

Determinants of Profitability in the Consumer Non-Cyclicals Sector: The Moderating Effect of Firm Size on Financial Performance

Ravenska Kayla Cahyana^{1*}, Utami Puji Lestari²

^{1,2}Accounting, Semarang Institute of Technology and Business, Indonesia

ABSTRACT

This study examines how sales growth, operational cost efficiency, and working capital management affect profitability while considering firm size as a moderating variable and leverage as a control variable. The study employs a quantitative approach using panel data from 107 consumer non-cyclicals companies listed on the Indonesia Stock Exchange during 2022–2024, resulting in 321 firm-year observations. The data were analyzed using Moderated Regression Analysis (MRA) with the Fixed Effects Model (FEM). The results indicate that sales growth, operational cost efficiency, and working capital have positive and significant effects on profitability. Furthermore, firm size does not moderate the relationship between sales growth and profitability but strengthens the relationships between operational cost efficiency and profitability as well as working capital and profitability. In addition, leverage has a significant effect on profitability as a control variable. These findings highlight the importance of improving sales growth, operational cost efficiency, and working capital management while considering firm size and financing decisions to achieve sustainable profitability.

Keywords: Firm Size; Financial Performance; Profitability; Leverage.

Corresponding author: ravenskakaylacahyana4@gmail.com

How to cite this article: Cahyana, R. K., & Lestari, U. P. *Determinants of Profitability in the Consumer Non-Cyclicals Sector: The Moderating Effect of Firm Size on Financial Performance*. *Neraca Keuangan : Jurnal Ilmiah Akuntansi Dan Keuangan*. Retrieved from <https://ejournal.uika-bogor.ac.id/index.php/neraca/article/view/24173>

History of Article: Received: 22 June, 2026. Revision: 16 July 2026. Published: 12 August 2026.

DOI: <https://doi.org/10.32832/neraca.v21i2.24173>

INTRODUCTION

Maintaining profitability has become an important concern for firms amid increasing market competition and business uncertainty. A firm's ability to generate profits reflects its capacity to manage resources and sustain business performance over time. Profitability is widely used as an indicator of corporate financial performance because it provides an overview of the firm's ability to generate returns from its business activities (Muhani, et al. 2024). Profitability information also represents an important source of financial information for external stakeholders in assessing firm performance and future prospects. Based on Signalling Theory, managers use corporate information, including profitability performance, as a signal to communicate the firm's condition and prospects to external parties (Spence, 1973).

The consumer non-cyclicals sector represents an important segment of the economy as it provides essential goods that maintain relatively stable demand across different economic conditions. The sector is generally considered more resilient compared with cyclical industries because consumer demand for basic products tends to remain consistent despite economic fluctuations (Sastrasasmita & Imelda, 2023). However, stable demand does not necessarily guarantee superior profitability, as firms in this sector continue to face challenges related to operational management, competitive pressure, and the need to optimize internal resources to maintain financial performance (Wedari & Alfian, 2024).

The financial performance dynamics of consumer non-cyclicals companies in Indonesia during the post-pandemic period indicate that stable demand does not necessarily lead to consistent profitability performance. Several companies within this sector experienced fluctuations in profitability due to differences in revenue growth, operating expenses, and resource management strategies. According to the annual reports of PT Sumber Alfaria Trijaya Tbk, the company recorded an increase in net income from IDR 2.85 trillion in 2022 to approximately IDR 3.40 trillion in 2023, accompanied by revenue growth from IDR 96.92 trillion to IDR 106.94 trillion during the same period.

This performance reflects the company's ability to maintain business growth during the observed period; however, variations in profitability among firms suggest that internal financial factors may contribute to differences in profitability outcomes. Therefore, examining the factors influencing profitability in consumer non-cyclicals companies remains relevant, particularly in relation to sales growth, operational cost efficiency, working capital management, and firm characteristics.

Sales growth is considered an internal factor that may influence corporate profitability because it reflects a firm's ability to expand market demand and increase revenue generation. Sales growth indicates the firm's capability to strengthen its market position and improve business performance through increased sales activities (Riadani, et al. 2024). However, sales growth does not always result in higher profitability because business expansion may require additional operational costs and resources. Previous studies have reported inconsistent findings regarding this relationship. Ramadhani Siregar, et al. (2025) and Arika and Desy (2024) found that sales growth has a positive effect on profitability, whereas Winda, et al. (2025) found a negative effect. These inconsistent findings indicate that the relationship between sales growth and profitability remains inconclusive, particularly in consumer non-cyclicals companies.

Operational cost efficiency is an important internal factor that may influence profitability because it reflects a firm's ability to manage operating expenses in relation to its operating activities. Effective operational cost management enables firms to optimize resource utilization and maintain sustainable financial performance. Previous studies have shown that operational cost efficiency is associated with corporate profitability, although empirical findings remain inconsistent across different industries and research contexts. Ketut, et al. (2025), Daulay, et al. (2025), and Gisda and Bosowa (2025) found that operational cost efficiency affects profitability, while differences in the direction of the relationship indicate that the impact of operational costs may depend on the company's operational characteristics and strategic decisions. Therefore, further investigation is required to understand how operational cost efficiency influences profitability, particularly in consumer non-cyclicals companies.

Working capital management is another important factor that may affect profitability because it determines a firm's ability to support daily operations and maintain financial flexibility. Effective working capital management enables firms to balance short-term liquidity requirements and operational activities, which may contribute to improved profitability. However, excessive investment in working capital may increase holding costs and reduce the efficiency of resource utilization. Previous studies have reported inconsistent findings regarding the relationship between working capital and profitability. Sagiratun, et al. (2024) and Tyas & Rudy (2025) found a positive relationship between working capital and profitability, while Mariyam & Kusmawati (2025) and Septianto, et al. (2022) reported a negative relationship. These differences indicate that the effect of working capital management on profitability remains inconclusive and requires further investigation, particularly in consumer non-cyclicals companies.

