DETERMINANTS OF PROFITABILITY IN INDONESIAN TEXTILE AND GARMENT FIRMS: THE MODERATING ROLE OF EXCHANGE RATE

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Abstract

This study examines the determinants of profitability in Indonesian textile and garment firms by analyzing the effects of capital structure, working capital, liquidity, and firm size, with the exchange rate as a moderating variable. Despite extensive research on corporate profitability, prior studies have reported inconsistent findings and have rarely incorporated macroeconomic factors, particularly exchange rate fluctuations, as moderating variables in the Indonesian manufacturing context. This study adopts a quantitative explanatory approach using balanced panel data from textile and garment companies listed on the Indonesia Stock Exchange during the 2020–2024 period. Panel data regression with the Fixed Effect Model (FEM) is employed, followed by Moderated Regression Analysis (MRA) to examine the interaction effects. The results indicate that capital structure, working capital, and firm size have a positive and significant effect on profitability, while liquidity does not have a significant direct effect. Furthermore, the exchange rate significantly moderates the relationship between capital structure and liquidity on profitability and weakens the effect of firm size on profitability. However, the exchange rate does not moderate the relationship between working capital and profitability. These findings highlight the importance of integrating internal financial management with external macroeconomic considerations, particularly exchange rate volatility, in sustaining firm profitability. This study contributes to the financial management literature by providing empirical evidence on the moderating role of exchange rates and offers practical implications for corporate decision-making in emerging market contexts.

Keywords: Capital Structure, Working Capital, Liquidity, Firm Size, Profitability, Exchange Rate

INTRODUCTION

The textile and garment industry continues to play a strategic role in Indonesia's manufacturing sector, particularly in supporting employment, export performance, and national economic growth. As a labor-intensive industry with strong export orientation, its performance is highly sensitive to both domestic and global economic conditions. However, firms in this sector often face structural challenges, including relatively low profit margins, a high reliance on imported raw materials, and significant exposure to exchange rate fluctuations (World Bank, 2021; Bank Indonesia, 2023). These conditions make profitability a crucial indicator of firm sustainability and competitiveness.

Profitability reflects a firm's ability to efficiently manage its resources to generate earnings over time. Among various financial indicators, Return on Assets (ROA) is widely recognized as a comprehensive measure because it captures how effectively assets are utilized to produce profits, regardless of the financing structure (Brigham & Houston, 2018; Ross et al., 2019). In asset-intensive industries such as textile and garment manufacturing, ROA becomes particularly relevant for evaluating both operational efficiency and overall financial performance.

A range of internal financial factors are commonly associated with firm profitability, including capital structure, working capital, liquidity, and firm size. Capital structure decisions determine the proportion of debt and equity used by firms and are closely linked to financial risk and cost of capital (Modigliani & Miller, 1963; Brigham & Ehrhardt, 2017). Working capital management plays a vital role in maintaining operational continuity and ensuring efficient short-term asset utilization (Van Horne & Wachowicz, 2009). Liquidity reflects a firm's capacity to meet its short-term obligations, while firm size is often associated with economies of scale, better access to financing, and greater operational stability (Arisanti, 2020).

Despite extensive research on these variables, empirical findings remain inconclusive. Some studies report a positive relationship between financial factors and profitability, while others find insignificant or even contradictory results (Gill et al., 2010; Sabakodi & Andreas, 2024; Rahmadhani & Suwaidi, 2025). These inconsistencies indicate that the effect of internal financial variables on profitability may not be uniform and could depend on external conditions faced by firms.

One important external factor that may influence this relationship is the exchange rate. For Indonesian textile and garment firms, fluctuations in the rupiah against the US dollar have direct implications for production costs, particularly due to the high dependence on imported raw materials and exposure to foreign currency liabilities (Krugman & Obstfeld, 2018). Exchange rate depreciation, for example, can increase input costs and reduce profit margins, thereby altering the effectiveness of internal financial policies. This suggests that the exchange rate may not only have a direct impact on firm performance but also act as a moderating variable that conditions the relationship between financial decisions and profitability.

However, the moderating role of the exchange rate in this context has not been widely explored, especially within the Indonesian textile and garment industry. Most previous studies tend to focus on direct relationships between internal financial variables and profitability, without considering the interaction with macroeconomic dynamics. This gap

highlights the need for a more comprehensive approach that integrates firm-level financial factors with external economic conditions.

