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The Effect of DER, Current Ratio, and TATO on Return on Assets in Technology Sector Companies Listed on IDX

Devita Septiani¹ dan Esi Fitriani Komara^{1*}

¹ Department of Management, Faculty of Economics and Business, Universitas Jenderal Achmad Yani, Cimahi, Indonesia

* Corresponding author: Esi Fitriani Komara (esifitriani@mn.unjani.ac.id)

Abstract

The company's financial performance is a very important aspect because it reflects the company's ability to manage its resources effectively and efficiently, one of the indicators is the level of profitability proxied by return on assets. This study aims to analyze the effect of financial ratios such as the debt-to-equity ratio, current ratio, and total asset turnover on the company's return on assets, both partially and simultaneously. This study uses a quantitative approach with panel data involving 17 technology sector companies listed on the IDX, using purposive sampling techniques and classical assumption tests, panel data regression tests, hypothesis tests, and coefficients of determination using EViews 13. The results of this study indicate that the debt-to-equity ratio and current ratio do not have a significant effect on return on assets, whereas total asset turnover does have an effect on return on assets. Simultaneously, these variables have a significant effect on return on assets because many factors influence return on assets-not just the debt-to-equity ratio and the current ratio alone. The findings imply that profitability in technology companies is influenced more by strategic and innovation-related factors than by conventional financial ratios such as leverage, liquidity, and asset utilization efficiency.

Keywords

Current Ratio, Debt-to-Equity Ratio, Return on Assets, Total Asset Turnover.

1. Introduction

Indonesia continues to experience economic growth, reflected in the expansion of production and service activities across various sectors. This development has intensified business competition, encouraging companies to improve their financial performance to remain competitive and ensure long-term sustainability. Financial performance reflects a company's ability to manage operations efficiently and generate profits that support operations, business expansion, and resilience during periods of economic uncertainty (Azizah & Cahyaningtyas, 2023; Suherlan, 2024). Companies that consistently generate profits are better positioned to finance growth and mitigate risks, whereas low profitability increases reliance on external financing. This challenge has become more pronounced as corporate asset structures increasingly shift toward intangible assets, particularly in technology-oriented industries.

Among the sectors contributing to economic growth, the technology sector has emerged as a key driver of productivity and innovation. Globally, intangible assets account for approximately 90% of corporate assets, while tangible assets represent only 10%, with software and technology-related assets dominating market capitalization. In Indonesia, the rapid expansion of the technology sector has accelerated economic development, enhanced productivity, and facilitated innovations that were previously difficult to achieve (Sari et al., 2026). This trend is reflected in the increase in the ICT Development Index from 5.07 in 2018 to 5.90 in 2023, demonstrating substantial technological progress. Given these developments, evaluating the financial performance of technology companies has become increasingly important. Therefore, this study employs Return on Assets (ROA) as a measure of a company's ability to generate profits from its assets (Sutrisno, 2017).

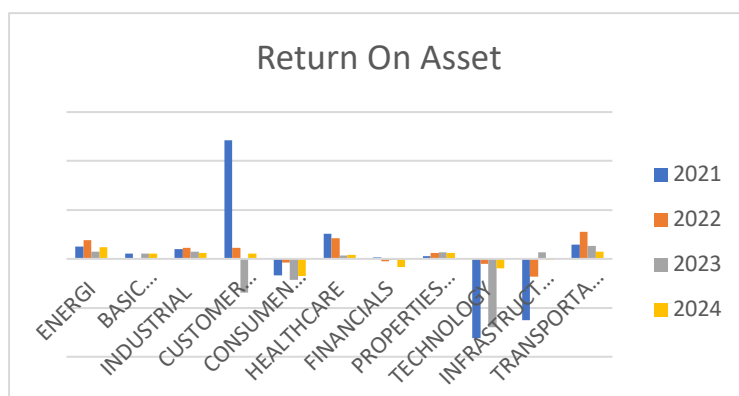


Figure 1. Return on Assets Level for All Sectors

Based on the graph in Figure 1, the technology sector's profitability declined significantly in 2021 and 2023 due to rising interest rates. In 2025, interest rates increased by 9.25% (Bank Indonesia, 2025). Most technology companies are still in the growth phase and are implementing efficient strategies to achieve net profit. Therefore, a company's financial performance is crucial for reflecting its financial condition over a specific period, in terms of both funding and disbursement. This financial performance is generally measured through various financial ratios, including solvency, liquidity, and activity ratios.

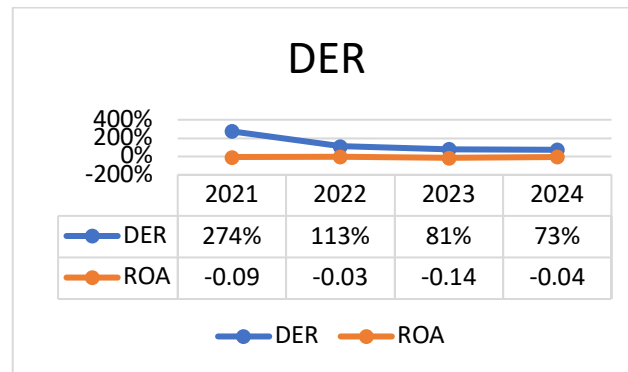


Figure 2. Comparison of DER and ROA

The solvency ratio assesses a company's ability to manage funding sources and meet its long-term obligations. In this study, the Debt-to-Equity Ratio (DER) is used as a proxy. DER is used to show the comparison between the amount of debt and the amount of equity, so that it can illustrate the extent to which company funds are financed by creditors compared to company owner funds. Based on Figure 2, in the technology sector, the company debt-to-equity ratio decreased to 81%, and the return on assets decreased to -0.14. A high debt-to-equity ratio can reduce return on assets because it can lead to inefficient capital use and a higher risk of default (Ferli et al., 2021).