In addition to operational factors, profitability may also be influenced by financial structure. Leverage reflects firms' financing decisions and the extent to which debt is utilized to support business activities. Although debt financing may provide resources for expansion, excessive leverage may increase financial obligations and financial risk, which can affect profitability (Nur, et al. 2024). Previous studies also indicate that leverage contributes to explaining variations in corporate profitability because differences in capital structure decisions may lead to different financial outcomes (Widjanarko, 2026). Therefore, controlling for leverage enables this study to provide a more comprehensive assessment of how operational factors influence profitability.

Firm size is incorporated as a moderating variable because differences in organizational scale may influence the extent to which internal factors affect profitability. Larger firms generally possess greater resources, stronger market access, and better operational capabilities, which may enhance their ability to convert sales growth, cost management, and working capital strategies into improved profitability. However, smaller firms may face greater resource limitations and operational constraints, causing differences in the effectiveness of financial strategies. Previous studies have shown that firm size can strengthen the relationship between financial factors and profitability by influencing firms' capacity to manage resources and respond to business conditions (Rizky Ramadhani, et al. 2025). Therefore, examining firm size as a moderating variable provides a broader understanding of how firm characteristics shape the relationship between internal factors and profitability.

Although previous studies have examined various determinants of profitability, empirical evidence regarding the effects of sales growth, operational cost efficiency, and working capital remains inconclusive. Furthermore, limited attention has been given to how firm characteristics influence the relationship between internal financial factors and profitability. Therefore, this study extends previous literature by examining firm size as a moderating mechanism and incorporating leverage as a control variable in explaining profitability among consumer non-cyclicals companies listed on the Indonesia Stock Exchange during 2022–2024. This study also provides empirical evidence through panel data analysis to obtain a more comprehensive understanding of profitability determinants. From a practical perspective, the findings provide insights for managers and investors regarding the importance of financial decisions and organizational characteristics in sustaining corporate profitability.

Based on the identified research gaps, this study aims to examine the effects of sales growth, operational cost efficiency, and working capital on profitability, while assessing the moderating role of firm size and controlling for leverage. By employing empirical evidence from consumer non-cyclicals companies listed on the Indonesia Stock Exchange during the 2022–2024 period, this study provides a contextual understanding of profitability determinants in a sector characterized by relatively stable demand and dynamic competition. The findings are expected to contribute to the development of corporate finance literature by providing further evidence regarding the role of firm characteristics in explaining variations in profitability. Furthermore, this study may provide practical insights for corporate managers and investors in evaluating financial strategies, resource allocation decisions, and factors that influence sustainable profitability.

THEORETICAL BASIS AND HYPOTHESIS DEVELOPMENT

Signaling Theory

Signaling theory introduced by Michael Spence in 1973 explains a mechanism in which parties with more information convey credible signals to other parties in order to support decision-making processes (Spence, 1973). The theory emphasizes signal quality, signaling cost, and information credibility as key elements (Connelly, et al. 2011). Companies use financial statements as signals to external parties regarding their financial performance and prospects. Strong financial performance is interpreted as a positive signal, while weak performance is interpreted as a negative signal. Financial indicators such as sales growth, operational efficiency, and working capital management provide information regarding firm conditions that may be considered by external stakeholders in evaluating company performance (Cahyani and Rahayu, 2021).

Profitability

Profitability refers to a firm's ability to generate profit from its operational activities within a certain period (Hery, 2023; Kasmir, 2019). Profitability reflects the effectiveness of management in utilizing corporate resources, including assets, sales, and capital, to generate earnings (Sartono, 2010). As a key indicator of financial performance, profitability represents the outcome of managerial decisions in implementing corporate strategies (Brigham & Houston, 2021). Previous studies indicate that profitability is associated with various internal factors, including sales growth, operational efficiency, and working capital management (Daulay and Fitra, 2025; Nabila and Prawitasari, 2025; Sormin, et al. 2023).

Sales Growth

Defined as the percentage variation in sales, sales growth is utilized to evaluate a company's developmental trajectory over time (Harahap, 2021). According to Kasmir (Kasmir, 2019), it reflects an organization's capability to scale its market presence through strategic marketing efforts. Beyond its role in measuring past performance, sales growth is a vital signifier of a firm's potential to generate sustainable revenue and achieve long-term profit appreciation.

Operational Cost Efficiency

Operational cost efficiency refers to a firm's ability to manage operational expenditures in relation to its operating activities to achieve effective resource utilization. This concept reflects managerial capability in controlling operational costs while maintaining business activities and financial performance. An efficient cost structure enables firms to allocate resources more effectively and

maintain profitability by reducing unnecessary operational burdens. However, differences in operational cost structures among firms may result in variations in profitability outcomes. Previous studies have examined the relationship between operational cost efficiency and profitability, although empirical findings remain inconsistent across different research contexts.

Working Capital

Working capital is defined as the funds used by a company to finance its daily operational activities, including raw material purchases, wage payments, and other operating expenses. Working capital is also associated with investment in current assets such as cash, receivables, and inventories that support the continuity of business operations (Kasmir, 2019). Working capital is also defined in previous studies as an important component related to short-term financial management that reflects the company's ability to manage current assets and current liabilities to maintain operational continuity (Nurfitri, et al. 2025; Sormin, et al. 2023). Effective working capital management indicates the company's capability to maintain operational stability and support financial performance (Dianti, et al. 2024).