Based on these considerations, this study aims to examine the effects of capital structure, working capital, liquidity, and firm size on firm profitability, while incorporating the exchange rate as a moderating variable. Using panel data from textile and garment companies listed on the Indonesia Stock Exchange during the 2020–2024 period, this study applies the Fixed Effect Model and Moderated Regression Analysis to capture both direct and interaction effects.

This study is expected to contribute to the financial management literature by providing empirical evidence on how exchange rate fluctuations shape the relationship between internal financial variables and profitability. In addition, the findings offer practical insights for corporate managers in designing adaptive financial strategies under exchange rate uncertainty, as well as for investors in evaluating firm performance in a dynamic macroeconomic environment.

REVIEW OF LITERATURE

Profitability (Return on Assets)

Profitability represents a firm's ability to generate earnings from its resources over a certain period and serves as a key indicator of financial performance. In corporate finance, profitability is often measured using Return on Assets (ROA), which reflects how efficiently a firm utilizes its total assets to produce net income (Brigham & Houston, 2018; Ross et al., 2019). A higher ROA indicates more effective asset management and better operational performance. For asset-intensive industries such as textile and garment manufacturing, ROA is considered a relevant proxy because it captures both operational efficiency and financial effectiveness.

Capital Structure and Profitability

Capital structure refers to the proportion of debt and equity used by a firm to finance its operations. According to the Trade-Off Theory, firms seek an optimal balance between the benefits of debt, such as tax shields, and the costs associated with financial distress (Modigliani & Miller, 1963; Brigham & Ehrhardt, 2017). The use of debt can enhance profitability as long as it is managed efficiently and remains within an optimal level.

Empirical studies show mixed results regarding the relationship between capital structure and profitability. Some studies find a positive and significant effect, indicating that firms can utilize debt to improve performance through leverage (Sabakodi & Andreas, 2024). However, excessive reliance on debt may increase financial risk and reduce profitability. Therefore, the impact of capital structure on profitability depends on how effectively firms manage their financing decisions.

Working Capital and Profitability

Working capital reflects the firm's ability to manage its short-term assets and liabilities to support daily operations. Efficient working capital management ensures smooth production processes, timely payment of obligations, and effective cash flow circulation (Van Horne & Wachowicz, 2009).

From a theoretical perspective, Working Capital Management Theory emphasizes the importance of balancing liquidity and profitability. Firms that manage working capital efficiently tend to achieve higher profitability due to improved operational efficiency and

reduced financing costs. Empirical evidence supports this view, showing that effective working capital management positively influences firm profitability (Gill et al., 2010; Yusuf, 2022). In the textile and garment industry, which relies heavily on inventory and production cycles, working capital plays a critical role in sustaining operational performance.

Liquidity and Profitability

Liquidity refers to a firm's ability to meet its short-term obligations using its current assets. It is commonly measured using the Current Ratio (CR). While adequate liquidity is essential for maintaining financial stability, excessively high liquidity may indicate inefficient use of resources.

The Liquidity–Profitability Trade-Off Theory suggests that maintaining high liquidity may reduce profitability due to the presence of idle assets that do not generate returns (Van Horne & Wachowicz, 2009). Empirical findings on the relationship between liquidity and profitability are inconsistent. Some studies report a positive relationship, while others find no significant effect (Arisanti, 2020; Rahmadhani & Suwaidi, 2025). These differences suggest that the impact of liquidity depends on how effectively current assets are utilized.

Firm Size and Profitability

Firm size is often associated with total assets and reflects the scale of a company's operations. Larger firms are generally believed to have advantages such as economies of scale, better access to external financing, and stronger market power (Brigham & Houston, 2018).

According to the Economies of Scale Theory, larger firms can reduce average costs and improve efficiency, which leads to higher profitability. Empirical studies generally support this argument, showing a positive relationship between firm size and profitability (Arisanti, 2020). However, large firms may also face challenges such as operational complexity and inefficiency, which can weaken their performance under certain conditions.

Exchange Rate as a Moderating Variable

The exchange rate represents the value of a country's currency relative to foreign currencies and plays a crucial role in international trade and financial activities. For firms operating in import-dependent industries, exchange rate fluctuations can significantly affect production costs, revenue, and overall financial performance (Krugman & Obstfeld, 2018).
Exchange rate volatility may act as a moderating variable that influences the relationship between internal financial factors and profitability. For example, depreciation of the domestic currency can increase the cost of imported raw materials and amplify financial risk, particularly for firms with foreign-denominated debt. Empirical studies suggest that macroeconomic variables, including exchange rates, can strengthen or weaken the impact of firm-specific factors on financial performance (Siregar & Aisyah, 2023).