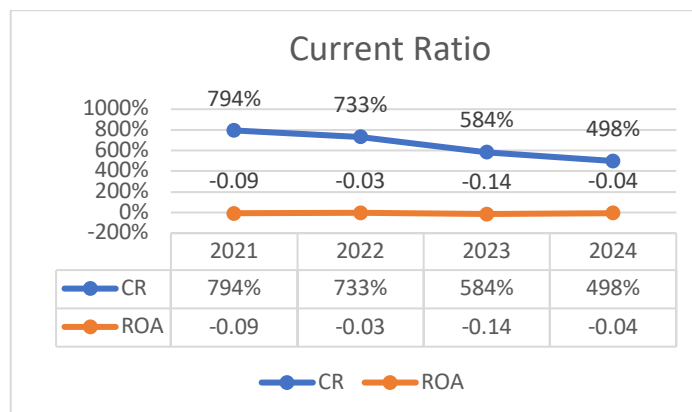


Figure 3. Comparison between Current Ratio and ROA

Financial performance can also be evaluated through a company's liquidity, which reflects its ability to meet short-term obligations. Liquidity is commonly measured using the current ratio, which assesses the extent to which current assets can cover current liabilities when they become due (Sudana, 2019). Based on IDX statistics in Figure 3, technology sector companies recorded a current ratio of 794% in 2021 with a ROA of -0.09. In 2022, the current ratio declined to 733% while ROA improved to -0.03, and in 2024 the current ratio further decreased to 584% with ROA at -0.14. These trends are inconsistent with the argument of Blessing and Sakouvogui (2023) that higher liquidity should enhance a company's ability to meet short-term obligations and support performance.

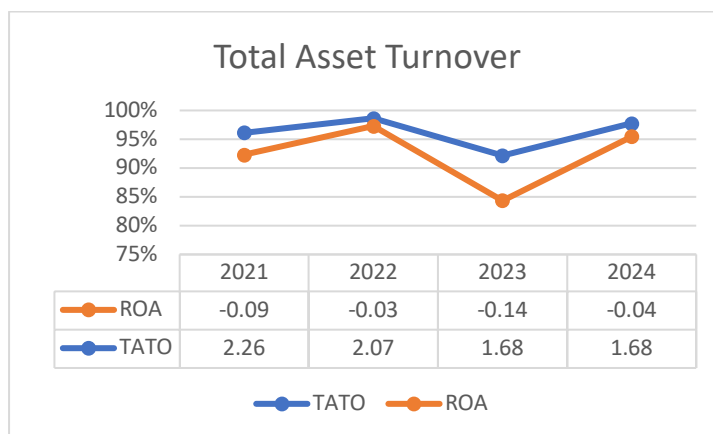


Figure 4. Comparison between TATO and ROA

In addition to liquidity, financial performance can be assessed through activity ratios, which measure how efficiently a company utilizes its assets to support operations. This study uses Total Asset Turnover (TATO) as a proxy, as it reflects the effectiveness of a company in using its total assets to generate sales (Sudana, 2019). According to IDX statistics in Figure 4, technology companies recorded a TATO of 2.06 in 2021 with an ROA of -0.09. In 2022, TATO decreased to 2.07 while ROA improved to -0.03. By 2024, TATO fell further to 1.68, while ROA remained relatively better at -0.04. This pattern contradicts the view of Miswanto and Oematan (2020), who argued that higher asset turnover indicates more effective asset utilization and should contribute to improved company performance.

This discrepancy between empirical findings and financial theory indicates an interesting research gap, particularly regarding the decline in ROA amid the rapid development of the technology sector. The novelty of this research lies in its distinct research subjects and time periods. The technology sector faces more complex levels of risk, funding needs, and asset utilization, characterized by economic uncertainty and high interest rates. Therefore, this research aims to examine the effect of debt-to-equity ratio, current ratio, and total asset turnover on return on assets in technology sector companies listed on IDX for 2021-2024.

2. Literature Review and Hypothesis Development

2.1. The Effect of Debt-to-Equity Ratio on Return on Assets

The debt-to-equity ratio is a ratio used to show the comparison between the amount of long-term debt and the amount of equity owned by a company, which is useful for determining the amount of funds provided by creditors compared to funds originating from company owners (Widiono & Yuniarwati, 2025; Sumarni, 2025; Masrifat & Lestari, 2025). The higher the debt-to-equity ratio, the smaller the company's equity is compared to its (Dewi & Sembiring, 2022). According to signaling theory, a high debt-to-equity ratio indicates that a company uses debt in its operations. The use of high debt can be interpreted as a negative signal, marked by a decrease in investor confidence, because the company must bear high interest burdens, so that the company's performance deteriorates because debt is higher than equity. This is because a higher debt-to-equity ratio indicates that the company has a higher level of debt and, consequently, faces greater business risks should economic conditions deteriorate (Manda & Sembiring, 2022).