Leverage

Leverage represents the proportion of debt utilized by a firm to finance operational activities and business expansion. The level of leverage reflects corporate financing decisions that may influence profitability through changes in financial obligations and risk exposure. Debt financing can provide additional resources to support business activities; however, excessive dependence on debt may increase financial costs and financial risk, potentially affecting corporate performance. In this study, leverage is incorporated as a control variable to account for differences in firms' capital structures that may influence profitability outcomes. Controlling for leverage provides a more comprehensive evaluation of the effects of sales growth, operational cost efficiency, and working capital on profitability (Brigham & Houston, 2021).

Hypothesis Development

The Impact of Sales Growth on Profitability

Sales growth represents an increase in a company's economic activities derived from marketing and product distribution, which directly expands total revenue. Grounded in signaling theory, a positive trend in sales volume conveyed through financial statements serves as a credible signal (good news) regarding operational capability and business expansion (Spence, 1973). Sustained growth in sales indicates that the company effectively maintains market demand and secures opportunities to optimize earnings. Furthermore, rising sales figures strengthen investor confidence toward future business prospects. Empirical evidence from Ramadhani Siregar, et al. (2025), Arika and Desy (2024), Daulay and Fitra (2025), and Runtuwene, et al. (2023) demonstrates that sales growth has a positive and significant effect on profitability. Based on this rationale, the following hypothesis is posited:

H₁: Sales growth has a positive effect on profitability.

The Impact of Operational Cost Efficiency on Profitability

Operational cost efficiency reflects the firm's ability to manage operational expenses effectively in supporting business activities. From the perspective of signaling theory, information regarding operational cost management provides signals to external stakeholders regarding managerial capability and resource utilization (Spence, 1973). Efficient operational cost management may indicate effective managerial decisions, whereas inefficient cost structures may reduce the firm's ability to generate profit. Previous empirical studies have reported that operational cost efficiency influences profitability, although the direction and magnitude of the relationship may vary depending on firm characteristics and industry conditions (Daulay & Fitra, 2025b; Irawan et al., 2025). Based on this theoretical and empirical consideration, the following hypothesis is proposed:

H₂: Operational cost efficiency has a positive effect on profitability.

The Impact of Working Capital on Profitability

Working capital represents the funds utilized by a company to finance its daily operational activities, ensuring that business processes run effectively. Grounded in signaling theory, information regarding adequate working capital conditions serves as a positive signal (good news) to external parties, reflecting operational stability and the capacity to balance current assets and current liabilities (Spence, 1973). Sufficient short-term funding accelerates the cash conversion cycle, maintains inventory turnover, and streamlines sales transactions, which ultimately drives higher revenue generation. Effective utilization of working capital directly enhances a company's capability to accumulate profit after deducting operational expenses. Empirical evidence from Sagiratun, et al. (2024), Nurfitri, et al. (2025), Shabihah and Rusdi (2025), and Tyas and Rudy (2025) demonstrates that working capital has a positive and significant effect on profitability. Based on this rationale, the following hypothesis is posited:

H₃: Working capital has a positive effect on profitability

The Moderating Role of Firm Size

Firm size represents the economic scale and operational capacity of an entity, reflecting its ability to manage resource infrastructure for long-term business sustainability. Grounded in signaling theory, disclosure regarding firm size in financial statements serves as an operational strength signal to external parties, indicating asset capacity, complex organizational structures, and business stability (Spence, 1973). Larger companies possess wider distribution networks, structured marketing systems, and economies of scale, allowing them to optimize any incremental sales growth into higher revenues more productively than smaller firms. Furthermore, large-scale entities maintain organized cost control systems and clear operational divisions, which optimizes the impact of operational cost efficiency on corporate earnings. Regarding short-term financial management, larger corporate scales provide superior asset support and robust financing access, enabling flexible working capital management to accelerate inventory turnover and cash conversion cycles. Empirical evidence from Shabihah and Rusdi (2025), Ramadhani, et al. (2025), and Dianti, et al. (2024). demonstrates that firm size successfully strengthens the respective relationships between sales growth, operational cost efficiency, working capital, and company profitability. A larger corporate scale enhances internal resource management, thereby amplifying the positive impacts of these operational variables on net earnings. Based on this theoretical and empirical framework, the following hypotheses are advanced:

H₄: Firm size strengthens the effect of sales growth on profitability.

H₅: Firm size strengthens the effect of operational cost efficiency on profitability.

H₆: Firm size strengthens the effect of working capital on profitability.

Following the formulation of these hypotheses, the schematic representation of the research framework is illustrated in Figure 1

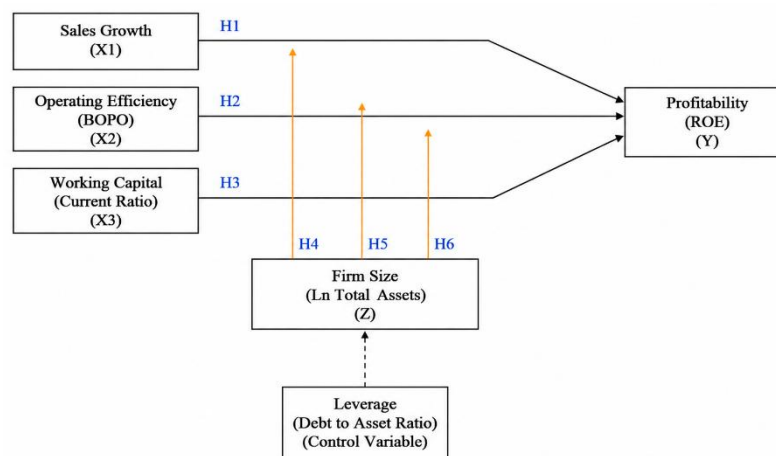


Figure 1
 Conceptual Framework

RESEARCH METHODS

Employing a quantitative methodology under a causal research design, this study investigates the effects of sales growth, operational cost efficiency, and working capital on profitability. Firm size is incorporated as a moderating variable to examine whether organizational scale influences these relationships, while leverage is included as a control variable to account for differences in firms' capital structure. Secondary panel data were collected through documentation techniques, encompassing audited annual financial reports of consumer non-cyclical sector companies listed on the Indonesia Stock Exchange (IDX). The observation period covers 2022–2024, representing the post-pandemic economic recovery period during which companies operated under relatively stable economic conditions. This period was selected because it provides complete and consistent financial statement data across all sampled firms, enabling the construction of a balanced panel dataset and minimizing missing observations that could affect the estimation results. The initial population comprises 132 consumer non-cyclical sector firms registered on the Indonesia Stock Exchange during the 2022–2024 observation period. Purposive sampling was employed to select companies according to specific criteria consistent with the research objectives. The detailed outcomes of this systematic filtering procedure are presented in Table 1.