In the context of the textile and garment industry, exchange rate movements are particularly relevant due to the sector's dependence on imported inputs and exposure to global markets. Therefore, incorporating the exchange rate as a moderating variable provides a more comprehensive understanding of how internal financial decisions interact with external economic conditions in determining profitability.

Hypothesis Development

Based on the theoretical framework and empirical findings, the following hypotheses are proposed:

H1: Capital structure has a positive and significant effect on profitability.
H2: Working capital has a positive and significant effect on profitability.
H3: Liquidity has a significant effect on profitability.
H4: Firm size has a positive and significant effect on profitability.
H5: Capital structure, working capital, liquidity, and firm size simultaneously have a significant effect on profitability.
H6: The exchange rate moderates the relationship between capital structure and profitability.
H7: The exchange rate moderates the relationship between working capital and profitability.
H8: The exchange rate moderates the relationship between liquidity and profitability.
H9: The exchange rate moderates the relationship between firm size and profitability.
H10: Capital structure, working capital, liquidity, firm size, the exchange rate, and their interaction terms simultaneously have a significant effect on profitability.

RESEARCH METHOD

This study employs a quantitative approach with an explanatory research design to analyze the causal relationships between internal financial factors and firm profitability, as well as the moderating role of the exchange rate. The explanatory design is appropriate because this study aims to test theoretically grounded hypotheses regarding the effects of capital structure, working capital, liquidity, and firm size on profitability.

The population of this study consists of textile and garment companies listed on the Indonesia Stock Exchange during the 2020–2024 period. This sector is selected due to its capital-intensive nature, reliance on imported raw materials, and sensitivity to exchange rate fluctuations. The sample is determined using purposive sampling, with the following criteria: (1) companies consistently listed on the Indonesia Stock Exchange during the observation period, (2) companies that publish complete annual financial statements, and (3) companies with complete data for all research variables. This sampling technique ensures the availability and consistency of panel data for analysis.

The data used in this study are secondary data obtained from annual reports and financial statements published by companies, as well as official sources such as the Indonesia Stock Exchange and Bank Indonesia. Exchange rate data are measured using the annual average exchange rate of the Indonesian rupiah against the US dollar. The use of secondary data allows for objective and verifiable measurement across firms and time periods.

This study utilizes balanced panel data, combining cross-sectional data across firms and time-series data over the 2020–2024 period. The dependent variable in this study is profitability, measured by Return on Assets (ROA). The independent variables consist of capital structure, proxied by the Debt to Assets Ratio (DAR); working capital, measured by Net Working Capital (NWC); liquidity, proxied by the Current Ratio (CR); and firm size, measured by the natural logarithm of total assets (SIZE). The exchange rate (ER) is treated as a moderating variable.

To analyze the data, panel data regression is employed using EViews 12 software. The analysis begins with descriptive statistics to describe the characteristics of the data. Subsequently, panel data regression models are estimated using the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). The most appropriate model is selected through the Chow test, Hausman test, and Lagrange Multiplier test to ensure the robustness and consistency of the estimation results.

The basic regression model is specified as follows:

$$ROA\_it = \beta0 + \beta1DAR\_it + \beta2NWC\_it + \beta3CR\_it + \beta4SIZE\_it + \varepsilon\_it$$

To examine the moderating role of the exchange rate, Moderated Regression Analysis (MRA) is applied by incorporating interaction terms between the exchange rate and each independent variable. The moderating regression model is formulated as follows:

$$ROA\_it = \beta0 + \beta1DAR\_it + \beta2NWC\_it + \beta3CR\_it + \beta4SIZE\_it + \beta5ER\_it + \beta6(DAR\times ER)\_it + \beta7(NWC\times ER)\_it + \beta8(CR\times ER)\_it + \beta9(SIZE\times ER)\_it + \varepsilon\_it$$

Hypothesis testing is conducted using the t-test to examine partial effects, the F-test to assess the simultaneous effects of independent variables, and the coefficient of determination (R^2) to evaluate the explanatory power of the model. A significance level of 5 percent is used as the threshold for statistical inference.

RESULTS AND DISCUSSION

Model Selection

The sequence of panel data regression model selection tests, consisting of the Chow test, Hausman test, and Lagrange Multiplier test, is conducted to determine the most appropriate and consistent estimation model among the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM). This procedure ensures that the resulting estimates are unbiased and accurately represent the underlying characteristics of the data.