Research by Sunaryo and Lestari (2021) found that the debt-to-equity ratio has a negative and significant effect on return on assets, indicating that a company's capital structure influences its ability to generate profits. The study suggests that debt financing can improve profitability when the cost of debt is lower than the cost of

equity, making debt a more efficient source of funding. However, excessive reliance on debt may increase financial burdens, particularly through higher interest expenses, which can reduce the company's profits (Mahdiana & Amin, 2020). Moreover, a higher DER reflects a greater proportion of debt relative to equity, potentially increasing financial risk and adversely affecting profitability (Dewi & Sembiring, 2022).

H1: Debt-to-equity ratio has a negative effect on return on assets.

2.2. The Effect of Current Ratio on Return on Assets

The Current Ratio (CR) is one of the most widely used liquidity indicators for evaluating a company's ability to meet its short-term obligations with current assets (Hasidi et al., 2024; Heni & Utami, 2025). A higher current ratio reflects a stronger liquidity position, indicating that a company possesses sufficient current assets to cover its current liabilities when they become due. Adequate liquidity enables firms to maintain smooth business operations, avoid financial distress, and reduce the likelihood of payment delays to creditors and suppliers. As a result, companies with strong liquidity are generally perceived as more financially stable and better able to manage their working capital efficiently (Alsulami, 2025). Furthermore, a high current ratio gives firms flexibility to support operations and pursue investment opportunities that may improve financial performance (Wu et al., 2025).

Based on signaling theory, a company with a high CR demonstrates that it possesses sufficient current assets to meet its short-term liabilities, reflecting a healthy and stable financial condition. This serves as a positive signal to investors by indicating lower liquidity risk and stronger operational continuity. Companies with strong liquidity are generally perceived as having lower financial risk, which can enhance investor confidence and attract additional capital to support future growth. Furthermore, the availability of adequate current assets enables firms to operate without significant liquidity constraints, creating greater opportunities to improve profitability. Consequently, an increase in the current ratio is often associated with higher ROA (Tobing & Batubara, 2026). This argument is supported by Susilawati et al. (2022), who found that higher liquidity strengthens corporate credibility and encourages positive investor responses. The study indicates that a higher current ratio is associated with improved ROA.

H2: Current ratio has a positive effect on return on assets.

2.3. The Effect of Total Asset Turnover on Return on Assets

Total asset turnover is an activity ratio that measures how efficiently a company utilizes its total assets, including both current and fixed assets, to generate sales revenue (Alfisahr & Muniarty, 2023). A higher TATO indicates that a company is more effective in managing its available resources to support operational activities and increase sales performance. TATO reflects the effectiveness of a firm in using its overall assets to generate revenue and earn profits. The high number of TATOs indicates that the company is highly profitable (Fitriani & Komara, 2024). Therefore, companies with a high asset turnover ratio are generally considered better able to convert investments in assets into productive business outcomes. Efficient asset utilization not only contributes to higher sales but also enhances the company's ability to generate returns from the resources it controls.

Based on signaling theory, a high TATO indicates that a company can use both its current and fixed assets efficiently to generate sales. This efficiency reflects strong operational performance and signals to investors the company's ability to maximize asset productivity. Efficient asset utilization not only demonstrates

effective management but also increases the firm's capacity to generate higher revenues from its existing asset base. Consequently, higher total asset turnover is expected to improve ROA by increasing profitability from total assets (Harahap et al., 2025). Supporting this argument, Sumantri and Sukartaatmadja (2022) stated that higher asset turnover leads to greater profitability because increased sales contribute directly to higher profits, assuming other factors remain constant. Therefore, this study proposes that total asset turnover has a positive and significant effect on return on assets.

H3: Total asset turnover has a positive effect on return on assets.

2.4. The Simultaneous Effect on Return on Assets

Return on assets reflects a company's ability to generate profits from its total assets and is often used as an indicator of operational and financial performance. The achievement of ROA is influenced by various internal factors, including capital structure, liquidity, and asset utilization efficiency. The debt-to-equity ratio represents the proportion of debt financing relative to equity and may affect profitability through financing costs and financial risk (Dewi & Sembiring, 2022). Meanwhile, the current ratio measures a firm's ability to meet short-term obligations and reflects its liquidity position. Sartono (2014) stated that total asset turnover, on the other hand, indicates how effectively a company utilizes its assets to generate sales and profits.

According to signaling theory, the combined performance of these financial ratios provides important information regarding a company's financial health and operational capability. A balanced capital structure, adequate liquidity, and efficient asset utilization can signal lower financial risk and stronger profitability prospects to investors (Dewi & Sembiring, 2022; Harahap et al., 2025). Furthermore, firms that manage debt effectively, maintain sufficient liquidity, and maximize asset productivity are more likely to achieve higher profitability and sustainable growth. Therefore, DER, CR, and TATO are expected to jointly influence ROA, as these variables collectively reflect the effectiveness of financial and operational management in generating corporate profits.

H4: Debt-to-equity ratio, current ratio, and total asset turnover have a simultaneous effect on return on assets.

