies that have a larger company size have a stronger drive to produce a high level of profitability compared to smaller companies. Companies that have large total assets will be able to optimize financial performance with the assets they have. Based on the critical resource theory, the greater the scale of the company, the profitability will also increase, because with large assets the company will be more free to develop the company's business and ultimately get profits or profits. The above theory is supported by the results of research conducted by (Lestari, Wahyuni, Dirgantari, & Santoso, 2022) concluded that Firm Size has a significant positive effect on Return on Assets. Then research conducted by (Putri & Sugia, 2020) concluded that Firm Size has a significant positive effect on Return on Assets and research conducted by (Cahyaningati et al., 2022) concluded that Firm Size has a significant positive effect on Return on Assets.

Another indicator that affects return on assets is sales growth. According to (Harahap, 2011), sales growth shows the percentage increase in sales this year compared to last year which can be seen in the company's income statement, the higher the better. While (Tanjung, 2014) suggests that sales growth is calculated by comparing the percentage change in sales in a particular year with the previous year. A high sales growth rate will drive an increase in profits for the company, which will further contribute to an increase in retained earnings and ultimately affect the company's own capital growth. Conversely, if sales growth is low, then this will cause a decrease in profits obtained, which in turn will have an impact on the amount of retained earnings and capital growth of the company (Tanjung, 2014). In line with the theory above, supported by the results of research conducted by (Alimunir, Eryvna, & Irman, 2022) concluded that Sales growth affects Return on Assets. Then the results of research by (Ramli & Yusnaini, 2022) concluded that Sales growth affects Return on Assets and the results of research from (Hayati, Liztiara, & Muchtar, 2022) concluded that Sales growth affects Return on Assets.

Based on previous research on debt to equity ratio, firm size, sales growth to return on assets in food and beverage manufacturing companies listed on the Indonesia Stock Exchange, but showed different results. Research by (Alimunir et al., 2022) DER has no effect on ROA and sales growth has an effect on ROA. (Norfadilah & Sudarsono, 2021) DER negatively affects ROA, while firm size negatively affects ROA. In (Hantono, 2021) research, DER has an effect on ROA and sales growth has no effect on ROA. In the research of (Sutia, 2022) DER has no effect on ROA, and sales growth affects ROA. (Fatimah, Anjani, & alfianika Kurniati, 2022) explained that DER has a positive effect on ROA, and sales growth has a negative effect on ROA, while firm size has a positive effect on ROA.

2. Literature Review

2.1. Signal Theory

Signalling theory states that companies can send the right signals to users of financial and non-financial statements. Signaling theory is an investor guideline to assess the good and bad of a company (Anggarsari & Aji, 2018). In this study, the signal is the profitability of the company. If there are profits from the company, creditors and investors will not hesitate to make loans and investments. The company's task is to attract investors and lenders by showing good and neat financial statements (Eksandy & Dewi, 2019).

2.2. Return On Asset

According to (Kasmir, 2012), return on assets (ROA) is a ratio that shows the return on the number of assets used in the company. This ratio looks at the extent to which the investment that has been invested is able to return returns on profits as expected. Companies that have a high percentage of return on assets illustrate that the profits generated by the company are high as well.

2.3. Debt To Equity Ratio

According to (Irham, 2012), debt to equity ratio (DER) is a measure used in analyzing financial statements to pay attention to the amount of collateral available to creditors. Meanwhile, according to (Brigham & Houston, 2016), the debt to equity ratio is used to measure the level of debt use against total assets owned.

2.4. Firm Size

According to (Hartono, 2015) firm size or company size as the logarithm of total assets is predicted to have a negative relationship with the ratio, then large companies tend to invest in projects that have low variance, to avoid retained earnings.

2.5. Sales Growth

According to (Harahap, 2011), sales growth shows the percentage increase in sales this year compared to last year which can be seen on the company's income statement. The higher the better.

3. Method

This research is categorized as quantitative research, which is research that describes the state of a company based on data obtained indirectly sourced and published on the Indonesia Stock Exchange through the 2018-2022 www.idx.co.id of 24 companies. The samples in this study used a saturated technique, where all companies were sampled. The data taken for research is documentation in the form of company financial statement data that is recorded or officially published, in the form of an Annual Report. The data analysis methods used are descriptive analysis, panel data analysis, panel data regression model selection. And data analysis using classical assumption test, Goodness of Fit Method, hypothesis testing, f-test and t-test (partial).