Based on the results of the Chow test and the Hausman test, the probability value obtained is 0.0000, which is lower than the 5 percent significance level. Therefore, the Fixed Effect Model (FEM) is determined to be the most appropriate panel data regression model for this study. The results of the Lagrange Multiplier test indicate that the Random Effect Model is not superior to the Common Effect Model.

Accordingly, the Fixed Effect Model is selected as the final estimation model, as it is able to capture differences in individual characteristics across firms more accurately and provides consistent parameter estimates.

The basic regression model used in this study is formulated as follows:

$$ROA\_it = \alpha + \beta1DAR\_it + \beta2NWC\_it + \beta3CR\_it + \beta4SIZE\_it + \varepsilon\_it$$

To examine the role of the exchange rate as a moderating variable, the Moderated Regression Analysis (MRA) approach is employed by constructing interaction terms between the exchange rate and each independent variable. The moderating regression model is specified as follows:

$$ROA\_it = \alpha + \beta1DAR\_it + \beta2NWC\_it + \beta3CR\_it + \beta4SIZE\_it + \beta5ER\_t + \beta6(DAR \times ER)\_it + \beta7(NWC \times ER)\_it + \beta8(CR \times ER)\_it + \beta9(SIZE \times ER)\_it + \varepsilon\_it$$

Table 1
Model Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-18.17159	3.598243	-5.050129	0.0000
DAR	0.433681	0.187336	2.314991	0.0236

NWC	4.12E-14	9.80E-15	4.197847	0.0001
CR	0.214316	0.132625	1.615951	0.1107
SIZE	1.473227	0.291691	5.050636	0.0000

Effects Specification

Cross-section fixed (dummy variables)

Root MSE	0.121087	R-squared	0.709231
Mean dependent var	-0.058307	Adjusted R-squared	0.619435
S.D. dependent var	0.225813	S.E. of regression	0.139304
Akaike info criterion	-0.895727	Sum squared resid	1.319585
Schwarz criterion	-0.284662	Log likelihood	62.30770
Hannan-Quinn criter.	-0.649310	F-statistic	7.898222
Durbin-Watson stat	1.562958	Prob(F-statistic)	0.000000

Source: Processed data using EViews

The coefficient of the Debt to Assets Ratio (DAR) is 0.433681 with a probability value of 0.0236 < 0.05, indicating that DAR has a positive and significant effect on ROA. This finding implies that an increase in the proportion of debt relative to assets can enhance firm profitability, suggesting that the use of debt remains at a productive level and provides leverage benefits.

The coefficient of Net Working Capital (NWC) is 4.12E-14 with a probability value of 0.0001 < 0.05, indicating that NWC has a positive and significant effect on ROA. This result suggests that effective working capital management can improve firm profitability through smoother operations and more efficient cash flow circulation.

The coefficient of the Current Ratio (CR) is 0.214316 with a probability value of 0.1107 > 0.05, indicating that CR does not have a significant effect on ROA. This finding implies that a firm's liquidity level does not necessarily contribute directly to increased profitability, possibly due to the presence of current assets that have not been utilized optimally.

The coefficient of firm size (SIZE) is 1.473227 with a probability value of 0.0000 < 0.05, indicating that firm size has a positive and significant effect on ROA. This suggests that firms with larger asset scales tend to achieve higher profitability, consistent with the concept of economies of scale.

The F-statistic value of 7.898222 with a probability of 0.000000 < 0.05 indicates that capital structure (DAR), working capital (NWC), liquidity (CR), and firm size (SIZE) simultaneously have a significant effect on ROA. Therefore, the regression model employed is appropriate and capable of explaining the relationship between the independent variables and firm profitability.

The R-squared value of 0.709231 indicates that 70.92% of the variation in profitability (ROA) can be explained by DAR, NWC, CR, and SIZE in this research model. Meanwhile, the remaining 29.08% is explained by other variables outside the model. The Adjusted R-squared value of 0.619435 indicates that after adjusting for the number of variables and sample size, the model still possesses strong explanatory power, leading to the conclusion that the regression model has good explanatory capability.

