Jurnal Multidisiplin Sahombu
Volume 5, Number 04, 2025, DOI 10.58471/jms.v5i04
ESSN 2809-8587 (Online)
https://ejournal.seaninstitute.or.id/index.php/JMS/index

The Role of Price to Earning Ratio as an Intervening Variable in the Relationship Between Financial Ratios and Stock Returns of Transportation Sector Issuers on the Indonesia Stock Exchange During the 2020–2024 Period

Petronela Maria Merces da Costa Boquifai[1], Maria Yovia R Pandin[2], Amiartuti Kusmaningtyas[3]

[1]Universidade da Paz. Quintal Boot, Kuluhun Subdistrict, Dili, Timor-Leste, [2,3]Universitas 17 Agustus Surabaya, Jl. Semolowaru No. 45, Sukolilo, Surabaya 60118, Indonesia.

Article Info

Keywords:
Price to Earning Ratio, Return on Assets,
Current Ratio,
Debt to Equity Ratio, Stock Return, Transportation Sector.

ABSTRACT

This study investigates the role of the Price to Earning Ratio (PER) as a mediating variable in the relationship between financial ratios, Return on Assets (ROA), Current Ratio (CR), and Debt to Equity Ratio (DER. and stock returns of transportation companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2024. Employing a quantitative approach with Structural Equation Modeling (SEM) using SmartPLS, the analysis reveals that CR and DER significantly influence PER, while ROA does not. However, PER does not significantly affect stock returns, indicating it is not an effective mediating variable. Additionally, the direct effects of ROA, CR, and DER on stock returns are also statistically insignificant. These findings suggest that stock returns in the transportation sector are more influenced by external factors, such as macroeconomic conditions and investor sentiment, than by internal financial metrics. The study contributes to the financial literature by emphasizing the limited role of traditional financial ratios in predicting stock performance within this sector.

Corresponding Author:
Petronela M.M.da Costa Boquifai
Universidade da Paz. Quintal Boot, Kuluhun Subdistrict, Dili, Timor-Leste
petronelaboquifai9@gmail.com

INTRODUCTION

The capital market plays a crucial role in the economic system by serving as an intermediary between parties with surplus funds and those in need of financing. In Indonesia, this function is fulfilled by the Indonesia Stock Exchange (IDX), which facilitates transactions of various financial instruments, including stocks. Through the capital market, companies gain access to long-term funding sources to support business growth and expansion, while investors have the opportunity to earn returns through capital gains and dividends.

One of the sectors contributing significantly to national economic activity and listed on the IDX is the transportation sector, which includes land, sea, and air transportation, as well as logistics and distribution sub-sectors. This sector acts as a key driver of the movement of

Jurnal Multidisiplin Sahombu
Volume 5, Number 04, 2025, DOI 10.58471/jms.v5i04
ESSN 2809-8587 (Online)
https://ejournal.seaninstitute.or.id/index.php/JMS/index

goods, services, and people, thus playing an essential role in both national and international supply chains. Accordingly, the financial performance and stock prices of transportation companies serve as relevant indicators in assessing overall macroeconomic stability (Shufiaziis & Iradianty, 2023).

Between 2020 and 2024, however, the transportation sector encountered numerous challenges, primarily due to the COVID-19 pandemic. Mobility restrictions, declining economic activities, and fuel price volatility led to decreased revenues and stock values for many transportation issuers. Despite gradual recovery efforts post-pandemic, stock price volatility remains high and lacks consistent upward trends, creating uncertainty among investors.

The fluctuating stock returns observed among transportation sector issuers listed on the IDX highlight the complex dynamics and high sensitivity of stock performance to both internal and external factors. This variation is evident in the contrasting cases of companies like PT Blue Bird Tbk (BIRD), which has shown positive post-pandemic stock return recovery due to effective strategies and operational efficiency, and PT Eka Sari Lorena Transport Tbk (LRNA), which continues to struggle due to limited resources and inconsistent earnings. These differences underscore the importance of examining internal financial fundamentals in understanding stock return behavior.