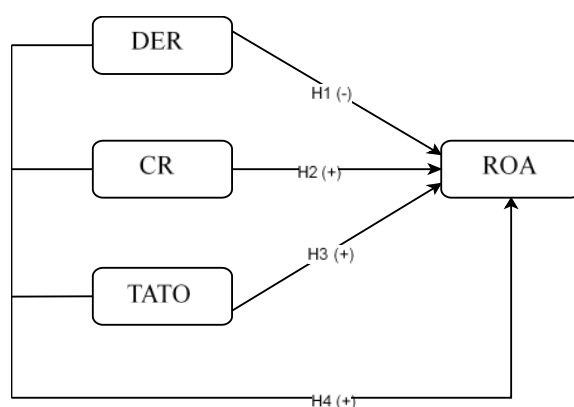


Figure 5. Conceptual Framework

Figure 5 illustrates the relationships between the independent variables, namely DER, CR, and TATO, and ROA as the dependent variable. DER is hypothesized to have a negative effect on ROA, as higher debt levels may increase financial costs and reduce profitability. In contrast, CR and TATO are hypothesized to have positive effects on ROA, reflecting the roles of liquidity and asset utilization in supporting firm profitability. Furthermore, DER, CR, and TATO are expected to influence ROA collectively, as represented by the simultaneous relationship in the framework.

3. Methods

This study employed a quantitative approach with a descriptive and associative research design to examine the relationships between the variables. The population consisted of all technology sector companies listed on the Indonesia Stock Exchange (IDX) during 2021–2024. The sample was selected using non-probability sampling, specifically purposive sampling, to obtain samples that meet predetermined criteria. Based on these criteria, the study included 17 technology sector companies were included in the study, resulting in a total of 68 observations over the four-year period.

This study utilized secondary data obtained from sources that had previously collected, processed, or published the information (Farah et al. 2023). The data were panel data, combining time-series and cross-sectional data and allowing observations across multiple companies over a specific period. The study employed three independent variables, namely Debt to Equity Ratio (DER), Current Ratio (CR), and Total Asset Turnover (TATO), while Return on Assets (ROA) was used as the dependent variable to measure company profitability.

The research instrument in this study consisted of descriptive statistical analysis and several classical assumption tests, including the normality test, heteroscedasticity test, multicollinearity test, and autocorrelation test, to ensure that the data met the requirements for regression analysis. The main analytical technique was panel data regression, used to examine the effect of the independent variables on the dependent variable. Three panel data estimation approaches were considered, namely the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). To determine the most appropriate model, the Chow test, Hausman test, and Lagrange Multiplier test were conducted. Furthermore, hypothesis testing used the t-test to assess partial effects, the F-test to evaluate simultaneous effects, and the coefficient of determination (R^2) to measure the model's explanatory power. All statistical analyses were conducted using EViews version 13 to ensure accurate and reliable data processing.

4. Results

This study was conducted to determine whether the debt-to-equity ratio, current ratio, and total asset turnover significantly influence return on assets in all 17 companies listed on the Indonesia Stock Exchange in the 2021–2024 period.

Table 1. Descriptive Statistics

Statistics	DER	CR	TATO	ROA
Mean	1.754589	6.897635	0.058824	-0.111507
Median	0.280735	3.396555	0.250000	0.012985
Maximum	54.97596	43.03273	2.450000	0.536586
Minimum	-4.091566	0.209763	-5.500000	-3.763883
Std. Dev.	7.429160	9.225157	1.483504	0.565821
Observations	68	68	68	68

Based on the results presented in Table 1, the DER has a minimum value of -4.091566 or -409.16%, recorded by PT Envy Technologies Indonesia Tbk in 2022, and a maximum value of 54.975960 or 5,497.60%, recorded by PT Anabatic Technologies Tbk in 2021. The mean value is 1.754589, while the median is 0.280735. The standard deviation is 7.429160, indicating substantial variation in DER across the observed companies. CR has a minimum value of 0.209763, recorded by PT Envy Technologies Indonesia Tbk in 2024, and a maximum value of 43.032730, recorded by PT Global Sukses Solusi Tbk in 2021. The mean value is 6.897635, while the median is 3.396555. The standard deviation of 9.225157 indicates considerable variation in the liquidity conditions of the observed companies.

TATO has a minimum value of -5.500000, recorded by PT Envy Technologies Indonesia Tbk in 2021, and a maximum value of 2.450000, recorded by PT Hensel Davest Indonesia Tbk in 2022. The mean value is 0.058824, with a median of 0.250000 and a standard deviation of 1.483504. The wide range indicates substantial variation in asset utilization among the observed companies. The ROA has a minimum value of -3.763883, recorded by PT Envy Technologies Indonesia Tbk in 2021, and a maximum value of 0.536586, recorded by PT Distribusi Voucher Nusantara Tbk in 2021. The mean value is -0.111507, while the median is 0.012985. The standard deviation is 0.565821, indicating considerable variation in profitability across the observed companies. The negative mean suggests that, on average, the observed companies generated negative returns on their assets during the observation period.

Table 2. Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	4.536382	(16,48)	0.0000
Cross-section Chi-square	62.636832	16	0.0000

Table 2 presents the results of the Chow test used to determine the most appropriate panel data regression model between the CEM and the FEM. The test results show that the probability value of the Cross-section Chi-square statistic is 0.0000, which is lower than the significance level of 0.05 ($0.0000 < 0.05$). Therefore, the null hypothesis is rejected, indicating that the FEM is more suitable than the Common Effect Model for analyzing the panel data in this study.