Table 1
Sample Selection Criteria

No	Sample Selection Criteria	Total
1	Consumer non-cyclical sector companies listed on The Indonesia stock exchange (IDX) during the 2022-2024 period	132
2	Companies experiencing delisting during the 2022-2024 period	-1
3	Companies not publishing complete annual financial reports during the 2022-2024 period	-24
Total number of companies included in the sample		107
Total number of observation (10 x 3)		321

Source: Research Data, 2026

The sample selection criteria yielded 107 companies as the final sample, resulting in 321 firm-year observations across the 2022–2024 period. This balanced panel dataset provides consistent information across both cross-sectional and time-series dimensions, thereby improving the reliability of the estimation results. Panel data regression was employed to examine the effects of sales growth, operational cost efficiency, and working capital on profitability, while assessing the moderating role of firm size and controlling for leverage. The most appropriate estimation model was determined through the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test. The test results indicated that the Fixed Effect Model (FEM) was the most appropriate estimation model for the panel data used in this study.

Operational Definition and Measurement of Variables

Dependent Variable: Profitability

Profitability serves as the dependent variable (Y) in this study and reflects a firm's ability to generate earnings from shareholders' investments. This study measures profitability using Return on Equity (ROE) because it indicates management's effectiveness in utilizing shareholders' equity to generate net income. Consistent with Brigham & Houston (2021) and Kasmir (2019), ROE is calculated as follows:

$$\text{ROE} = \frac{\text{Net Profit After Tax}}{\text{Total Equity}}$$

Independent Variables

Sales growth (X_1) represents a firm's ability to increase sales over a specific period and reflects business expansion through increased market demand and revenue generation. Following Brigham & Houston (2021), sales growth is measured using the annual percentage change in sales:

$$\text{Sales Growth} = \frac{\text{Sales}_t - \text{Sales}_{t-1}}{\text{Sales}_{t-1}}$$

Operational cost efficiency (X_2) reflects a firm's ability to manage operational expenditures in supporting business activities. This variable is measured using the Operating Expenses to Operating Revenues ratio (BOPO), which compares operational expenses with operational revenues. Following Fahmi (2016), the formula is:

$$\text{BOPO} = \frac{\text{Total Operating Expenses}}{\text{Total Operating Revenues}}$$

Working capital (X_3) represents a firm's short-term financial capacity to support operational activities and meet current obligations. This study uses the Current Ratio (CR) as the proxy for working capital because it reflects the firm's ability to meet short-term liabilities using current assets. Consistent with Kasmir (2019), the formula is:

$$\text{CR} = \frac{\text{Total Current Assets}}{\text{Total Current Liabilities}}$$

Moderating Variable: Firm Size

Firm size (Z) serves as the moderating variable in this study and represents the economic scale of a company based on its total assets. Firm size is measured using the natural logarithm of total assets [$\ln(\text{Total Assets})$], a proxy that is widely adopted in corporate finance literature to standardize firm size and reduce data dispersion while preserving proportional differences across firms (Brigham & Houston, 2021).

$$\text{Firm Size} = \ln(\text{Total Assets})$$

Control Variable: Leverage

Leverage (C) is incorporated as a control variable to account for differences in firms' capital structures that may influence profitability. This study measures leverage using the Debt to Asset Ratio (DAR), which indicates the proportion of total assets financed through debt. Following Brigham and Houston (2021), the formula is:

$$\text{DAR} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

Data analysis was conducted using panel data regression with EViews 12 software. The analysis began with descriptive statistics to summarize the characteristics and distribution of the data. Model selection tests, including the Chow Test, Hausman Test, and Lagrange Multiplier (LM) Test, were performed to determine the most appropriate estimation model among the Common Effect Model (CEM), Fixed Effect Model (FEM), and Random Effect Model (REM) (Gujarati, et al. 2012). The selected model was subsequently used to estimate the relationships among the study variables. Prior to hypothesis testing, classical assumption tests comprising normality, multicollinearity, heteroskedasticity, and autocorrelation tests were conducted to evaluate the adequacy of the regression model. The coefficient of determination (R^2) was used to assess the explanatory power of the model, while the t-test was employed to examine the individual effects of the independent variables, the moderating role of firm size, and the control effect of leverage on profitability.

RESULT AND DISCUSSION

Descriptive Statistical Analysis

Descriptive statistical analysis is utilized to provide a comprehensive overview regarding the distributional characteristics of the data for all variables examined throughout the observation period. This analysis encompasses the mean, median, maximum, minimum, and standard deviation values derived from 321 firm-year observations. A summary of the panel data processing results generated via EViews version 12 software is presented in Table 2.