In this context, further analysis is needed to explore how financial ratios such as Return on Assets (ROA), Debt to Equity Ratio (DER), and Current Ratio (CR) interact with market valuation indicators like the Price to Earning Ratio (PER) and ultimately influence stock returns. Understanding these relationships can provide valuable insights for both investors and corporate managers in shaping investment strategies and enhancing firm value in the eyes of the market.

Previous studies have investigated the impact of financial ratios on stock returns, but the findings remain inconsistent across different industries. The rapidly changing market conditions and sectoral specificities require more updated and contextualized research. Given its sensitivity to global economic shifts, the transportation sector is particularly relevant for a comprehensive empirical assessment of the relationship between financial performance and stock returns.

Therefore, this study aims to empirically examine the effect of profitability, solvency, liquidity, and valuation ratios on stock returns of transportation companies listed on the Indonesia Stock Exchange during the 2020–2024 period. The findings are expected to enrich financial literature and provide practical recommendations for investors, capital market practitioners, and corporate decision-makers in formulating sound investment and financial policies.

METHODS

This study adopts a quantitative approach with a causal-comparative method aimed at examining the influence among variables using numerical data analyzed statistically. The primary objective is to investigate whether the Price to Earning Ratio (PER) serves as a

Jurnal Multidisiplin Sahombu
Volume 5, Number 04, 2025, DOI 10.58471/jms.v5i04
ESSN 2809-8587 (Online)
https://ejournal.seaninstitute.or.id/index.php/JMS/index

mediating variable in the relationship between financial ratios and stock returns of transportation sector companies listed on the Indonesia Stock Exchange (IDX) during the 2020–2024 period.

The population in this research comprises all transportation sector companies actively listed on the IDX for five consecutive years, from 2020 to 2024. The sample was selected using purposive sampling based on the following criteria: (1) the company consistently publishes complete annual financial reports during the observation period, (2) the company provides accessible data on stock prices and net income to calculate stock returns and PER, and (3) the company was not delisted or suspended during the study period. Based on these criteria, a number of companies qualified for further analysis.

The data used are secondary data obtained from annual financial statements, stock price data from the official IDX website (www.idx.co.id), and supporting sources such as RTI Business and other financial platforms. Additionally, relevant academic literature and scientific journals were consulted to strengthen the theoretical foundation and support result interpretation.

The variables in this study include independent variables (financial ratios: Return on Assets [ROA], Debt to Equity Ratio [DER], and Current Ratio [CR]), a mediating variable (PER), and the dependent variable (stock returns). ROA indicates the company's profitability relative to total assets, DER reflects capital structure and leverage, and CR measures short-term liquidity. PER, as the mediating variable, represents market perception of share value relative to earnings per share. Stock return is calculated from the difference between the beginning and end-of-year stock price plus dividends, divided by the beginning-of-year price.

Data were collected through documentation studies of published financial reports and capital market data. The analysis was conducted using SmartPLS software, as the study involves testing both direct and indirect relationships between variables in a complex structural model.

Data analysis was carried out in two main stages: (1) measurement model testing (outer model), which includes convergent and discriminant validity as well as construct reliability using indicators such as loading factor, Average Variance Extracted (AVE), Composite Reliability, and Cronbach's Alpha; and (2) structural model testing (inner model) to assess the strength of relationships between variables using R^2, f^2, and significance values (t-statistics and p-values) through bootstrapping procedures.