4. Result

4.1. Descriptive Analysis of DER, Firm Size, Sales Growth and Return on Assets

In order to find out the picture of each variable studied, a descriptive way of statistical analysis is something that can be done. In this study descriptive statistical analysis was used by looking at maximum, minimum, and average values and standard deviations. The results of descriptive statistical analysis can be seen in the Figure 1.

	X1	X2	X3	Y
Mean	1.196785	28.37490	0.098122	8.218249
Median	0.756042	28.15897	0.100087	5.880267
Maximum	17.03699	32.82638	2.472852	60.69661
Minimum	-2.127341	25.31018	-0.998433	-18.58947
Std. Dev.	2.243072	1.817244	0.381007	13.48529
Skewness	5.518814	0.597153	3.112147	1.683682
Kurtosis	36.44634	3.343457	21.15617	7.447976
Jarque-Bera	4961.947	6.177326	1473.554	124.4945
Probability	0.000000	0.045563	0.000000	0.000000
Sum	114.8914	2723.990	9.419692	788.9519
Sum Sq. Dev.	477.9805	313.7257	13.79078	17276.04
Observations	96	96	96	96

Figure 1. Data DER, Firm Size, Sales Growth and Return on Asset 2019-2022

Based on the results of descriptive statistical analysis in the Figure 1, Return on assets as a dependent variable obtained a mean value of 8.218249, a median value of 5.880267 and a standard deviation value of 13.48529, a maximum value of 60.69661, a minimum value of -18.58947. DER as an independent variable obtained a mean value of 1.196785, a median value of 0.756042 and a standard deviation value of 2.243072 a maximum value of 17.03699, a minimum value of -2.127341. Sales Growth as a dependent variable obtained a mean value of 0.098122, a median value of 0.100087 and a standard deviation value of 0.381007, a maximum value of 2.472852, a minimum value of -0.998433.

4.2. *Chow Test*

The chow test is used to determine whether the panel data regression technique with fixed effect is better than the panel data regression model without dummy (common effect) variables. If the probability for cross-section chi square > 0.05 then the selected model is the common effect, but if the p value < 0.05 the selected model is fixed effect. Basuki (2021). The results showed that the probability value of cross-section Chi square is smaller than 0.05 or 0.0000 < 0.05, meaning that it can be concluded that it is rejected and accepted. That is, the most appropriate regression model is H₀H₁fixed effect

4.3. *Hausman Test*

The hausman test is used to determine which model is taken, whether the panel data model is with a fixed effect model or with a random effect model. If the p value of the chi square > 0.05 then the selected model is a random effect model, but if it is < 0.05 then the selected model is a fixed effect. The results showed that the probability value is 0.4386 greater than 0.05, so it can be concluded that it is accepted and rejected. This means that the most appropriate regression model to use is the H₀H₂random effect model

4.4. *Lagrange Multiplier (LM) Test*

The Lagrange Multiplier test is one of the statistical tests to find out whether the random effect model is better than the common effect model. This Lagrange Multiplier test uses the Breusch-Pagan method. If the value of the Breusch-Pagan Probability is greater than 0.05 or > 0.05, it is accepted and rejected. If the H₀H_avalue of the Breusch-Pagan Probability is less than 0.05 or < 0.05, it is rejectedH₀ and accepted H_a.

Lagrange Multiplier Tests for Random Effects
 Null hypotheses: No effects
 Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	30.79200 (0.0000)	1.519976 (0.2176)	32.31197 (0.0000)
Honda	5.549054 (0.0000)	-1.232873 (0.8912)	3.052001 (0.0011)
King-Wu	5.549054 (0.0000)	-1.232873 (0.8912)	0.725354 (0.2341)
Standardized Honda	6.010527 (0.0000)	-1.010609 (0.8439)	-0.379591 (0.6479)
Standardized King-Wu	6.010527 (0.0000)	-1.010609 (0.8439)	-1.836712 (0.9669)
Gourieroux, et al.	--	--	30.79200 (0.0000)

Figure 2. Lagrange Multiplier Test Results

Based on figure 2, it can be interpreted that the value of Breusch-Pagan probability is 0.000 less than 0.05 so it can be concluded that it is rejected and accepted. That is, the regression model is the most appropriate model to use is the H_0H_3 random effect model.