Table 2
Descriptive Statistical Summary

	Y	X1	X2	X3	Z	DAR
Mean	0.007306	0.109362	0.172565	2.743037	23.06060	0.470878
Median	0.080669	0.050903	0.130371	1.709681	25.67338	0.461903
Maximum	11.05511	6.489370	1.716809	25.17116	31.02314	2.641679
Minimum	-19.47237	-1.967868	0.008649	0.085175	14.31360	0.022061
Std. Dev	1.396905	0.543998	0.166340	3.321066	5.351577	0.308832
Skewness	-7.528785	6.806681	4.211157	3.398684	-0.345997	2.569341
Kurtosis	134.5340	72.71689	33.01898	17.26577	1.475307	16.97581
Jarque-Bera	234436.1	67487.15	13001.50	3339.956	37.49739	2965.631
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	2.345176	35.10523	55.39345	880.5149	7402.452	151.1520
Sum Sq. Dev	624.4298	94.69871	8.854077	3529.434	9194.601	30.52062
Observations	321	321	321	321	321	321

Source: EViews 12, 2026

Descriptive statistics provide an overview of the characteristics of the research variables based on 321 firm-year observations during the 2022–2024 period (Hair et al., 2022). Profitability (Y) has a mean value of 0.007306, with observations ranging from –19.47237 to 11.05511, indicating substantial variation across firms. Sales Growth (X₁) records a mean of 0.109362, while Operational Cost Efficiency (X₂), measured by BOPO, has a mean of 0.172565. Working Capital (X₃), proxied by the Current Ratio (CR), reports a mean value of 2.743037. Firm Size (Z), measured by the natural logarithm of total assets, has a mean of 23.06060, whereas Leverage, measured by the Debt-to-Asset Ratio (DAR), records a mean value of 0.470878. Overall, the descriptive statistics indicate variation in the characteristics of the sampled firms during the observation period.

Table 3
Results of Panel Data Model Specification Tests

Test	Result	Selected Model
Uji Chow (CEM vs FEM)	Prob. 0.0000 < 0,05	FEM
Uji Hausman (FEM vs REM)	Prob. 0.0000 < 0,05	FEM
Uji LM (CEM vs REM)	Prob. 0.0011 < 0,05	REM

Source: EViews 12, 2026

Model specification tests were conducted to determine the most appropriate panel data estimation model. The Chow test produced a probability value of 0.0000 (< 0.05), indicating that the Fixed Effect Model (FEM) was preferred over the Common Effect Model (CEM). Furthermore, the Hausman test yielded a probability value of 0.0000 (< 0.05), indicating that the Fixed Effect Model (FEM) was more appropriate than the Random Effect Model (REM). Although the Lagrange Multiplier (LM) test produced a probability value of 0.0011 (< 0.05), indicating that the Random Effect Model (REM) was preferred over the Common Effect Model (CEM), the final model selection was based on the Chow and Hausman tests, which identified the Fixed Effect Model (FEM) as the most appropriate estimation model for this study (Baltagi, 2021; Gujarati, et al. 2012).

Classical Assumption Test

Normality Test

The Jarque–Bera test produced a probability value of 0.0000, indicating that the residuals are not normally distributed. However, this result does not invalidate the regression model because normality is not a strict assumption for obtaining consistent parameter estimates in panel data regression, particularly when the sample size is sufficiently large. With 321 firm-year observations, the Central Limit Theorem suggests that the sampling distribution of the estimators approaches normality, allowing statistical

inference to remain valid. Therefore, the non-normality of the residuals does not affect the feasibility of the Fixed Effect Model (FEM) employed in this study (Gujarati et al., 2012; Wooldridge, 2019)

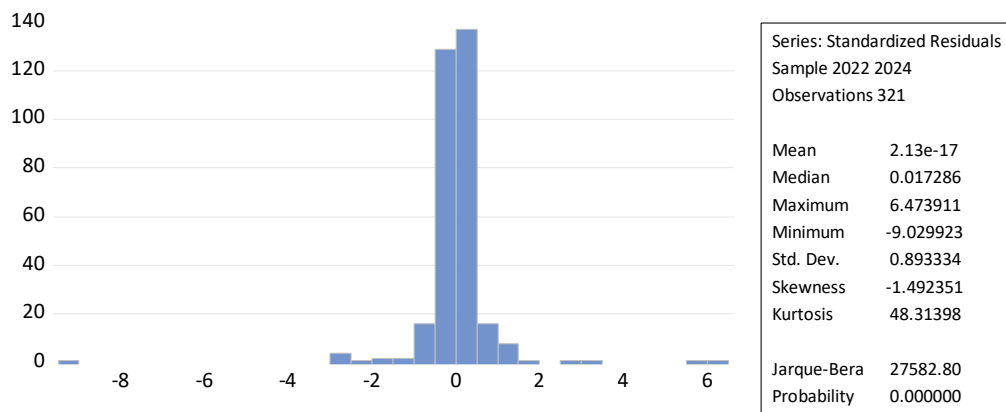


Figure 2

Normality Test Result

Source: EViews 12, 2026

Multicollinearity Test

The statistical results show that the correlation between Sales Growth (X_1) and Operational Cost Efficiency (X_2) is -0.116154 , between Sales Growth (X_1) and Working Capital (X_3) is 0.021425 , between Sales Growth (X_1) and Leverage (DAR) is -0.160333 , between Operational Cost Efficiency (X_2) and Working Capital (X_3) is 0.214952 , between Operational Cost Efficiency (X_2) and Leverage (DAR) is -0.108128 , and between Working Capital (X_3) and Leverage (DAR) is -0.531932 . Since all correlation coefficients are below the recommended threshold value of 0.90, the regression model is considered free from serious multicollinearity problems (Hair et al., 2022; Tabachnick & Fidell, 2018).