Table 3. Hausman Test and LM Test

Test	Statistics	Result
Hausman Test	Cross-section random	Chi-Sq. Statistic= 2.453271
		Chi-Sq. d.f. = 3
		Prob = 0.4838
Lagrange Multiplier	Breusch-Pagan	Cross-section= 18.63478 Prob: 0.0000

Table 3 shows that the p-value results from the Hausman test; the probability value (random cross-section) is 0.4838, which is greater than the significance value of 0.05, or $0.4838 > 0.05$. This means that the Hausman test selected a random effect, so the next test, the Lagrange multiplier test, must be carried out. The Lagrange multiplier test has been conducted, and it can be seen that the Breusch-Pagan value (cross-section) is 0.0000, and the result of this value is smaller than the significance value of 0.05, or $0.0000 < 0.05$. This means that, based on the results of the test, the selected model is a REM.

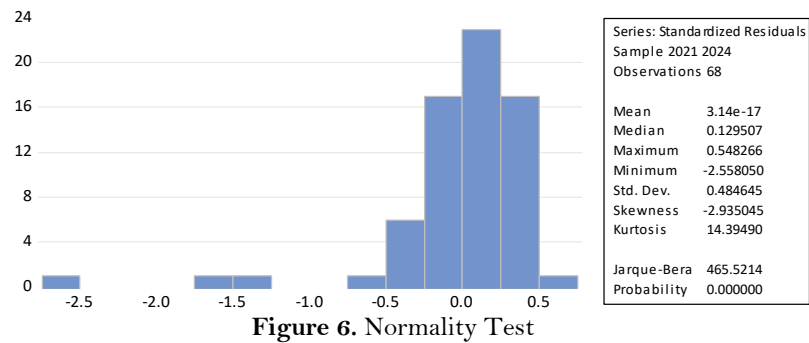


Figure 6 shows that the probability value is 0.000000, which is less than 0.05 ($0.000000 < 0.05$); therefore, it can be concluded that the data are not normally distributed. However, according to the central limit theorem, if $N > 30$, the data can be assumed to satisfy the assumption of a normal distribution (Savitri et al., 2021).

Table 4. Multicollinearity Test and Heteroscedasticity Test

Variable	Multicollinearity Test		Heteroscedasticity Test	
	Coefficient	Uncentered	Coefficient	Prob.
	Variance	VIF		
Constant	0.002828	1.346354	2.602085	0.0115
DER	2.07E-05	1.037104	-0.477827	0.6344
CR	1.31E-05	1.311494	-0.132981	0.8946
TATO	0.000644	1.009540	0.110221	0.9126

Based on Table 4, the multicollinearity test for the variables above shows an uncentered VIF value < 10 , indicating that each variable in this study does not exhibit multicollinearity. Furthermore, the heteroscedasticity test indicates that each variable has a p-value greater than 0.05. This indicates that all variables are free from heteroscedasticity symptoms.

Table 5. Coefficient Determination

Statistics	Value
R-Square	0.206258
Adjusted R-Square	0.169052
S.E. of Regression	0.354648
F-Statistics	5.543585
Mean Dependent Var.	-0.049662
S.D Dependent Var	0.389055
Sum Squared Residuals	8.049622
Durbin-Watson	1.924970
R-Square	0.206258

Table 5 indicates that the Durbin–Watson (DW) statistic can be interpreted using the following criteria: a positive autocorrelation exists if the DW value is less than -2 , no autocorrelation exists if the DW value falls between -2 and $+2$, and a negative autocorrelation exists if the DW value is greater than $+2$ (Sunyoto, 2017). Based on the results presented in the table, the Durbin–Watson statistic is 1.924970, which lies within the range of -2 to $+2$. Therefore, it can be concluded that there is no autocorrelation in the regression model.

Based on the results in Table 5, the coefficient of determination in this study can be seen from the adjusted R-squared value of 0.206258, or 20.6%, where the dependent variable, namely return on assets, can be explained by the independent variables debt-to-asset ratio, current ratio, and total asset turnover, while the rest is explained in other variables besides those explained in this study.

Table 6. Panel Data Regression Test (Random Effect Model)

Variable	Coefficient	Std. Error	t-statistics	Prob
Constant	-0.159438	0.108448	-1.470179	0.1464
DER	-0.003538	0.008289	-0.426770	0.6710
CR	0.006230	0.006546	0.951710	0.3448
TATO	0.189800	0.047836	3.967702	0.0002
Effects Specification			S.D.	Rho
Cross-section random			0.358014	0.5026
Idiosyncratic random			0.356173	0.4974

Based on the panel data regression results presented in Table 6, the DER and CR do not have a significant effect on ROA. This is indicated by their probability values, all of which are greater than the 5% significance level: 0.6710 for DER and 0.3448 for CR, whereas TATO has a significant effect on ROA. The DER coefficient of -0.003538 indicates that an increase in leverage tends to reduce ROA, although the effect is not statistically significant. Meanwhile, CR and TATO have positive coefficients of 0.006230 and 0.189800, respectively, indicating that higher liquidity and asset turnover tend to increase ROA. Since two variables in the study have probability values exceeding 0.05 and/or have a significant effect on ROA, TATO does affect ROA under the REM model used in this study.