RESULTS AND DISCUSSION

Preliminary Analysis: Classical Assumption and Measurement Validity

Before testing the proposed hypotheses, it is essential to first conduct classical assumption testing. This step ensures that the dataset meets the fundamental statistical assumptions required to validate the subsequent analyses. As noted by Ghozali (2011), classical assumption testing includes several key procedures, namely normality testing, multicollinearity, heteroscedasticity, and autocorrelation. These tests aim to assess whether the data are normally distributed, free from excessive correlation among independent

variables, exhibit homoscedastic residuals, and possess independent residuals across observations. In the context of normality, the Kolmogorov–Smirnov (K-S) test is commonly applied to determine whether the distribution of variables adheres to a normal curve.

Based on the results of the Kolmogorov–Smirnov test, all variables used in the model—ROA, CR, DER, PER, and stock returns—showed significance values greater than 0.05. This indicates that the data are normally distributed and meet the basic assumptions for further analysis using SEM or regression techniques.

Convergent validity testing was carried out to assess the extent to which the indicators within a construct consistently represent the latent variable. In this study, five constructs were evaluated: Return on Assets (X1_ROA), Current Ratio (X2_CR), Debt to Equity Ratio (X3_DER), Price to Earning Ratio (Z_PER), and Stock Return (Y_ReturnSaham), each measured with three indicators.

The results revealed that all indicators demonstrated extremely high loading factors, ranging from 0.999 to 1.000. These values substantially exceed the minimum threshold for convergent validity, which is set at 0.70. The construct of Return on Assets (ROA) showed excellent internal consistency, with loading factors between 0.999 and 1.000, indicating that the indicators strongly reflect the underlying variable. Similarly, the Current Ratio (CR) construct showed perfect internal correlation among its indicators (1.000), confirming ideal representation of the latent variable.

Likewise, the indicators for the Debt to Equity Ratio (DER) construct demonstrated robust convergent validity, with loading factors between 0.999 and 1.000. The Price to Earning Ratio (PER), serving as the mediating variable, also exhibited perfect internal consistency (1.000), reinforcing the reliability and validity of the indicators used. The Stock Return construct also achieved strong convergent validity, with loading factors ranging from 0.999 to 1.000, confirming the internal coherence of its measurement.

These results collectively indicate that all constructs in the model satisfy the criteria for convergent validity. Thus, all indicators used in this study are valid and suitable for advanced analysis, including structural model and mediation testing via Structural Equation Modeling (SEM) based on Partial Least Squares (PLS).

Convergent validity was further assessed using the Average Variance Extracted (AVE). A construct is considered to meet the criterion for convergent validity if its AVE value exceeds 0.50. In this study, all constructs—X1_ROA, X2_CR, X3_DER, Z_PER, and Y_ReturnSaham—demonstrated AVE values of 1.00, far surpassing the minimum threshold. This indicates that each indicator explains more than 50% of the variance within its construct, thus satisfying the requirement for high convergent validity.

Additionally, the Composite Reliability (CR) values for all constructs were reported at 1.00. As noted by Hair et al. (2017), a CR value above 0.70 indicates strong internal reliability. Therefore, these results confirm that the indicators consistently measure their intended constructs with a high degree of reliability.

Jurnal Multidisiplin Sahombu
Volume 5, Number 04, 2025, DOI 10.58471/jms.v5i04
ESSN 2809-8587 (Online)
https://ejournal.seaninstitute.or.id/index.php/JMS/index

R-Square Test

The R-square test is used to determine the extent to which the independent variables can explain the variation in both the dependent and intervening variables in this research model. Based on the data processing results using SmartPLS software, the following R-square values were obtained:

Table 1. R Square

R Square

	R Square	R Square Adjusted
PER (PRICE TO EARNING RATIO)	0,999	0,998
RETURN SAHAM	0,999	0,998

The Price to Earning Ratio (PER), as the intervening variable, has an R-square value of 0.999 and an adjusted R-square of 0.998. Meanwhile, the stock return, as the dependent variable, also shows an R-square value of 0.999 and an adjusted R-square of 0.998.