Table 2
Model Regression with Moderation Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-36.69631	8.701700	-4.217142	0.0001
DAR	-11.20741	2.051769	-5.462313	0.0000
NWC	2.32E-14	1.09E-13	0.212606	0.8323
CR	-10.77613	2.178177	-4.947318	0.0000
SIZE	3.175174	0.710601	4.468291	0.0000
ER	0.001235	0.000552	2.238007	0.0288
DAR×ER	0.000771	0.000135	5.729096	0.0000
NWC×ER	1.41E-18	7.53E-18	0.186884	0.8524
CR×ER	0.000733	0.000145	5.053200	0.0000
SIZE×ER	-0.000113	4.53E-05	-2.505012	0.0148
Effects Specification				
Cross-section fixed (dummy variables)				
Root MSE	0.093902	R-squared		0.825134
Mean dependent var	-0.058307	Adjusted R-squared		0.752967
S.D. dependent var	0.225813	S.E. of regression		0.112235
Akaike info criterion	-1.293123	Sum squared resid		0.793589
Schwarz criterion	-0.543180	Log likelihood		85.19052
Hannan-Quinn criter.	-0.990701	F-statistic		11.43366
Durbin-Watson stat	1.552838	Prob(F-statistic)		0.000000

Source: Processed data using EViews

The coefficient of the interaction variable between the Debt to Assets Ratio and the exchange rate (DAR×ER) is 0.000771 with a probability value of 0.0000 < 0.05, indicating that the exchange rate significantly moderates the effect of capital structure on ROA. The positive coefficient suggests that exchange rate fluctuations strengthen the impact of capital structure on profitability. This implies that the effect of debt utilization on firm profitability becomes stronger when exchange rate changes occur.

The coefficient of the interaction variable between Net Working Capital and the exchange rate (NWC×ER) is 1.41E–18 with a probability value of 0.8524 > 0.05, indicating that the exchange rate does not moderate the effect of working capital on ROA. This finding suggests that the effectiveness of working capital in enhancing profitability is relatively stable and not sensitive to exchange rate fluctuations.

The coefficient of the interaction variable between the Current Ratio and the exchange rate (CR×ER) is 0.000733 with a probability value of 0.0000 < 0.05, indicating that the exchange rate significantly moderates the effect of liquidity on ROA. The positive coefficient indicates that the exchange rate strengthens the relationship between liquidity and profitability, implying that a firm's liquidity capacity to generate profits becomes more important during periods of exchange rate fluctuation.

The coefficient of the interaction variable between firm size and the exchange rate (SIZE×ER) is −0.000113 with a probability value of 0.0148 < 0.05, indicating that the exchange rate significantly moderates the effect of firm size on ROA with a negative direction. This result implies that exchange rate fluctuations weaken the positive effect of firm size on profitability. In other words, the advantages associated with firm scale become less effective in enhancing profitability when the exchange rate experiences volatility.

The F-statistic value of 11.43366 with a probability value of 0.000000 < 0.05 indicates that all independent variables and interaction variables (exchange rate moderation) simultaneously have a significant effect on ROA. Therefore, the moderating regression model employed is considered appropriate and fit to explain the relationship between financial variables and firm profitability.

The R-squared value of 0.825134 indicates that 82.51% of the variation in ROA can be explained by DAR, NWC, CR, SIZE, the exchange rate, and the interaction variables (DAR×ER, NWC×ER, CR×ER, and SIZE×ER) included in the moderating model.

Meanwhile, the Adjusted R-squared value of 0.752967 indicates that after adjusting for the number of variables and sample size, the model still exhibits very strong explanatory power. This finding confirms that incorporating the exchange rate as a moderating variable enhances the model's ability to explain firm profitability compared to the model without moderation.

Effect of Capital Structure on Profitability (H1)

The regression results indicate that capital structure, as measured by the Debt to Assets Ratio (DAR), has a positive and statistically significant influence on profitability (ROA). This finding implies that a higher proportion of debt relative to total assets is associated with improved firm performance. In practical terms, firms in the textile and garment sector are able to utilize debt financing effectively to support productive activities and enhance returns.

This result is in line with the Trade-Off Theory, which suggests that the use of debt can create benefits through tax shields, provided that financial risks remain manageable (Modigliani & Miller, 1963; Brigham & Ehrhardt, 2017). By allocating debt toward operational expansion and investment, firms can generate returns that exceed the cost of borrowing.

Empirical evidence also supports this finding. Studies by Sabakodi and Andreas (2024) and Prabowo and Sutanto (2019) demonstrate that well-managed leverage contributes positively to firm performance. In capital-intensive industries such as textile and garment, debt plays a crucial role in financing production capacity, procurement of raw materials, and technological investment. However, firms must still maintain an optimal capital structure, as excessive debt may increase financial burden and reduce profitability (Brigham & Houston, 2018).