5. Discussion

Based on the regression results, DER has a negative coefficient of -0.003538 with a probability value of 0.6710, indicating that DER has no significant effect on return on assets. Therefore, Hypothesis 1, which proposed that DER has a negative and significant effect on ROA, is not supported. This finding suggests that both high and low levels of debt utilization do not significantly influence the profitability of technology sector companies. Although a higher DER theoretically reflects greater reliance on debt financing, which may improve profitability by providing additional capital for business operations, it also exposes firms to higher financial risk and interest expenses that may offset its potential benefits (Siswanto et al., 2022). As a result, variations in debt levels do not necessarily lead to changes in ROA. These findings are consistent with the studies of Nadia and Apriadi (2025), who found that DER has no significant partial effect on ROA, as well as Damayanti et al. (2025), who likewise concluded that the DER ratio does not significantly affect ROA.

The results of this study indicate that the CR does not have a significant effect on ROA, as evidenced by a probability value of 0.3448, which exceeds the 5% significance level. Thus, Hypothesis 2 is rejected. Although the coefficient is positive, suggesting that higher liquidity tends to increase profitability, the effect is not statistically significant. This finding implies that a high level of liquidity does not necessarily lead to higher profits because a substantial portion of current assets may remain idle and not be utilized efficiently in productive activities. According to signaling theory, a high current ratio reflects a company's ability to meet short-term obligations and signals financial stability to investors (Tobing & Batubara, 2026). However, excessive liquidity may also indicate that resources are being held in cash or other low-yield current assets rather than being invested in growth-generating activities. In technology companies, profitability often depends on innovation, digital capabilities, and market expansion rather than liquidity alone. These findings are consistent with Gamara et al. (2022) and Setiawaningrum et al. (2025), both of whom reported that the current ratio does not have a significant effect on return on assets.

The findings also show that TATO significantly affects return on assets, as indicated by a probability value of 0.0002. Therefore, hypothesis 3 is supported, with a positive coefficient, indicating that more efficient asset utilization tends to increase profitability; this relationship is statistically significant. These results suggest that

effective asset utilization automatically leads to higher profits for companies in the technology sector. According to signaling theory, a high TATO reflects management's ability to use assets efficiently and generate sales, thereby providing a positive signal about operational performance (Harahap et al., 2025). Furthermore, TATO measures the effectiveness of a company in converting its assets into revenue and profit (Sartono, 2014). Many technology companies allocate significant resources to software development, digital infrastructure, and research activities to increase revenue. Azzahra and Pangaribuan (2025) support these findings, explaining that the higher the TATO, the more effectively a company uses its assets to generate sales. This is also consistent with Ramadhan and Nugroho (2025), who argue that companies need to improve the effectiveness of their asset turnover to achieve maximum profits.

The simultaneous test results indicate that DER, CR, and TATO together significantly affect return on assets. Hypothesis 4 is accepted. These variables represent important dimensions of financial performance—namely, capital structure, liquidity, and asset utilization efficiency—and their combined effect is sufficient to explain profitability in technology companies during the study period. Based on signaling theory, these financial ratios provide information regarding a company's financial condition, risk exposure, and operational effectiveness (Dewi & Sembiring, 2022; Harahap et al., 2025). However, the technology sector is characterized by rapid innovation, intensive investment in intangible assets, and dynamic market competition, so profitability depends on factors beyond traditional financial ratios.

6. Conclusion

This study examined the effect of the debt-to-equity ratio, current ratio, and total asset turnover on return on assets in technology sector companies listed on the Indonesia Stock Exchange during 2021–2024. The results of the panel data regression analysis show that the debt-to-equity ratio and current ratio, individually, do not have a significant effect on ROA, whereas TATO has a significant effect on ROA. These findings suggest that leverage and asset liquidity are not the primary determinants of profitability. Furthermore, simultaneous testing reveals that the debt-to-equity ratio, current ratio, and total asset turnover collectively have a significant effect on ROA, indicating that profitability in technology companies may be driven by factors beyond traditional financial ratios.

The findings have practical implications for managers and investors in the technology sector. Company management should rely on debt management, liquidity management, or improving asset turnover to boost profitability. Greater attention can also be given to strategic factors such as innovation, digital transformation, research and development activities, market expansion, and operational competitiveness.

This study has several limitations. First, it focuses only on technology sector companies listed on the IDX and uses a relatively short observation period of four years. Second, the model includes only three independent variables, which may not fully explain variations in profitability. Therefore, future research is recommended to extend the observation period, increase the sample size, and incorporate additional variables such as firm size, sales growth, research and development expenditure, corporate governance, and innovation intensity to obtain a more comprehensive understanding of the determinants of profitability in technology companies.

References

Alfisahr, S. N., & Muniarty, P. (2023). Pengaruh working capital to total assets dan total asset turnover terhadap laba bersih pada PT Akasha Wira Internasional Tbk. *Jurnal*