These exceptionally high R-square values indicate that the model possesses a very strong predictive capability. Specifically, 99.9% of the variance in PER can be explained by the combination of independent variables—Return on Assets (ROA), Current Ratio (CR), and Debt to Equity Ratio (DER). Similarly, 99.9% of the variance in stock returns can be accounted for by the combination of ROA, CR, DER, and PER as the mediating variable.

Effect Size (f^2) Test

Table 2. f^2 Test

	CR	DER	PER (PRICE TO EARNING	RETURN SAHAM	ROA
CR			0,142	0,112	
DER			0,109	0,105	
PER (PRI				0,339	
RETURN					
ROA			0,185	0,124	

The f^2 test is used to determine the extent of each independent variable's contribution or influence on the dependent variable within the structural model. The f^2 value provides an overview of the strength of the partial relationships among variables in the model.

All f^2 values in this model exceed the minimum threshold of 0.02, indicating that all independent variables make statistically significant structural contributions to the model. Among them, the PER variable exhibits the most substantial effect on stock returns, while the other variables show small to moderate effects that remain statistically relevant.

Goodness of Fit and Path Coefficient Analysis

Based on the Goodness of Fit (GoF) analysis, a GoF value of 0.943 was obtained, which falls into the high category. This indicates that the constructed model has an excellent degree of fit and is highly reliable in explaining the relationships between the variables examined in this study. Therefore, the model is appropriate for drawing conclusions.

Path coefficient analysis produced the following results:

a. Current Ratio (CR) → PER: Coefficient = 0.840, t-statistic = 20.945, p = 0.000. This indicates a positive and significant effect, suggesting that higher liquidity increases market valuation through PER.

Jurnal Multidisiplin Sahombu
Volume 5, Number 04, 2025, DOI 10.58471/jms.v5i04
ESSN 2809-8587 (Online)
https://ejournal.seaninstitute.or.id/index.php/JMS/index

b. CR → Stock Return: Coefficient = 0.186, t = 0.598, p = 0.550. The effect is statistically insignificant, meaning CR does not directly influence stock returns.
c. DER → PER: Coefficient = 0.118, t = 3.261, p = 0.001. A small but significant positive effect, indicating that capital structure affects investor perceptions via PER.
d. DER → Stock Return: Coefficient = 0.336, t = 3.344, p = 0.001. This suggests that higher leverage may lead to higher returns, potentially due to favorable investor expectations regarding profitability amplification through debt.
e. ROA → PER: Coefficient = 0.050, t = 1.053, p = 0.293. This effect is statistically insignificant, showing that profitability does not significantly influence PER.
f. PER → Stock Return: Coefficient = 0.430, t = 1.399, p = 0.163. Despite theoretical expectations, PER does not significantly impact stock return, possibly due to earnings volatility or nonlinear investor reactions in the transportation sector.

Mediation analysis further confirms that PER does not serve as an effective mediating variable. Although DER significantly affects PER, the influence of PER on stock return is not significant. Similarly, ROA does not significantly affect PER, and the indirect effect on stock return via PER is also insignificant. Therefore, the indirect relationships (ROA → PER → Stock Return and DER → PER → Stock Return) are both statistically unsupported, and PER cannot be considered a valid intervening variable in this context.

These findings suggest that internal financial ratios—despite their significance in financial analysis—may not have a strong direct or indirect influence on stock returns in the transportation sector during the observed period. External factors such as macroeconomic conditions, investor sentiment, and market speculation may play a more prominent role in shaping stock return performance in this industry.