Effect of Working Capital on Profitability (H2)

The findings show that working capital has a positive and significant effect on profitability. This indicates that firms with better management of current assets and liabilities tend to achieve higher returns.

From a theoretical perspective, this result supports the Working Capital Management Theory, which emphasizes that efficient management of short-term resources ensures smooth operations and improves financial outcomes (Van Horne & Wachowicz, 2009). Adequate

working capital allows firms to maintain production continuity without relying excessively on external financing.

This result is consistent with previous studies, including Wahyuni (2022) and Yusuf (2022), which highlight the importance of effective working capital management in enhancing firm performance. In the textile and garment industry, where inventory and production cycles are relatively long, proper working capital management becomes essential for maintaining operational efficiency.

Effect of Liquidity on Profitability (H3)

The analysis indicates that liquidity does not have a significant effect on profitability. Although liquidity is important for meeting short-term obligations, it does not necessarily translate into higher returns.

This finding can be explained by the Liquidity–Profitability Trade-Off Theory, which suggests that excessive liquidity may result in idle assets that do not contribute to income generation (Van Horne & Wachowicz, 2009). As a result, firms with high liquidity levels may not always achieve better profitability.

Empirical evidence from Arisanti (2020) supports this conclusion, showing that liquidity does not significantly influence firm performance. However, other studies, such as Dauda et al. (2021), report different results, indicating that the effect of liquidity may vary depending on industry characteristics and asset utilization efficiency.

Effect of Firm Size on Profitability (H4)

The results reveal that firm size has a positive and significant impact on profitability. Larger firms tend to perform better due to their ability to achieve economies of scale and access wider financial resources.

This finding is consistent with the Economies of Scale Theory, which explains that firms with larger asset bases can operate more efficiently and reduce average costs (Brigham & Houston, 2018). In addition, larger firms generally have stronger bargaining power and better access to capital markets.

Empirical studies by Arisanti (2020) and Siregar and Aisyah (2023) also support this relationship. In the textile and garment industry, larger firms are more capable of expanding production capacity and entering broader markets, which contributes to higher profitability.

Simultaneous Effect of Financial Variables on Profitability (H5)

The simultaneous test results confirm that capital structure, working capital, liquidity, and firm size jointly have a significant effect on profitability. This suggests that firm performance is influenced by a combination of financial decisions rather than a single factor.

This finding aligns with the financial management perspective, which emphasizes the integration of financing, operational, and liquidity decisions in determining firm performance (Brigham & Houston, 2018). Empirical studies, including Arisanti (2020) and Sabakodi and Andreas (2024), also highlight the importance of combined financial factors in explaining profitability.

The relatively high R^2 value further indicates that these variables provide strong explanatory power in predicting profitability (Ross et al., 2019). In practice, firms must manage these financial aspects simultaneously to achieve optimal performance (Van Horne & Wachowicz, 2009).

Moderating Effect of Exchange Rate on Capital Structure (H6)

The results show that the exchange rate significantly moderates the relationship between capital structure and profitability. The positive interaction suggests that exchange rate fluctuations strengthen the influence of leverage on firm performance.

This finding can be explained by the interaction between Trade-Off Theory and exchange rate exposure. When exchange rates fluctuate, particularly in import-dependent industries, the impact of debt becomes more pronounced due to changes in production costs and financial obligations (Krugman & Obstfeld, 2018).

Empirical evidence from Siregar and Aisyah (2023) and Nugroho and Santoso (2021) supports this result, indicating that firms with higher leverage are more sensitive to exchange rate movements. Therefore, the exchange rate acts as a contingency factor that influences the effectiveness of capital structure decisions.

Moderating Effect of Exchange Rate on Working Capital (H7)

The findings indicate that the exchange rate does not moderate the relationship between working capital and profitability. This suggests that working capital management is primarily determined by internal operational policies rather than external macroeconomic conditions.

Theoretically, working capital management focuses on internal efficiency, including inventory control, receivables, and cash flow management (Van Horne & Wachowicz, 2009). Empirical studies by Wahyuni (2022) and Yusuf (2022) also show that working capital performance is relatively stable and not highly sensitive to exchange rate fluctuations.

Moderating Effect of Exchange Rate on Liquidity (H8)

The results indicate that the exchange rate significantly moderates the relationship between liquidity and profitability. The positive interaction implies that liquidity becomes more important during periods of exchange rate volatility.