- Ilmiah Akuntansi Kesatuan*, 11(2), 291–302. <https://doi.org/10.37641/jiakes.v11i2.1748>.
- Alsulami, F. (2025). Evaluating financial performance of airline companies through liquidity and debt ratios: An accounting approach. *Risks*, 13(4), 63–75. <https://doi.org/10.3390/risks13040063>.
- Azizah, N., & Cahyaningtyas, F. (2023). Pengaruh CSR, kinerja lingkungan, dan biaya lingkungan terhadap profitabilitas: Studi empiris perusahaan industri dasar dan bahan kimia. *Jurnal Ilmiah Bisnis dan Ekonomi Asia*, 17(2), 212–225. <https://doi.org/10.32812/jibeka.v17i2.1557>.
- Azzahra, S., & Pangaribuan, H. (2025). Pengaruh CR, DER, dan TATO terhadap ROA pada PT Nippon Indosari Corpindo Tbk periode 2014–2023. *Jurnal Operasional Manajemen*, 2(3), 694–705. <https://doi.org/10.58174/jrm.VOLUME:2.No:3.2025.279.HAL:694-705>.
- Bank Indonesia. (2025). *SBDK Maret 2025 meningkat, akibat kenaikan biaya dana dan biaya overhead*. Retrieved January 20, 2026, from https://www.bi.go.id/id/publikasi/ruang-media/news-release/Documents/sp_2711125-Lampiran-1-Asesmen-Transmisi-SBDK-RDG-Mei-2025.pdf.
- Blessing, H., & Sakouvgui, G. (2023). Impact of liquidity and solvency ratios on financial performance: A comprehensive analysis. *Indonesia Auditing Research Journal*, 12(3), 102–115. <https://doi.org/10.35335/arj.v12i3.208>.
- Damayanti, C. D., Hariyanto, E., Fitriati, A., & Setyadi, E. J. (2025). Pengaruh debt to equity ratio, total asset turnover, firm size dan net profit margin terhadap return on assets. *AKUA: Jurnal Akuntansi dan Keuangan*, 4(4), 952–960. <https://doi.org/10.54259/akua.v4i4.5393>.
- Dewi, F. M., & Sembiring, F. M. (2022). Pengaruh debt to equity ratio, return on assets, return on equity, dan ukuran perusahaan terhadap nilai perusahaan pada sub sektor makanan dan minuman yang terdaftar di bursa efek indonesia periode 2015–2019. *Portofolio: Jurnal Ekonomi, Bisnis, Manajemen, dan Akuntansi*, 19(1), 1–19.
- Farah, L. M., Suryaputri, R. V., & P. T. K. (2023). *Metode penelitian kuantitatif manajemen, keuangan, dan akuntansi*. Jakarta Selatan: Penerbit Salemba Empat.
- Ferli, O., Shafira, D. E., & William, Y. (2021). Pengaruh CR, DER, dan ROE terhadap harga saham pada perusahaan consumer goods periode 2018–2021. *Jurnal Keuangan dan Perbankan*, 19(1), 27–36. <https://doi.org/10.35384/jkp.v19i1.339>.
- Fitriani, S. F., & Komara, E. F. (2024). Pengaruh total asset turnover, current ratio, ukuran perusahaan terhadap nilai perusahaan melalui profitabilitas sebagai intervening. *Akuisisi: Jurnal Akuntansi*, 20(2), 433–445.
- Gamara, E. R., Kusumawardani, M. R., & Rahmawati, Z. (2022). Pengaruh current ratio (CR), debt to equity ratio (DER), dan total asset turnover (TATO) terhadap return on asset (ROA) perusahaan rokok yang terdaftar di Bursa Efek Indonesia tahun 2012–2021. *Jurnal Riset Akuntansi*, 1(3), 89–97. <https://doi.org/10.55606/jurnalrisetilmuakuntansi.v1i3.42>.
- Harahap, A. F., Maidalena, M., & Sugianto, S. (2025). Pengaruh current ratio (CR), debt to equity ratio (DER), dan total asset turnover (TATO) terhadap return on assets (ROA) pada PT Cisadane Sawit Raya Tbk periode 2019–2024. *Jurnal Manajemen Terapan dan Keuangan*, 14(4), 1674–1686. <https://doi.org/10.22437/jmk.v14i04.49523>.
- Hasidi, M. H., Baheri, J., & Hajar, K. I. (2024). Financial performance evaluation using profitability and liquidity ratio analysis. *Jurnal Ilmiah Manajemen Kesatuan*, 12(4), 1347–1358. <https://doi.org/10.37641/jimkes.v12i4.2742>.
- Heni, F. P., & Utami, E. S. (2025). The impact of capital structure and profitability on company value. *Research Horizon*, 5(3), 467–478. <https://doi.org/10.54518/rh.5.3.2025.597>.
- Mahdiana, M. Q., & Amin, M. N. (2020). Pengaruh profitabilitas, leverage, ukuran perusahaan, dan sales growth terhadap tax avoidance. *Jurnal Akuntansi Trisakti*, 7(1), 127–138. <http://dx.doi.org/10.25105/jat.v7i1.6289>.
- Manda, A. P. D., & Sembiring, F. M. (2022). Pengaruh current ratio, debt to equity ratio, return on equity, price earning ratio dan firm size terhadap firm value (Studi pada beberapa badan usaha milik negara di Indonesia). *Eksansi: Jurnal Ekonomi, Keuangan, Perbankan, Dan Akuntansi*, 14(1), 42–58. <https://doi.org/10.35313/eksansi.v14i1.3630>.
- Masrifa, A. Y. A., & Lestari, M. A. (2025). The effect of financial ratios on financial distress in retail sub-sector companies listed on the Indonesia Stock Exchange. *Research Horizon*, 5(4), 1669–1682.
- Miswanto, M., & Oematan, D. S. (2020). Efficiency of using asset and financial performance: The case of Indonesia manufacturing companies. *MIX: Jurnal Ilmiah Manajemen*, 10(2),