Table 4
Multicollinearity Test Result

	X1	X2	X3	DAR
X1 (Sales Growth)	1.000000	-0.116154	0.021425	-0.160333
X2 (BOPO)	-0.116154	1.000000	0.214952	-0.108128
X3 (CR)	0.021425	0.0214952	1.000000	-0.531932
DAR	-0.160333	-0.108128	-0.531932	1.000000

Source: EViews 12, 2026

Heteroscedasticity Test

The Glejser heteroskedasticity test indicates that the probability values of Sales Growth (X_1), Operational Cost Efficiency (X_2), Working Capital (X_3), and Leverage (DAR) are 0.2334, 0.3975, 0.0689, and 0.0617, respectively. Since all probability values exceed the 0.05 significance level, the estimated model does not provide evidence of heteroskedasticity. Furthermore, the panel regression was estimated using the Fixed Effect Model (FEM) with White Period (Cross-section Cluster) robust standard errors. The application of this covariance estimator is recommended in panel data analysis because it produces heteroskedasticity-consistent standard errors and remains valid in the presence of within-panel error correlation, thereby improving the reliability of statistical inference without altering the estimated regression coefficients (Baltagi, 2021; Greene, 2018; Wooldridge, 2019).

Table 5
Heteroscedasticity Test Result

Dependent Variable: ABSRES
Method: Panel Least Squares
Date: 07/13/26 Time: 09:26
Sample: 2022 2024
Periods included: 3
Cross-sections included: 107
Total panel (balanced) observations: 321
White period (cross-section cluster) standard errors & covariance (d.f. corrected)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.298428	0.460239	-0.648419	0.5181
X1	0.071482	0.059649	1.198362	0.2334
X2	-0.864595	1.017736	-0.849528	0.3975
X3	0.033774	0.018380	1.837516	0.0689
DAR	1.555952	0.824005	1.888280	0.0617

Source: EViews 12, 2026

Autocorrelation Test

The Durbin–Watson test produced a statistic value of 3.413874. According to (Gujarati, et al. 2012), the Durbin–Watson statistic ranges from 0 to 4, where a value close to 2 indicates the absence of first-order autocorrelation, values below 2 indicate positive autocorrelation, and values above 2 indicate negative autocorrelation. Accordingly, the obtained statistic indicates a tendency toward negative autocorrelation in the regression residuals. However, the presence of negative autocorrelation does not necessarily invalidate the estimated regression model, as the appropriateness of the model is primarily determined by the estimation method, the underlying regression assumptions, and the consistency of the parameter estimates (Greene, 2018; Wooldridge, 2019).

Table 6
Autocorrelation Test Results

Durbin Watson Stat	3.413874
---------------------------	-----------------

Source: EViews 12, 2026

Hypothesis Testing T-test

Table 7
Hypothesis Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.878067	0.134355	-21.42142	0.0000
X1	0.059528	0.019428	3.064013	0.0025
X2	-0.333307	0.143334	-2.325385	0.0210
X3	0.076978	0.006492	11.85669	0.0000
DAR	5.787539	0.262696	22.03135	0.0000
R-squared	0.857475	Mean dependent var		0.772973
Adjusted R-squared	0.782819	S.D. dependent var		2.416241
S.E. of regression	1.004746	Sum squared resid		211.9978
F-statistic	11.48567	Durbin-Watson stat		2.599045
Prob(F-statistic)	0.000000			

Source: EViews 12, 2026

Based on the partial significance test (t-test) presented in Table 1, the empirical results and analysis for each research hypothesis are detailed below:

1. Effect of Sales Growth on Profitability

The t-test results for Sales Growth (X_1) show a t-statistic of 3.064013 and a probability value of 0.0025 (< 0.05). Therefore, **H1 is accepted**, indicating that Sales Growth has a positive and significant effect on profitability. The positive coefficient of 0.059528 suggests that firms experiencing higher sales growth tend to achieve higher profitability. This finding indicates that revenue expansion contributes to improved financial performance through increased market penetration, more efficient utilization of production capacity, and higher operating income.

2. Effect of Operational Cost Efficiency on Profitability

The t-test results for Operational Cost Efficiency (X_2) show a t-statistic of -2.325385 and a probability value of 0.0210 (< 0.05). Therefore, **H2 is accepted**, indicating that Operational Cost Efficiency has a positive and significant effect on profitability. In this study, operational cost efficiency is proxied by the BOPO ratio. The negative regression coefficient indicates that the more efficiently a firm manages its operating costs, the higher its profitability tends to be. This finding suggests that effective cost control enables firms to allocate resources more efficiently, improve net earnings, and strengthen overall financial performance.

3. Effect of Working Capital on Profitability

The t-test results for Working Capital (X_3) show a t-statistic of 11.85669 and a probability value of 0.0000 (< 0.05). Therefore, **H3 is accepted**, indicating that Working Capital has a positive and significant effect on profitability. The positive coefficient of 0.076978 indicates that an increase in working capital is associated with higher profitability. This finding suggests that adequate working capital enables firms to finance day-to-day operations, maintain liquidity, fulfill short-term obligations, and support business activities effectively. Consequently, sufficient working capital contributes to smoother operational activities and improved corporate profitability.

Coefficients of Determination (R^2)

The regression model produces a robust R^2 value of 0.857475, indicating that Sales Growth (X_1), Operational Cost Efficiency (BOPO) (X_2), and Current Ratio (X_3), and the control variable Leverage (DAR) jointly explain 85.75% of the variation in corporate profitability. The remaining 14.25% is explained by other factors outside the scope of this study. After adjusting for the degrees of freedom, the Adjusted R^2 value is 0.782819, demonstrating that the independent and control variables successfully account for 78.28% of the variation in profitability.

The high Adjusted R^2 value indicates that the proposed model possesses exceptional explanatory power in determining corporate profitability within the retail sector. This substantial percentage proves that the combination of operational growth, cost efficiency control, working capital management, and financial leverage provides a comprehensive framework for capturing profit dynamics. Factors representing the remaining 14.25% variation might include external variables such as macroeconomic conditions, market competition intensity, or corporate governance mechanisms that were not incorporated into this framework. Given the strong statistical significance of the estimated regression coefficients alongside this high explanatory capability, the model serves as a highly reliable basis for empirical generalization.