4.5. Normality test

The results of the normality test on food and beverage companies listed on the Indonesia Stock Exchange (IDX) for the 2019-2022 period using Eviews 12 software can be seen in the figure 3.

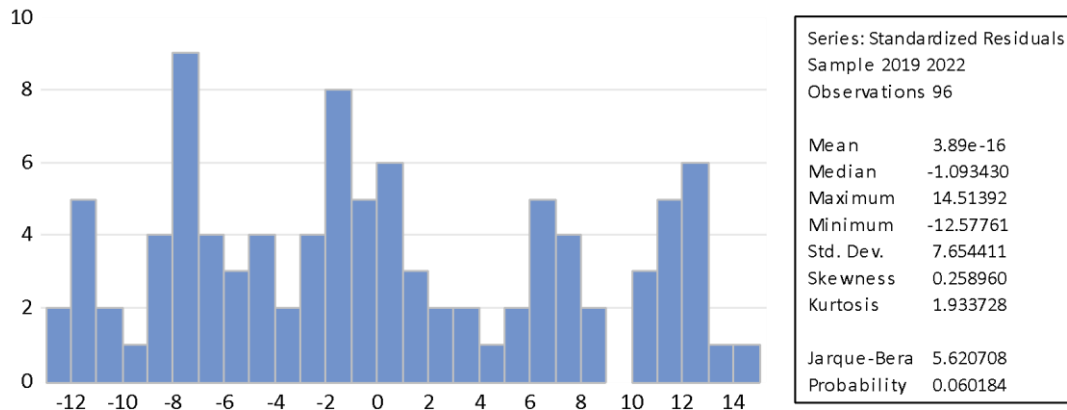


Figure 3. Normality Test Results

Based on the output above, it is known that the Jarque-Bera value is 5.620708 and the probability value is 0.060184 which is greater than 0.05 or > 0.05 . So it can be concluded that the data is normally distributed.

4.6. Heteroscedasticity Test

The heteroscedasticity test is used to test the residual value of a single data. Heteroscedasticity is the assumption in regression of residual variance from one observation to another that is not the same. A good regression model if homoscedasticity does not occur (Edison, 2019). The heteroscedasticity test in this study used the Glejser test. Regression models do not contain heteroscedastistas if the probability value of significance is above the 5% confidence level (Ningsih, 2017). Here are the results of the heteroscedasticity test (Figure 4).

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-57.24608	36.08450	-1.586445	0.1172
X1	-0.011101	0.597857	-0.018568	0.9852
X2	2.321000	1.272898	1.823399	0.0726
X3	-4.247011	2.172021	-1.955327	0.0546

Figure 4. Heteroscedasticity Test Results

Based on the figure 4, the values for probability of each independent variable are greater than the significant value or $DER > 0.05$ or $0.9852 > 0.05$, Firm Size > 0.05 or $0.0726 > 0.05$ and Sales Growth > 0.05 or $0.0546 > 0.05$. So it can be concluded that in heteroscedasticity testing there is no problem.

4.7. *Multicollinearity Test*

The multicollinearity test is a test that is applied to find out whether in the regression model a correlation between independent variables is determined. A good regression model should not correlate, so this variable is not orthogonal. Orthogonal variables are independent variables whose correlation value between independent variables is equal to zero.

Table 3. Multicollinearity Test Results

	DER	Firm Size	Sales Growth
DER	1	-0.099514	-0.126752
Firm Size	-0.099514	1	-0.108227
Sales Growth	-0.126752	-0.108227	1

Based on the calculation results of the multicollinearity test in the table 3, it shows that there are no variables that have a correlation value above 0.80. So it can be concluded that multicollinearity does not have a big problem. So that this data is free from symptoms of multicollinearity.