- 314-330. <https://doi.org/10.22441/mix.2020.v10i2.003>.
- Nadia, A., & Apriadi, D. (2025). Analisis pengaruh debt to equity ratio dan current ratio terhadap return on assets pada PT Bukalapak Tbk periode 2022-2024. *Jurnal Riset Manajemen dan Akuntansi (JURIMA)*, 5(2), 301-313. <https://doi.org/10.55606/jurima.v5i2.5242>.
- Ramadhan, A. F., & Nugroho, R. D. (2025). Pengaruh current ratio (cr), debt to equity ratio (der) dan total asset turn over (tato) terhadap return on asset (roa) pada perusahaan PT Erajaya Swasembada Tbk Periode 2011-2023. *Jurnal Ilmiah Manajemen dan Akuntansi*, 2(6), 83-96. <https://doi.org/10.69714/sr35xt89>.
- Sari, W., Merliana, V., & Syarif, D. (2026). Pengaruh total asset turnover, debt to equity ratio, current ratio, dan firm size terhadap return on asset. *eCo-Fin*, 8(1), 211-221. <https://doi.org/10.32877/ef.v8i1.3644>.
- Sartono, A. (2014). *Manajemen keuangan teori dan aplikasi*. Yogyakarta: BPFE.
- Savitri, C., Faddila, S. P., Iswari, H. R., Anam, C., Syah, S., Mulyani, S. R., Sihombing, P. R., Kismawadi, E. R., Pujiyanto, A., Mulyati, A., Astuti, Y., Adinugroho, W. C., Imanuddin, R., Nuraini, A., Taufik, U., & Rohana, H. (2021). *Statistik multivariat dalam riset*. Bandung: Penerbit Widina Bhakti Persada.
- Setiawaningrum, R., Jamaludin, A., & Nandang. (2025). The effect of current ratio (cr) on return on assets (roa) at PT Roda Vivatex Tbk from 2014 to 2023 pengaruh current ratio terhadap return on assets pada Pt Roda Vivatex tbk tahun 2014-2023. *COSTING: Journal of Economic, Business and Accounting*, 8(15), 773-783. <https://doi.org/10.31539/feqcra04>.
- Siswanto, D. J., Maudhiky, F., Wahyudi, I., & Syah, T. Y. R. (2022). The influence of debt to equity ratio (DER), return on assets (ROA), and company size on profit growth. *Journal of Social Science*, 3(6), 2137-2147. <https://doi.org/10.46799/jss.v3i6.486>.
- Sudana, I. M. (2019). *Manajemen keuangan teori dan praktik*. Surabaya: Airlangga University Press.
- Suherlan, A. L. M. (2024). Strategic financial management for performance enhancement and sustainable growth. *Arthatama: Journal of Business Management and Accounting*, 8(1), 18-29.
- Sumantri, G. M., & Sukartaatmadja, I. (2022). Pengaruh ROA, CR, dan TATO terhadap harga saham perusahaan farmasi yang terdaftar di BEI periode 2016-2020. *Jurnal Ilmiah Manajemen Kesatuan*, 10(1), 179-188. <https://doi.org/10.37641/jimkes.v10i1.1536>.
- Sumarni, E. (2025). *PT Harta Solvency Performance Review Jaya Tbk: Comparison debt to asset ratio, debt to equity ratio, long-term debt to equity ratio, times interest earned, and fixed charge coverage*. Retrieved January 13, 2026, from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5125170.
- Sunaryo, D., & Lestari, E. P. (2021). The effect of debt to asset ratio and debt to equity ratio against return on assets. In *BIS-HSS 2020: Proceedings of the 2nd Borobudur International Symposium on Humanities and Social Sciences*, BIS-HSS 2020(p. 150). Magelang: Universitas Muhammadiyah Magelang.
- Sunyoto, D. (2017). *Analisis validitas dan asumsi klasik*. Yogyakarta: Gava Media.
- Susilawati, D., Shavab, F. A., & Mustika, M. (2022). The effect of debt to equity ratio and current ratio on return on assets. *Journal of Applied Business, Taxation and Economics Research*, 1(4), 325-337. <https://doi.org/10.54408/jabter.v1i4.61>.
- Sutrisno. (2017). *Manajemen keuangan: Teori, konsep, dan aplikasi*. Yogyakarta: EKONISIA.
- Tobing, D. S. C. L., & Batubara, Z. K. (2026). Pengaruh CR, DER, dan TATO terhadap ROA pada perusahaan manufaktur subsektor barang konsumsi yang terdaftar di BEI. *Miftah: Jurnal Ekonomi dan Bisnis Islam*, 4(1), 93-103. <https://doi.org/10.61231/xrs8xz24>.
- Widiono, R., & Yuniarwati. (2025). The effect of managerial ownership, institutional ownership, dividend payout ratio, and debt to equity ratio on stock price. *Research Horizon*, 5(6), 2331-2344. <https://doi.org/10.54518/rh.5.6.2025.946>.
- Wu, W., Alkaraan, F., & Le, C. (2025). The moderating effects of corporate governance and investment efficiency on the nexus between financial flexibility and firm performance. *Journal of Financial Reporting and Accounting*, 23(6), 2573-2598. <https://doi.org/10.1108/JFRA-05-2023-0234>.

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The data that support the findings of this study are available from the corresponding author upon reasonable request.



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