

THE EFFECT OF INSTITUTIONAL OWNERSHIP, TRADING VOLUME ACTIVITY, TOTAL ASSET TURNOVER, AND LEVERAGE ON STOCK RETURNS WITH PROFITABILITY AS CONTROL

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Abstract

This study aims to examine the effect of Institutional Ownership, Trading Volume Activity (TVA), Total Asset Turnover (TATO), and Leverage on Stock Returns, with Profitability serving as a control variable. The research objects were companies in the industrial sector listed on the Indonesian Stock Exchange (IDX) during the six-year observation period from 2019 to 2024. The study population consisted of 22 industrial sector companies. The sample was selected using a purposive sampling method based on predetermined criteria, resulting in 132 firm-year observations. Multiple linear regression analysis was employed to examine the relationship between the independent variables and the dependent variable. Prior to hypothesis testing, descriptive statistical analysis and classical assumption tests were conducted to ensure the adequacy of the data and the regression model. The results indicate that Institutional Ownership, Trading Volume Activity, Total Asset Turnover, and Leverage simultaneously have a significant effect on Stock Returns. Partially, Institutional Ownership has a significant negative effect on Stock Returns, while Trading Volume Activity and Total Asset Turnover have significant positive effects on Stock Returns. Meanwhile, Leverage has no significant effect on Stock Returns.

Keywords: Institutional Ownership, Trading Volume Activity, Total Asset Turnover, Leverage, Stock Returns.

INTRODUCTION

Companies requiring additional capital for business development or expansion may opt for an Initial Public Offering (IPO) as an alternative to creditor loans. Through an IPO, a company can secure fresh capital from both long-term and short-term investors. However, attracting significant investment requires a company to maintain a strong reputation and transparency, thereby clearly demonstrating the potential returns on investment. The magnitude of these returns is a key factor investors consider before committing their funds. Yet, intense market competition poses a challenge for companies to consistently offer the best value to investors, whether through capital gains or dividends. If a company fails to meet investor expectations regarding returns, there is a significant risk that investors will withdraw their capital and shift their investments to companies capable of delivering better performance. Consequently, companies must be able to continuously increase or at least sustain the stock returns distributed to investors. In reality, however, stock returns often experience considerable volatility, as illustrated in the graph below, which tracks the return movements of the companies selected for this sample.

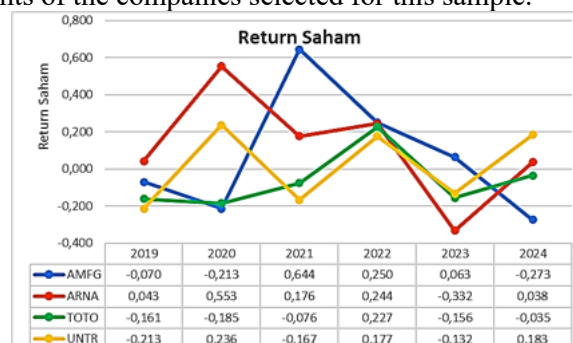


Figure 1: Stock Return Graph

Figure 1 (stock return graph) reveals that stock price movement trends varied across the companies. UNTR (United Tractors Tbk.) experienced a decline in returns, dropping from 0.236 in 2020 to -0.167 in 2021; similarly, ARNA (Arwana Citramulia Tbk.) saw its returns fall from 0.560 in 2020 to 0.276 in 2021. Conversely, TOTO (Surya Toto Indonesia Tbk.) and AMFG (Asahimas Flat Glass Tbk.) recorded increases during that period, with growth rates of 59.1% for TOTO and 402.8% for AMFG. In 2022, UNTR, ARNA, and TOTO again experienced an increase in returns, whereas AMFG recorded a decline. Subsequently, in 2023, all companies exhibited a uniform trend—experiencing declines, albeit at varying rates: UNTR -174.6%, ARNA -236.1%, TOTO -168.7%, and AMFG -74.8%. In 2024, AMFG's movement diverged from that of UNTR, ARNA, and TOTO; while the latter three companies recorded increases in returns, AMFG once again recorded a decline.