CONCLUSION

This study aimed to examine the mediating role of the Price to Earning Ratio (PER) in the relationship between financial ratios, Return on Assets (ROA), Current Ratio (CR), and Debt to Equity Ratio (DER), and stock returns of transportation sector companies listed on the Indonesia Stock Exchange for the 2020–2024 period. The findings reveal that both CR and DER have a significant and positive influence on PER, whereas ROA does not significantly affect PER. Despite this, PER does not significantly influence stock returns, indicating its inability to serve as an effective intervening variable. Moreover, none of the financial ratios (ROA, CR, DER) show significant direct effects on stock returns. This suggests that investor decision-making in the transportation sector may be more heavily influenced by external factors, such as macroeconomic conditions and market sentiment, rather than internal financial performance alone. The results also confirm that PER does not mediate the relationship between DER or ROA and stock returns. Although DER and CR influence PER, these effects do not translate into meaningful changes in stock returns. Consequently, this research contributes to the understanding that traditional financial indicators may have limited predictive power on stock performance in the transportation sector, especially in times of heightened market volatility.

REFERENCE

Amaroh, S., & Nasichah, C. (2021). Risk-Return Analysis on Optimum Portfolio Selection of Islamic Stocks. Equilibrium: Jurnal Ekonomi Syariah, 9(1), 65. https://doi.org/10.21043/equilibrium.v9i1.9433

Bambang Wahyudiono, S., & MM, Q. (2014). Mudah Membaca Laporan Keuangan. Raih Asa Sukses.

Brigham, E. F., & Houston, J. F. (2019). Fundamentals of financial management. Cengage Learning.

Budiprasetyo, G., Hani'ah, M., & Aflah, D. Z. (2023). Prediksi Harga Saham Syariah Menggunakan Algoritma Long Short-Term Memory (LSTM). Jurnal Nasional Teknologi dan Sistem Informasi, 8(3), 164–172. https://doi.org/10.25077/TEKNOSI.v8i3.2022.164-172

Fahmi, I. (2012). Analisis kinerja keuangan: Panduan bagi akademisi, manajer, dan investor untuk menilai dan menganalisis bisnis dari aspek keuangan.

Ghozali_Imam_2011_Aplikasi_Analisis_Mult. (n.d.).

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., & Thiele, K. O. (2017). Mirror, mirror on the wall: A comparative evaluation of composite-based structural equation modeling methods. Journal of the Academy of Marketing Science, 45, 616–632.

Hanafi, M. M., & Halim, A. (2012). Analisis laporan keuangan, edisi keempat. Yogyakarta: Upp Stim Ykpn, 7(2).

Kasmadi, K., Kamal, M., & Rahmadani, A. (2024). Pengaruh ROA, DER, dan PER Terhadap Return Saham Perusahaan Subsektor Transportasi dan Logistik BEI 2020-2022. Jurnal Akuntansi Dan Teknologi Keuangan, 2(2), 120–124.

Shufiaziis, R., & Iradianty, A. (2023). Analisis Pengaruh ROA, CR, TATO dan DER Terhadap Return Saham (Studi Kasus Pada Perusahaan Sub Sektor Minyak Dan Gas Yang Terdaftar di Bursa Efek Indonesia (BEI) Periode 2020-2021). Innovative: Journal Of Social Science Research, 3(3), 8379–8392.

Sri Hayati, S., & Si, M. (2017). Manajemen resiko untuk bank perkreditan rakyat dan lembaga keuangan mikro. Penerbit Andi.

Umam, D. C., & Yusuf, Y. (2024). Determinants of financial distress: Review of the aspects of profitability, liquidity, leverage, and activity. *International Journal Multidisciplinary Science*, *3*(1), 36-44.

Wijayanti, R., & Frimayasa, A. (2023). Pengaruh Debt to Equity Ratio (DER), Growth Dan Dividen Terhadap Nilai Perusahaan Pada Perusahaan Sektor Pertambangan. JURNAL EKONOMI, MANAJEMEN, BISNIS, DAN SOSIAL (EMBISS), 3(4), 440–448.

Yusuf, Y., & Suherman, A. (2021). Pengaruh Likuiditas Dan Profitabilitas Terhadap Kebijakan Dividen Dengan Variabel Ukuran Perusahaan Sebagai Variabel Mediasi. *Jurnal Akuntansi Dan Bisnis Indonesia (JABISI)*, *2*(1), 39-49.