4.8. *Panel Data Regression Analysis*

The analysis method used in this study is panel data regression analysis. Panel data is a combination of time series data and cross section data (Basuki, 2021). The calculation results of panel data regression analysis can be seen as follows:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-19.31306	28.06861	-0.688066	0.4931
X1	-1.287715	0.636624	-2.022726	0.0460
X2	1.023394	0.986281	1.037630	0.3022
X3	0.343691	2.650159	0.129687	0.8971

Figure 5. Panel Data Regression Test Results

The panel data regression equation is as follows:

$$Y = a + b1X1it + b2X2it + b3X3it + \dots + e$$

Based on figure 4, for the calculation of regression analysis, the form of the linear regression equation is as follows:

$$ROA = -19.31306 - 1.287715 (DER) + 1.023394 (Firm Size) + 0.343691 (Sales Growth) + 0.8971$$

4.9. *Test (F)*

Test F is a joint test that aims to test all independent variables together significantly affecting the dependent variable (Edison, 2019). The decision-making criteria according to Edison (2019) are as follows:

R-squared	0.138792	Mean dependent var	8.218249
Adjusted R-squared	0.110709	S.D. dependent var	13.48529
S.E. of regression	12.71693	Akaike info criterion	7.964519
Sum squared resid	14878.27	Schwarz criterion	8.071367
Log likelihood	-378.2969	Hannan-Quinn criter.	8.007709
F-statistic	4.942220	Durbin-Watson stat	0.680594
Prob(F-statistic)	0.003161		

Figure 6. Test Result (F)

The test results obtained the significance value of the variables Debt to Equity Ratio, Firm Size and Sales Growth of $0.003161 > 0.05$, it can be concluded that the model chosen is feasible, in other words Equity Ratio, Firm Size and Sales Growth affect Return on Assets.

4.10. Partial Test (t)

The t test in this study is used to test the hypothesis partially, the results will determine the effect of independent variables which include DER, Firm Size and Sales Growth on Return on Assets. The value of the coefficient t is the value of the influence of each independent variable on the dependent variable (Edison, 2019).

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-19.31306	28.06861	-0.688066	0.4931
X1	-1.287715	0.636624	-2.022726	0.0460
X2	1.023394	0.986281	1.037630	0.3022
X3	0.343691	2.650159	0.129687	0.8971

Figure 7. Partial Test (t)

Based on the results of figure 6, it can be explained as follows:

- a. Hypothesis 1: Debt to Equity Ratio (X_1) negatively affects Return on Assets.

Test hypothesis:

H_{01} : DER has no effect on Return on Assets.

H_{A1} : DER negatively affects Return on Assets.

The test results obtained a variable probability value of Debt to Equity Ratio of $0.0460 < 0.05$, so hypothesis testing can be done. The value of the Debt to Equity Ratio coefficient shows a negative number or -1.287715 and the value obtained t_{hitung} is $-2.022726 <$ a value of t_{tabel} 2.0301, it can be concluded that H_{01} rejected means that the variable Debt to Equity Ratio has a negative effect on Return on Assets.

- b. Hypothesis 2: Firm Size (X_2) negatively affects Return on Assets.

Test hypothesis:

H_{02} : Firm Size has no effect on Return on Assets.

H_{A2} : Firm Size has a positive effect on Return on Assets.

The test results obtained a Firm Size variable probability value of $0.3022 > 0.05$, so hypothesis testing cannot be done. The value of the Firm Size coefficient shows a positive number or 1.023394 and the value obtained is t_{hitung} 1.037630 $<$ a value of t_{tabel} 2.0301, it can be concluded that H_{02} accepted means that the Firm Size variable has no effect on Return on Assets.

- c. Hypothesis 3: Sales Growth (X_3) has no effect on Return on Assets.

Test hypothesis:

H_{03} : Sales Growth has no effect on Return on Assets.

H_{A3} : Sales Growth has a positive effect on Return on Assets.

The test results obtained a probability value of the Sales Growth variable of $0.8971 < 0.05$, so hypothesis testing cannot be done. The value of the Sales Growth coefficient shows a positive number of 0.343691 and the value obtained t_{hitung} is $0.129687 <$ a value of t_{tabel} 2.0301, it can be concluded that H_{03} accepted means that the Sales Growth variable has no effect on Return on Assets.

4.11. Model Fit Test (Goodness of Fit)

Model suitability test is for testing paradigms or conceptual models of research, namely testing the research framework in the form of theoretical research models that will be proven empirically or "in the field". Tests are performed to obtain the model Conformity value. (Goodness of Fit) the associative relationship of theory with reality in the field. Goodness of fit testing uses correlation values measured using coefficients of determination (Edison, 2019).

The results showed that the Goodness of Fit test value can be seen from the Adjusted R-squared value of 0.110709 or 11.0709% according to the quality of the model match, showing the results that being in the model is very weak and very not good. The Adjusted R-squared value of 0.110709, it can be concluded that all changes in the independent variables DER, Firm Size and Sales Growth contribute to the dependent variable Return on Assets by 11.0709% and the remaining 88.9291% are other independent variables that are not included in the conceptual paradigm of this study.