This finding suggests that liquidity acts as a buffer against external shocks, particularly in managing rising costs due to currency depreciation. Firms with strong liquidity positions are better able to maintain operational stability under uncertain economic conditions (Van Horne & Wachowicz, 2009).

Empirical studies, such as Dauda et al. (2021) and Siregar and Aisyah (2023), also highlight the increasing importance of liquidity in volatile macroeconomic environments.

Moderating Effect of Exchange Rate on Firm Size (H9)

The results show that the exchange rate weakens the relationship between firm size and profitability. This indicates that although larger firms have advantages, these benefits may diminish under exchange rate volatility.

This finding is consistent with the Exchange Rate Exposure Theory, which suggests that firms with larger operational scales face greater exposure to external economic risks (Shapiro, 1996). Empirical studies also support this result, showing that large firms may experience higher sensitivity to exchange rate fluctuations (Nugroho & Santoso, 2021).

Simultaneous Effect of Moderated Model (H10)

The results of the moderated model indicate that all variables, including interaction terms, jointly have a significant effect on profitability. This confirms that the inclusion of the exchange rate enhances the explanatory power of the model.

From a methodological perspective, this finding supports the validity of the Moderated Regression Analysis approach (Baron & Kenny, 1986). Empirical evidence also

shows that models incorporating macroeconomic variables provide better explanations of firm performance (Siregar & Aisyah, 2023).

The higher R^2 value indicates that the exchange rate plays an important role in strengthening the model's ability to explain profitability (Ross et al., 2019; Gujarati & Porter, 2010).

CONCLUSION

This study explores how internal financial factors shape profitability in Indonesian textile and garment firms, while also considering the role of exchange rate movements as a moderating variable. The results show that capital structure, working capital, and firm size contribute positively to profitability, indicating that firms are able to utilize financing decisions, manage short-term resources, and leverage their scale to improve performance. In contrast, liquidity does not show a direct influence, suggesting that holding higher current assets alone does not necessarily lead to better returns. At the same time, the combined effect of these variables confirms that profitability is formed through the interaction of multiple financial decisions rather than a single factor. The findings also reveal that exchange rate fluctuations play a meaningful role, as they strengthen the influence of capital structure and liquidity, reduce the impact of firm size, and leave the relationship between working capital and profitability relatively unchanged.

From a practical perspective, these results highlight the importance of adaptive financial management. Firms are encouraged to carefully balance their financing strategies, maintain efficient working capital cycles, and ensure sufficient liquidity without creating idle resources. More importantly, companies operating in import-dependent industries need to be more responsive to exchange rate movements by incorporating risk mitigation approaches, such as better financial planning and selective hedging practices. These steps can help firms remain stable even under volatile economic conditions. For future studies, expanding the model by including operational or macroeconomic variables and using different analytical approaches may provide a deeper understanding of how profitability is formed in dynamic business environments.

REFERENCES

Ardhana, R., & Setyawan, I. (2024). The effect of capital structure and financial flexibility on firm value in infrastructure companies. *Jurnal Keuangan dan Perbankan, 28*(1), 45–58.

Asqiah, N., Amang, B., & Mahmud, A. (2025). Pengaruh struktur modal dan likuiditas terhadap profitabilitas pada perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia. *Economics and Digital Business Review, 7*(1), 334–345. https://doi.org/10.37531/ecotal.v7i1.2995

Ayuningrum, N., & Saputra, F. W. (2024). *Manajemen keuangan: Teori & praktik*. PT Penamuda Media.

Bank Indonesia. (2023). *Laporan perekonomian Indonesia 2023*. Bank Indonesia.

Brealey, R. A., Myers, S. C., & Allen, F. (2011). *Principles of corporate finance* (10th ed.). McGraw-Hill/Irwin.

Brigham, E. F., & Ehrhardt, M. C. (2017). *Financial management: Theory and practice* (15th ed.). Cengage Learning.

Brigham, E. F., & Houston, J. F. (2018). *Fundamentals of financial management* (14th ed.). Cengage Learning.

Gill, A., Biger, N., & Mathur, N. (2010). The relationship between working capital management and profitability: Evidence from the United States. *Business and Economics Journal*, 2010(BEJ-10), 1–9.

Hasan, S., Elpisah, Sabtohadi, J., Nurwahidah, M., Abdullah, & Fachrurazi. (2022). *Manajemen keuangan*. CV. Pena Persada.

Van Horne, J. C., & Wachowicz, J. M. (2016). *Fundamentals of financial management* (13th ed.). Pearson.