Moderated Regression Analysis (MRA)

The Moderated Regression Analysis (MRA) results indicate that the moderating effect of Firm Size varies across the examined relationships. The interaction between Sales Growth and Firm Size (X_1Z) is statistically insignificant ($p = 0.9247$), indicating that Firm Size does not moderate the relationship between Sales Growth and profitability. In contrast, the interaction between Operational Cost Efficiency and Firm Size (X_2Z) is statistically significant ($p = 0.0001 < 0.001$) with a negative coefficient of -0.478495, indicating that Firm Size significantly strengthens the impact of Operational Cost Efficiency on profitability (driving massive efficiency returns via economies of scale). The interaction between Working Capital and Firm Size (X_3Z) is also highly significant ($p = 0.0000 < 0.001$) with a positive coefficient of 0.009508, confirming that Firm Size strengthens the positive effect of Working Capital on profitability.

Table 8
MRA Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	17.99739	2.406220	7.479529	0.0000
X1	0.096697	0.313037	0.308900	0.7577
X2	11.88147	2.907160	4.086968	0.0001
X3	-0.092368	0.034660	-2.664932	0.0083
Z	-0.939312	0.104036	-9.028758	0.0000
X1Z	0.001104	0.011666	0.094674	0.9247
X2Z	-0.478495	0.117492	-4.072558	0.0001
X3Z	0.009508	0.001478	6.432283	0.0000
DAR	6.789167	0.169399	40.07797	0.0000
R-squared	0.993085	Mean dependent var		1.043613
Adjusted R-squared	0.989259	S.D. dependent var		10.31161
S.E. of regression	0.982058	Sum squared resid		198.6743
F-statistic	259.5230	Durbin-Watson stat		2.491332
Prob(F-statistic)	0.000000			

Source: EViews 12, 2026

Based on the Moderated Regression Analysis (MRA) results in Table 8, the linear equation is formulated as follows:

$$\text{ROE} = 17.99739 + 0.096697X1 + 11.88147X2 - 0.092368X3 - 0.939312Z + 0.001104X1Z - 0.478495X2Z + 0.009508X3Z + 6.789167\text{DAR}$$

To facilitate the interpretation of these moderating effects, the interaction between Firm Size and each independent variable is presented through interaction plots in Figures 3–5. These visualizations complement the statistical results by illustrating how Firm Size modifies the functional relationship among the examined variables.

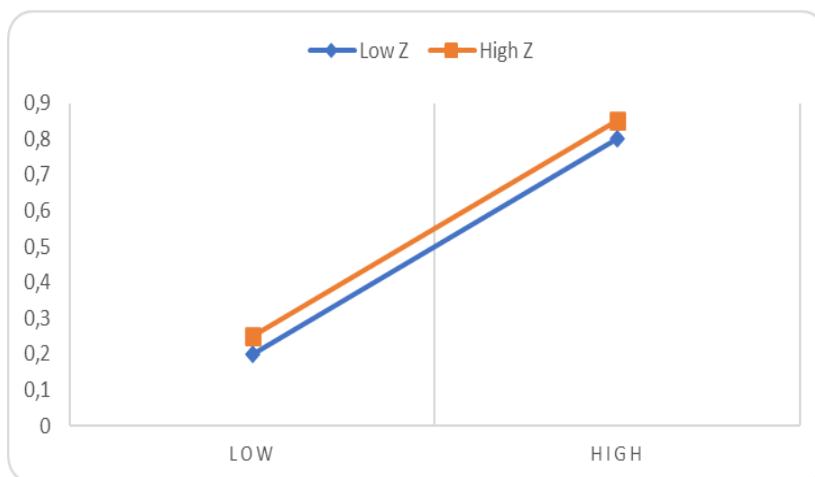


Figure 3

Interaction Effect of Firm Size on the Relationship between Sales Growth and Profitability

Source: Based on MRA results, 2026

Figure 3 illustrates that the slopes representing small firms (Low Z) and large firms (High Z) are nearly parallel, indicating that Firm Size does not substantially alter the relationship between Sales Growth and profitability. This visual pattern is highly consistent with the insignificant interaction coefficient obtained from the MRA results ($p = 0.9247$), confirming that the influence of Sales Growth on profitability remains uniform regardless of the entity's asset scale. The findings suggest that while revenue expansion effectively drives higher profitability, its impact is structurally stable and independent of organizational scale.

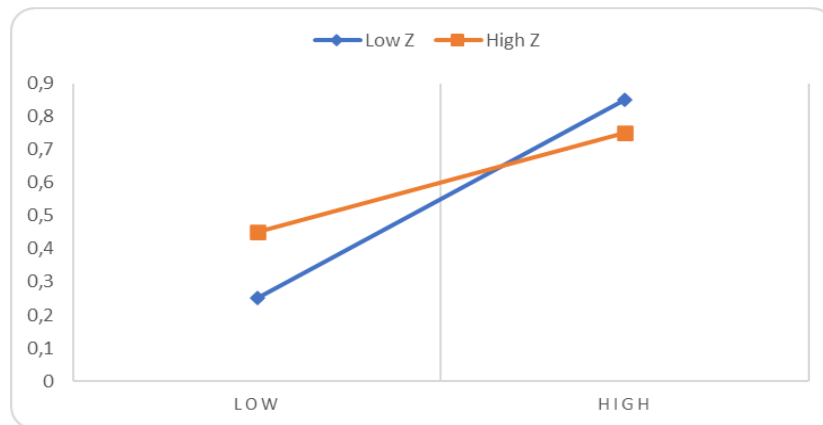


Figure 4
 Interaction Effect of Firm Size on the Relationship between BOPO and Profitability
 Source: Based on MRA results, 2026

Figure 4 demonstrates an interaction pattern consistent with the negative coefficient of -0.478495 ($p = 0.0001$). The visualization reveals that the slope representing small firms (Low Z) is substantially steeper than that of large firms (High Z). This pattern indicates that Firm Size significantly moderates the relationship by weakening the impact of Operational Cost Efficiency on profitability as the organizational scale increases. Consequently, enhancements in operational cost efficiency yield a far more pronounced and massive surge in profitability for smaller enterprises, whereas the effect becomes less intense in larger firms due to operational complexity and rigid fixed cost structures.