5. Discussions

5.1. The Effect of Debt to Equity Ratio on Return on Assets

The test results obtained a variable probability value of Debt to Equity Ratio of $0.0460 < 0.05$, so hypothesis testing can be done. The value of the Debt to Equity Ratio coefficient shows a negative number or -1.287715 and the value obtained t_{hitung} is $-2.022726 < a$ value of t_{tabel} 2.0301, it can be concluded that H_{01} rejected means that the variable Debt to Equity Ratio has a negative effect of -1.287715 on Return on Assets. So it can be interpreted that if the value of DER increases, it will have an effect on reducing the value of ROA, which means that the level of profitability will decrease. Conversely, if the DER value decreases, it will increase the ROA value.

High DER can indicate a large cost incurred by the company to meet obligations both short-term debt and long-term debt, besides that the existence of high DER has financial risk caused by the company spending too much money to fund with debt. The use of high debt results in the company having to bear fixed costs, namely interest expenses and loans that must be paid. So that in the end the company will experience a decrease in profits with the same total assets.

The results of this study are in line with research conducted by (Lingasari & Adnantara, 2020) concluding that the Debt to Equity Ratio has a significant negative effect on Return on Assets. Then in line with the results of the study (Larasati & Purwanto, 2022) stated that the Debt to Equity Ratio had a significant negative effect on Return on Assets and the research (Putra & Badjra, 2015) stated that the Debt to Equity Ratio had a significant negative effect on Return on Assets. However, in contrast to the results of research conducted by (Dananti, Nany, & Gusmao, 2022) concluded that the Debt to Equity Ratio does not have a significant effect on Return on Assets. Then (Hartono, 2015)) concluded that the Debt to Equity Ratio did not have a significant effect on Return on Assets and research from (Mutiara, Zakaria, & Anggraini, 2018) concluded that the Debt to Equity Ratio did not have a significant effect on Return on Assets.

5.2. The Effect of Firm Size on Return on Assets

The test results obtained a Firm Size variable probability value of $0.3022 > 0.05$, so hypothesis testing cannot be done. The value of the Firm Size coefficient shows a positive number or 1.023394 and the value obtained t_{hitung} is 1.037630 $< a$ value of t_{tabel} 2.0301, it can be concluded that H_{02} accepted means that the Firm Size variable has no effect on Return on Assets.

It can be interpreted by the existence of a high firm size, it turns out that the company may not necessarily be able to increase ROA. This happens because the market does not react positively to the amount of information available to companies that have a large scale and companies have not maximized their total assets so that they have not been able to increase profits for the company, this is according to the results of research from (TEBIONO & SUKADANA, 2020)

The results of this study are in line with research conducted by ((Pangalila, 2020) concluding that Firm Size does not have a significant effect on Return on Assets. Then the results of the study (Mutiara et al., 2018) concluded that Firm Size did not have a significant effect on Return on Assets and the results of research from (TEBIONO & SUKADANA, 2020) concluded that Firm Size did not have a significant effect on Return on Assets. However, the results of this study are not in line with research conducted by (Lestari et al., 2022) concluded that Firm Size has a significant positive effect on Return on Assets. Then research conducted by (Putri & Sugia, 2020) concluded that Firm Size has a significant positive effect on Return on Assets and research conducted by (Cahyaningati et al., 2022) concluded that Firm Size has a significant positive effect on Return on Assets.

5.3. The Effect of Sales Growth on Return on Assets

The test results obtained a probability value of the Sales Growth variable of $0.8971 < 0.05$, so hypothesis testing cannot be done. The value of the Sales Growth coefficient shows a positive number of 0.343691 and the value obtained t_{hitung} is $0.129687 < a$ value of t_{tabel} 2.0301, it can be concluded that H_{03} accepted means that the Sales Growth variable has no effect on Return on Assets.

From the results above, it can be concluded that Sales Growth has no effect on ROA, because with relatively small sales growth with a high profitability ratio, sales growth will not affect profitability because profitability is more domiciled by company debt. Companies that are still in the growth stage will require relatively large funding, because large companies will withhold some of their income to make investments to grow their companies, one of which is buying assets. The growth rate is shown by an increase in assets and an increase in sales which identifies the company will expand its wings by expanding, but if there is a failure it will increase company expenses.