The importance of stock returns to investors prompted the author to analyze the factors driving changes in these returns. Identifying these factors would allow companies to utilize the research findings as a basis for mitigating the risk of declining stock returns. The author hypothesizes that stock returns may be influenced by institutional ownership, trading volume activity, firm value, and leverage. Companies with partial institutional ownership are subject to stricter oversight, thereby minimizing conflicts of interest that could disadvantage investors. This rigorous oversight compels company management to maximize their efforts to boost revenue, thereby enabling the company to sustainably deliver value to investors. Previous empirical studies provide evidence of a positive influence of institutional ownership on stock returns (Daryaei & Fattahi, 2022; Jasnika et al., 2023; Lumantow, 2022). However, these findings contrast with the research conducted by Trinisa & Syofyan (2024), which demonstrated that institutional ownership plays no role in fluctuations in stock returns.

Trading Volume Activity (TVA), which measures the volume of stock trading, also contributes to stimulating changes in stock returns. Companies with high TVA can send signals that either boost investment interest or present an unfavorable image to investors. If high TVA is perceived as "good news" by investors, it implies strong investor demand for the stock and a higher likelihood of achieving positive returns. Investors can capitalize on high trading volumes to secure capital gains—profits derived from the difference between buying and selling prices. Conversely, low trading volume may lead investors to believe the company cannot generate capital gains, causing them to opt against investing. On the other hand, high trading volume can also signal something negative to investors. High TVA may indicate insider trading—orchestrated by the company to attract investors—which ultimately results in negative consequences or financial losses for the investors themselves. Maysie (2021) demonstrated that TVA can negatively influence stock returns. In contrast, studies by Niawaradila et al. (2021), Sumargianto & Borolla (2021), Susanto & Kartawinata (2023), Yuana & Barata (2022), Gery (2023), Wicaksono et al. (2023), and Budhathoki et al. (2024) yielded different results, showing a positive influence of TVA on stock returns. However, these research results contradict the study conducted by Nessa & Amaroh (2023), which asserted that TVA does not correlate with changes in stock returns.

Total Asset Turnover (TATO) also plays a role in influencing stock returns. A high total asset turnover indicates that a company successfully manages its assets to generate sales. High TATO also reflects optimal asset utilization, signaling healthy corporate operations. Investors view this condition as an indicator of potential profit growth; consequently, companies with high TATO values generally attract greater investor interest, boost demand for their shares, and enhance stock return performance. This aligns with the findings of previous empirical studies—such as those by Nikmah et al. (2021), Fauzan & Yogi (2021), and Prastyaniti & Bangun (2024)—demonstrating a positive impact of TATO on stock returns, though it contrasts with the findings of Ramdiani & Iradianty (2022), Marlindja & Meirisa (2022), Imara & Erdkhadifa (2023), and Hocky et al. (2023).

LITERATURE REVIEW

Agency Theory

Agency theory explains the contractual relationship between principals and agents, in which principals delegate decision-making authority to managers. Jensen and Meckling (1976) emphasize that differences in interests may generate agency costs. Institutional investors can function as external monitors because their ownership stakes provide incentives and capacity to observe managerial decisions. TVA can also reflect market monitoring because active trading accelerates the incorporation of information into stock prices. TATO reflects managerial effectiveness in using assets, while leverage may discipline managers through fixed debt obligations. Stock return becomes an outcome relevant to principals because it represents the economic benefit received from holding shares.

Signaling Theory

Signaling theory addresses information asymmetry between parties with different levels of information. Ross (1977) and Spence (1973) describe how informed parties can transmit signals to reduce uncertainty. In this study, high institutional ownership can be interpreted as market confidence in firm prospects, high TVA can signal market interest and liquidity, and high TATO can signal efficient asset use. Leverage can provide either a positive signal of management confidence or a negative signal when debt is excessive. Profitability also provides a direct signal of operating performance and is therefore treated as a control variable.

Stock Return and Research Variables

Stock return is measured as the change in share price relative to the previous period and, in this study, does not include dividends. Institutional Ownership is measured as the proportion of shares held by institutions to total shares outstanding (Kartikasari et al., 2022). TVA is the number of shares traded divided by shares outstanding (Sabila et al., 2024). TATO is net sales divided by total assets. Leverage is proxied by the Debt to Equity Ratio, calculated as total liabilities divided by total equity. Profitability is proxied by Net Profit Margin, calculated as net income divided by sales.