International Monetary Fund. (2023). *World economic outlook: Navigating global divergences*. IMF Publications.

Kieso, D. E., Weygandt, J. J., & Warfield, T. D. (2020). *Intermediate accounting* (17th ed.). Wiley.

Krugman, P. R., & Obstfeld, M. (2018). *International economics: Theory and policy* (10th ed.). Pearson.

Mankiw, N. G. (2019). *Macroeconomics* (10th ed.). Worth Publishers.

Mayasari, D., Ningrum, E. P., Kalsum, U., Syahwildan, M., Mahdi, M., Wibowo, T. S., Abadi, S. P., Suhendar, Hakim, M. Z., & Adinugroho, I. (2022). *Manajemen keuangan*. Penerbit Adab.

Mendra, N. P. Y., Vidyasari, S. A. M. R., & Saitri, P. W. (2021). Pengaruh struktur modal, pertumbuhan penjualan, ukuran perusahaan, likuiditas, dan perputaran modal kerja terhadap profitabilitas. *Jurnal Kharisma, 3*(1).

Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: A correction. *The American Economic Review, 53*(3), 433–443.

Nuraini, F. D., & Suwaidi, R. A. (2022). Pengaruh leverage, likuiditas, dan ukuran perusahaan terhadap profitabilitas pada perusahaan textile dan garment yang go public di Bursa Efek Indonesia. *Jurnal Ilmu Manajemen, 11*(2), 157–166.

Penrose, E. T. (1959). *The theory of the growth of the firm*. Oxford University Press.

Prabowo, R., & Sutanto, A. (2019). Analisis pengaruh struktur modal dan likuiditas terhadap profitabilitas pada perusahaan sektor otomotif di Indonesia. *Jurnal Samudra Ekonomi dan Bisnis, 10*(1), 1–11.

Pradnyanita Sukmayanti, N. W., & Tri Nyoman. (2019). Pengaruh struktur modal, likuiditas, dan ukuran perusahaan terhadap profitabilitas pada perusahaan property dan real estate. *E-Jurnal Manajemen, 8*(1).

Prihadi, T. (2020). *Analisis laporan keuangan: Konsep dan aplikasi*. Gramedia Pustaka Utama.

Puspitasari, D. (2022). Pengaruh struktur modal terhadap profitabilitas perusahaan farmasi yang terdaftar di BEI. *Jurnal Akuntansi dan Keuangan, 14*(2), 123–135.

Rahmadhani, N. D. F., & Suwaidi, R. A. (2025). Pengaruh likuiditas, struktur modal, dan ukuran perusahaan terhadap profitabilitas pada perusahaan makanan dan minuman yang terdaftar di Bursa Efek Indonesia. *Management Studies and Entrepreneurship Journal (MSEJ), 6*(2), 825–840. https://doi.org/10.37385/msej.v6i2.7274

Rahmawati, S. (2022). Pengaruh ukuran perusahaan terhadap profitabilitas pada perusahaan manufaktur. *Jurnal Manajemen Indonesia, 11*(1), 45–57.

Sabakodi, M. Y., & Andreas, H. H. (2024). Pengaruh struktur modal terhadap profitabilitas perusahaan manufaktur tahun 2019–2022. *Owner: Riset dan Jurnal Akuntansi, 8*(1), 377–390. https://doi.org/10.33395/owner.v8i1.1934

Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2019). *Corporate finance* (12th ed.). McGraw-Hill Education.

Sukirno, S. (2020). *Mikroekonomi modern* (4th ed.). Rajawali Pers.

Van Horne, J. C., & Wachowicz, J. M. (2009). *Fundamentals of financial management* (13th ed.). Pearson Education.

Wijaya, F. (2021). Analisis pengaruh likuiditas terhadap profitabilitas perusahaan tekstil dan garmen di Indonesia. *Jurnal Ekonomi dan Bisnis, 8*(3), 201–212.

World Bank. (2021). *Global economic prospects 2021*. World Bank Publications.

Wulandari, V., & Sari, A. P. (2021). Struktur modal dan faktor-faktor penentunya pada perusahaan manufaktur di Indonesia. *Jurnal Keuangan dan Perbankan, 25*(1), 90–102.

Zuana, M. M. M., Toha, M., & Isbahi, M. B. (2024). Exploration of Community Empowerment in a Village as the Entrance to a Lake in East Java. *Malacca: Journal of Management and Business Development* , *1*(1), 47–55. https://doi.org/10.69965/malacca.v1i1.52