The results of this study are in line with research conducted by (Hartono, 2015) concluded that Sales Growth has no effect on Return on Assets. Then the results of research from (Simatupang & Sari, 2021) concluded that Sales Growth has no effect on Return on Assets. And the results of research from (Nur & Mahiri, 2022) concluded that Sales Growth has no effect on Return on Assets. However, the results of this study are not in line with research conducted by (Alimunir et al., 2022) concluded that Sales growth affects Return on Assets. Then the results of research by Yusnaini et al., (2022) concluded that Sales growth affects Return on Assets and the results of research from (Hayati et al., 2022) concluded that Sales growth affects Return on Assets.

5.4. The Effect of Debt to Equity Ratio, Firm Size, and Sales Growth, on Return on Assets

The test results obtained the significance value of the variables Debt to Equity Ratio, Firm Size and Sales Growth of $0.003161 > 0.05$ then hypothesis testing can be done. The value of F_{hitung} : 4.942220 $>$ a value of F_{tabel} 2.704 can be concluded that H_{A4} accepted means that the variables Debt to Equity Ratio, Firm Size and Sales Growth simultaneously affect Return on Assets.

It can be concluded that all changes in the independent variables DER, Firm Size and Sales Growth contribute to the dependent variable Return on Assets by 13.8792% and the remaining 86.1208% are other independent variables that are not included in the conceptual paradigm of this study. Such as taxes, operating costs, interest, gross profit, and so on

5.5. Model Fit Test (Goodness of Fit)

The value of the model fit test (Goodness of Fit) can be seen from the R-squared value of 0.110709 or 11.0709% according to the quality of the model match shows the results that are in the model very weak and very not good. The R-square value of 0.110709, it can be concluded that all changes in the independent variables DER, Firm Size and Sales Growth contribute to the dependent variable Return on Assets by 11.0709% and the remaining 88.9291% are other independent variables that are not included in the conceptual paradigm of this study.

6. Conclusion

Debt to Equity Ratio partially has a significant negative effect on Return on Assets. The value of the Debt to Equity Ratio coefficient shows a negative number or -1.287715 and the value obtained t_{hitung} is $-2.022726 < a$ value of t_{tabel} : 2.0301, it can be concluded that H_{01} rejected means that the variable Debt to Equity Ratio has a negative effect of -1.287715 on Return on Assets. So it can be interpreted that if the value of DER increases, it will have an effect on reducing the value of ROA, which means that the level of profitability will decrease. Conversely, if the DER value decreases, it will increase the ROA value.

Firm Size does not have a significant effect on Return on Assets. The value of the Firm Size coefficient shows a positive number or 1.023394 and the value obtained t_{hitung} is $1.037630 < a$ value of t_{tabel} :2.0301, it can be concluded that H_{02} accepted means that the Firm Size variable has no effect on Return on Assets. It can be interpreted by the existence of a high firm size, it turns out that the company may not necessarily be able to increase ROA.

Sales Growth has no partial effect on Return on Assets. The value of the Sales Growth coefficient shows a positive number of 0.343691 and the value obtained t_{hitung} is $0.129687 < a$ value of $t_{tabel}: 2.0301$, it can be concluded that H_{03} accepted means that the Sales Growth variable has no effect on Return on Assets. So it can be concluded that Sales Growth has no effect on ROA, because with a relatively small sales growth with a high profitability ratio, sales growth will not affect profitability because the probability is more domiciled by company debt.