Hypotheses

Based on agency theory, signaling theory, and previous empirical findings, the study tests five hypotheses: H1, Institutional Ownership, TVA, TATO, and Leverage simultaneously affect Stock Returns with Profitability as a control variable; H2, Institutional Ownership has a positive effect on Stock Returns; H3, TVA has a positive effect on Stock Returns; H4, TATO has a positive effect on Stock Returns; and H5, Leverage has a negative effect on Stock Returns. All partial hypotheses are tested while controlling for Profitability.

METHOD

This research uses a causal quantitative design because it tests cause-and-effect relationships among variables. The unit of analysis is industrial sector companies listed on the Indonesia Stock Exchange. The population consisted of 22 companies that had completed an initial public offering before 2019 and consistently published financial statements during 2019-2024. Based on the stated purposive sampling criteria, the study used all 22 eligible companies, producing 132 firm-year observations over six years.

The dependent variable is Stock Return (Y). The independent variables are Institutional Ownership (X1), Trading Volume Activity (X2), Total Asset Turnover (X3), and Leverage (X4). Profitability, proxied by Net Profit Margin, is included as the control variable (Z). The operational measurements are: Institutional Ownership = institutional shares / total shares outstanding; TVA = shares traded / shares outstanding; TATO = net sales / total assets; DER = total liabilities / total equity; Stock Return = $(P_t - P_{t-1}) / P_{t-1}$; and NPM = net income / sales.

Data analysis begins with descriptive statistics using minimum, maximum, mean, and standard deviation. Classical assumption tests are then applied to assess normality, multicollinearity, autocorrelation, and heteroskedasticity. Multiple linear regression is used to test the hypotheses. Simultaneous effects are evaluated through the F-test, while partial effects are evaluated through the t-test at a 5 percent significance level. The model is specified as $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5Z + e$.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 1. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Dev.
Institutional Ownership (KI)	132	0.014	0.998	0.735	0.292
Trading Volume Activity (TVA)	132	0.0001	3.058	0.066	0.317
Total Asset Turnover (TATO)	132	0.063	3.268	0.937	0.644
Debt to Equity Ratio (DER)	132	-21.590	41.480	0.948	4.783
Net Profit Margin (Control)	132	-1.500	1.632	-0.002	0.263
Stock Return (Y)	132	-2.984	4.933	0.017	0.812

The descriptive results show substantial variation across the 132 observations. Institutional Ownership ranges from 1.4 percent to 99.8 percent, with an average of 73.5 percent. TVA has a mean of 0.066 and a maximum of 3.058, indicating that a small number of firm-year observations experienced trading activity far above the sample average. TATO has a mean of 0.937, while DER varies from -21.590 to 41.480. The wide DER range reflects observations with negative equity and highly debt-dominated capital structures. NPM averages -0.002, indicating that profitability is weak on average across the observed firm-years. Stock Return ranges from -2.984 to 4.933 with a mean of 0.017.

Classical Assumption Tests and Regression Model

The classical assumption tests indicate that the regression requirements were satisfied. The One-Sample Kolmogorov-Smirnov normality test produced a significance value of 0.098, which is above 0.05. The Durbin-Watson statistic was 2.142 and met the stated criterion of $1.7437 < 2.142 < 2.2563$. Tolerance values exceeded 0.10 and Variance Inflation Factor values were below 10, indicating no multicollinearity. The scatterplot assessment also indicated no heteroskedasticity pattern.

Table 2. Multiple Regression and Hypothesis Testing

Predictor	B	Std. Error	Beta	t	Sig.	Conclusion
Constant	0.483	0.054		8.954	0.000	-
Institutional Ownership	-0.571	0.070	-0.434	-8.136	0.000	Significant negative
TVA	0.113	0.018	0.306	6.232	0.000	Significant positive
TATO	0.309	0.034	0.500	9.075	0.000	Significant positive
DER	0.025	0.020	0.063	1.227	0.222	Not significant
NPM (Control)	0.673	0.082	0.445	8.219	0.000	Significant positive

The estimated equation is $\text{Stock Return} = 0.483 - 0.571 \text{ Institutional Ownership} + 0.113 \text{ TVA} + 0.309 \text{ TATO} + 0.025 \text{ DER} + 0.673 \text{ NPM}$. The simultaneous F-test produced $F = 58.967$ with a significance value of 0.000, indicating that the explanatory variables and the control variable jointly explain variation in Stock Returns. The model produced $R = 0.837$, $R \text{ Square} = 0.701$, and $\text{Adjusted } R \text{ Square} = 0.689$. Thus, 70.1 percent of the variation in Stock Returns is explained by the variables in the model, while 29.9 percent is associated with variables outside the model.