References

- Alimunir, Hendri, Eryvna, Eryvna, & Irman, Mimelientesa. (2022). Pengaruh Current Ratio, Debt to Equity Ratio, Total Assets Turnover, dan Sales Growth Terhadap Return on Asset Perusahaan Manufaktur Sub Sektor Makanan dan Minuman Yang Terdaftar Di Bursa Efek Indonesia Tahun 2015-2019. *LUCRUM: Jurnal Bisnis Terapan*, 1(1), 111–122.
- Ang, Robert. (1997). *Buku pintar pasar modal Indonesia*. Jakarta: Mediasoft Indonesia.
- Anggarsari, Lovi, & Aji, Tony Seno. (2018). Pengaruh ukuran perusahaan, leverage, likuiditas, perputaran modal kerja dan pertumbuhan penjualan terhadap profitabilitas (sektor industri barang dan konsumsi yang terdaftar di bursa efek indonesia periode 2013-2016). *Jurnal Ilmu Manajemen (JIM)*, 6(4), 542–549.
- Brigham, E. F., & Houston, J. F. (2016). *Dasar-Dasar Manajemen Keuangan*. Edisi 14. Buku 1. Terjemahan NI Sallama dan F. Kusumastuti. *Salemba Empat*. Jakarta.
- Cahyaningati, Retno, Lukiana, Ninik, Wiyono, M. Wimbo, Kasno, Kasno, Sholihin, Muhammad Rizalus, & Juliasari, Deni. (2022). The Effect of Covid 19 on Company Performance in Manufacturing Companies in Indonesia. *IJEED (International Journal of Entrepreneurship and Business Development)*, 5(1), 175–187.
- Dananti, Kristyana, Nany, Magdalena, & Gusmao, Eunike Frentelina. (2022). Analysis of the Financial Performance of Food and Beverage Companies Before and During the Covid-19 Pandemic in Indonesia. *International Journal of Social Science*, 1(6), 977–986.
- Dj, Yunni Rusmawati. (2016). Pengaruh Ukuran Perusahaan, Struktur Hutang, Dan Umur Perusahaan Terhadap Profitabilitas Pada Perusahaan Food & Beverages Di Bursa Efek Indonesia Tahun 2012-2014. *Jurnal Penelitian Ekonomi Dan Akuntansi (JPENSI)*, 1(2), 16-Halaman.
- Edison, Acep. (2019). Metode riset untuk bisnis dan manajemen. *Bandung: Universitas Widyatama*.
- Eksandy, Arry, & Dewi, Vera Mustika. (2019). Pengaruh perputaran modal kerja, perputaran piutang dan perputaran kas terhadap profitabilitas perusahaan (studi pada perusahaan konstruksi sektor infrastruktur di bursa efek Indonesia periode 2012-2015). *Jurnal Dinamika UMT*, 2(2), 1–14.
- Fatimah, Ika Siti, Anjani, Lulu Alfiatun, & alfianika Kurniati, Rani. (2022). FAKTOR-FAKTOR YANG BERPENGARUH TERHADAP PROFITABILITAS PERUSAHAAN MANUFAKTUR SEKTOR SEMEN. *Medikonis*, 13(2), 70–76.
- Hama, Aloisius, & Santosa, H. Pudjo. (2018). Effect of Working Capital, Company Size, and Company Growth on Profitability and Company Value. *International Journal of Social Sciences*, 4(2), 694–708.
- Hantono, Hantono. (2021). The Effect of Current Ratio, Debt to Equity, Sales Growth Towards Return on Asset At Consumer Good Companies Listed In Stock Exchange. *International Journal of Engineering Science Technologies*, 4(6), 60–70.
- Harahap, Sofyan Syafri. (2011). *Analisis kritis atas laporan keuangan*.
- Hartono, Jogiyanto. (2015). *Teori Portofolio dan Analisis Investasi (Edisi Kese)*. Yogyakarta: BPFE.
- Hayati, Dian Ratu, Liztiara, Maisya, & Muchtar, Susy. (2022). Debt financing and firm performance on manufacturing companies listed on the idx. *Jurnal Ekonomi*, 27(1), 80–93.
- Helfert, Erich A. (1996). *Teknik analisis keuangan: petunjuk praktis untuk mengelola dan mengukur kinerja perusahaan*. Jakarta: Erlangga.
- Irham, Fahmi. (2012). *Analisis laporan keuangan*. Bandung: Alfabeta.

- Kasmir, Dr. (2012). *Analisa Laporan Keuangan*. Jakarta: Raja Grafindo Persada.
- Larasati, Chesa Ivania, & Purwanto, Purwanto. (2022). How financial ratios and firm size affect profitability: Evidence from food and beverages industry in Indonesia. *The Winners*, 23(1), 43–50.
- Lestari, Lina Puji, Wahyuni, Sri, Dirgantari, Novi, & Santoso, Selamat Eko Budi. (2022). Effect of Working Capital Turnover, Capital Structure, Company Size, and Sales Growth on Profitability. *Journal of Finance and Business Digital*, 1(4), 271–288.
- Linggasari, Dewa Ayu Nyoman Yogi, & Adnantara, Komang Fridagustina. (2020). Pengaruh Der, Firm Size, Cr, Dan Wcto Terhadap Roa Pada Perusahaan Manufaktur Yang Terdaftar Di Bei Periode 2016-2018. *Journal Research of Accounting*, 2(1), 33–49.
- Munawir, Selamat. (2000). *Analisa laporan Keuangan, liberty*. Yogyakarta.
- Mutiara, Yosia Taruli, Zakaria, Adam, & Anggraini, Ratna. (2018). The influence of company size, company profit, solvency and CPA firm size on audit report lag. *Journal of Economics Finance and Accounting*, 5(1), 1–10.
- Norfadilah, Norfadilah, & Sudarsono, Bambang. (2021). Pengaruh Modal Kerja, Financial Leverage, Aktivitas dan Firm Size terhadap Profitabilitas Pada Perusahaan Manufaktur Sub Sektor Makanan dan Minuman yang Terdaftar Di Bursa Efek Indonesia (BEI) Periode 2015-2019. *Jurnal Kajian Ilmu Manajemen (JKIM)*, 1(4).
- Nur, Latief Z., & Mahiri, Eli Achmad. (2022). The Effect Of Sales Growth And Company Size On Profitability (Study On Food Sub-Sector Companies On The Indonesia Stock Exchange For The 2019-2021 Period). *Enrichment: Journal of Management*, 12(2), 2409–2418.
- Pangalila, Jovan Leonard Mahesa. (2020). THE INFLUENCE OF LEVERAGE AND COMPANY SIZE ON PROFITABILITY (Study on Manufacturing Companies Listed in Indonesia Stock Exchange). *Jurnal Ilmiah Mahasiswa FEB*, 9(1).
- Putra, A. A. Wela Yulia, & Badjra, Ida Bagus. (2015). *Pengaruh leverage, pertumbuhan penjualan dan ukuran perusahaan terhadap profitabilitas*. Udayana University.
- Putri, Michelle Claudia, & Sugia, Elizabeth. (2020). Faktor-Faktor Yang Mempengaruhi Kinerja Keuangan Pada Perusahaan Manufaktur. *Jurnal Paradigma Akuntansi*, 2(1), 469–477.
- Ramli, Dian, & Yusnaini, Yusnaini. (2022). Pengaruh Sales Growth, Debt To Equity Ratio, Total Assets Turnover Terhadap Return On Assets Pada Perusahaan Property Dan Real Estate Yang Terdaftar Di Bursa Efek Indonesia 2018-2020. *Owner: Riset Dan Jurnal Akuntansi*, 6(1), 722–734.
- Simatupang, Jumeida, & Sari, Eka Purnama. (2021). Effect of Working Capital, Asset Turnover and Sales Growth Limited Return on Assets on Food and Beverage Industry. *International Journal of Business Economics (IJBE)*, 2(2), 143–154.
- Statistik, Badan Pusat. (2022). *Statistik Indonesia 2021*. Badan Pusat Statistik.
- Suriadi, Laurensky. (2013). Pengaruh Sales Growth, Debt to Equity Ratio, dan Deviden Payout Ratio Terhadap Return on Asset. *Jurnal Bisnis Dan Akuntansi*. Jakarta: Universitas Esa Unggul.
- Sutia, Sabar. (2022). Effect of Capital Structure and Sales Growth on Profitability (Empirical Study on Sub-Manufacturing Companies) Food and Beverage Sector Listed on Stock Exchange Indonesia Period 2016-2020. *Journal of Business, Management, & Accounting*, 4(2), 18–29.
- Tanjung, Gusni. (2014). *ANALISIS FAKTOR-FAKTOR YANG MEMPENGARUHI PERTUMBUHAN MODAL SENDIRI PADA INDUSTRI PROPERTI, REAL ESTATE DAN KONSTRUKSI BANGUNAN*.
- TEBIONO, JUAN NATHANAEL, & SUKADANA, I. D. A. BAGUS NYOMAN. (2020). FAKTOR-FAKTOR YANG MEMPENGARUHI TAX AVOIDANCE PADA PERUSAHAAN MANUFaktur YANG TERDAFTAR DI BEI. *Jurnal Bisnis Dan Akuntansi*, 21(1a-2 SE-Articles). <https://doi.org/10.34208/jba.v21i1a-2.749>