Institutional Ownership and Stock Returns

Institutional Ownership has a significant negative coefficient of -0.571 with $p = 0.000$. H2 is therefore rejected because the direction differs from the proposed positive effect. The finding indicates that higher institutional ownership in the observed industrial companies is associated with lower stock returns after controlling for profitability. One interpretation consistent with the thesis discussion is that institutional investors may have longer investment horizons and more conservative strategies, so a high institutional ownership concentration does not necessarily generate short-term price appreciation. A dominant institutional presence may also reduce the attractiveness of shares to other investors when the market perceives control to be concentrated. This result differs from Daryaei and Fattahi (2022), Jasnika et al. (2023), and Lumantow (2022), who report positive effects.

Trading Volume Activity and Stock Returns

TVA has a significant positive coefficient of 0.113 with $p = 0.000$, supporting H3. Higher trading volume is associated with higher stock returns. Active trading can increase stock liquidity and reflect stronger market interest. From a signaling perspective, active trading may be interpreted as a positive market response to company prospects. From an agency perspective, active trading also strengthens market monitoring because information is incorporated into prices more quickly. The result is consistent with Niawaradila et al. (2021), Yuana and Barata (2022), Susanto and Kartawinata (2023), Wicaksono et al. (2023), and Budhathoki et al. (2024).

Total Asset Turnover and Stock Returns

TATO has a significant positive coefficient of 0.309 with $p = 0.000$, supporting H4. A higher asset turnover ratio indicates that the company uses its assets more efficiently to generate sales. Efficient asset utilization can strengthen operating performance and provide a positive signal to investors. The result also fits agency theory because effective asset management indicates that managers are using company resources in line with shareholder

interests. The finding is consistent with Nikmah et al. (2021), Fauzan and Yogi (2021), and Prastyanti and Bangun (2024).

Leverage and Stock Returns

DER has a positive coefficient of 0.025 but is not statistically significant at $p = 0.222$. H5 is therefore rejected. The finding indicates that changes in leverage do not directly explain stock return variation in the sample after controlling for profitability and the other variables. Investors may place greater emphasis on earnings performance, sales growth, liquidity, and future prospects than on debt levels alone. In signaling terms, the market does not appear to interpret leverage as a decisive signal in this sample. The finding is consistent with Wahyudi (2022), Pratiwi and Sucipto (2023), and Mas et al. (2024), who also report no significant leverage effect on stock returns.

Role of Profitability as a Control Variable

NPM has a significant positive coefficient of 0.673 with $p = 0.000$. Its inclusion as a control variable indicates that profitability contributes materially to stock return variation. Controlling profitability helps isolate the effects of Institutional Ownership, TVA, TATO, and DER. The significant TVA and TATO coefficients remain positive, Institutional Ownership remains negative, and DER remains insignificant after profitability is included in the model.

CONCLUSION

This study examines the effects of Institutional Ownership, Trading Volume Activity, Total Asset Turnover, and Leverage on Stock Returns, with Profitability as a control variable, using 132 firm-year observations from 22 industrial companies listed on the Indonesia Stock Exchange during 2019-2024. The simultaneous test shows that the variables in the model jointly have a significant effect on stock returns. Partially, Institutional Ownership has a significant negative effect, TVA has a significant positive effect, TATO has a significant positive effect, and Leverage has no significant effect. Profitability has a significant positive effect as a control variable. The model explains 70.1 percent of the variation in stock returns.

For industrial companies, the results emphasize the importance of active stock trading and efficient asset utilization. Companies should maintain transparent market communication and productive asset management to support investor confidence. The negative Institutional Ownership coefficient should be interpreted carefully because it does not imply that institutional monitoring is undesirable; rather, the observed ownership concentration did not translate into higher stock returns during the study period. Although Leverage is not statistically significant, companies should continue to manage debt prudently to avoid liquidity and default risk.

The study is limited to a causal quantitative design, six reporting years, four independent variables, one control variable, and three industrial subsectors. It does not include mediating or moderating variables. Future studies can broaden the industrial coverage, extend the observation period, and examine variables such as managerial ownership, dividend policy, firm value, liquidity, or moderating mechanisms that may strengthen or weaken the relationships identified in this model.

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