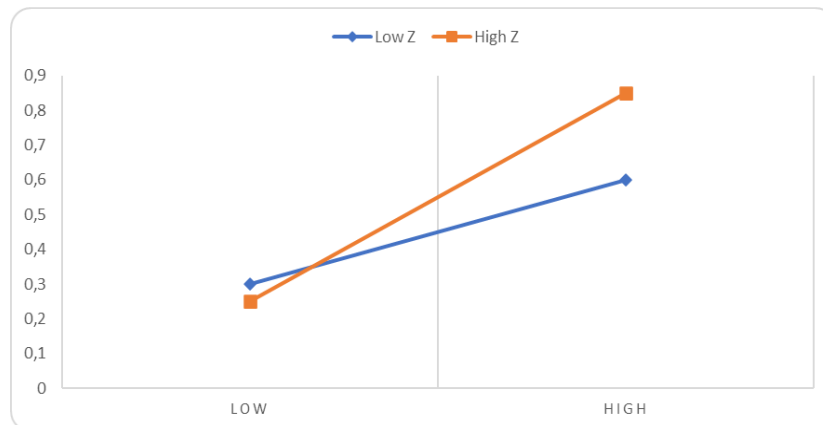


Figure 5
 Interaction Effect of Firm Size on the Relationship between Current Ratio and Profitability
 Source: Based on MRA results, 2026

Figure 3 depicts that the slope representing large firms (High Z) is substantially steeper and rises more sharply than that of small firms (Low Z). This visual pattern strongly supports the positive interaction coefficient of 0.009508 ($p = 0.0000$) obtained from the MRA model. The result indicates that Firm Size significantly moderates the relationship by strengthening the positive effect of Working Capital on profitability. As working capital management optimizes from low to high levels, larger corporations can deploy these liquid buffers far more effectively to capture massive profitability growth, heavily driven by their superior structural capabilities, broader financing access, and enhanced supply chain efficiencies.

Discussion

The Effect of Sales Growth on Profitability

The findings indicate that sales growth has a positive and significant effect on profitability, thereby supporting the first hypothesis. This result suggests that firms capable of sustaining consistent

sales growth tend to achieve higher levels of profitability (Setiawan & Sha, 2022). Increased sales generate additional revenue, enabling firms to improve production capacity utilization, expand sales volume, and distribute fixed costs over a larger output, thereby reducing unit costs and enhancing corporate earnings (Anokhin, et al. 2026). Furthermore, sales growth improves asset turnover, strengthens operating cash flows, and provides greater opportunities for firms to reinvest in productive activities that support business expansion and long-term profitability (Sari & Harahap, 2022; Sofian Suriawinata, et al. 2023). In the consumer non-cyclicals sector, where demand remains relatively stable due to the essential nature of its products, sales growth also reflects a firm's ability to maintain customer loyalty, expand market share, and respond effectively to changing consumer preferences through marketing strategies and product innovation (Lin & Bowman, 2022). These capabilities enable firms to sustain revenue growth, strengthen their competitive position, and achieve more sustainable profitability (Sastrasmita & Imelda, 2023).

The positive relationship between sales growth and profitability indicates that sales expansion not only reflects increased revenue generation but also demonstrates a firm's capability to effectively manage and utilize its strategic resources to create value (Piao & Choi, 2022a). From the perspective of the Resource-Based View (RBV), sustainable competitive advantage is achieved through the effective utilization of valuable organizational resources, including marketing capabilities, product innovation, distribution networks, brand reputation, and customer relationships, which collectively enable firms to sustain sales growth while improving profitability (Wernerfelt, 1984). Moreover, Dynamic Capability Theory argues that a firm's ability to integrate, develop, and reconfigure its resources in response to changes in the business environment enables it to adapt more effectively to market dynamics, thereby transforming sales growth into sustainable profit generation (Forliano, et al. 2022). From the perspective of Signaling Theory (Spence, 1973), consistent sales growth also serves as a positive signal of a firm's future prospects, reflecting management's capability to sustain market demand, implement effective business strategies, and generate stable financial performance, which ultimately enhances investor confidence.

The findings of this study are consistent with those of Rizky Ramadhani Siregar, et al. (2025), who reported that sales growth contributes positively to profitability through increased corporate revenue. Similar evidence was presented by Arika & Desy (2024), who found that firms experiencing higher sales growth tend to achieve superior profitability because they are more capable of expanding market share and improving operational performance. Furthermore, Handayani (2023) argued that the positive impact of sales growth on profitability becomes stronger when firms are able to effectively control operational costs during business expansion. Empirical evidence from international studies further suggests that firms combining sales growth with innovation, efficient resource management, and operational efficiency generally achieve higher profitability than firms focusing solely on revenue expansion. The inclusion of leverage as a control variable further demonstrates the robustness of the findings. The positive relationship between sales growth and profitability remains significant after controlling for firms' financing decisions, indicating that sales growth contributes to profitability beyond the influence of capital structure.

The findings provide several practical and theoretical implications (Hocky & Wijaya, 2024). From a managerial perspective, firms should not merely pursue higher sales volumes but also ensure that sales growth is supported by appropriate marketing strategies, continuous product innovation, effective resource allocation, and efficient operational cost management so that additional revenue can be translated into sustainable profits (Forliano, et al. 2022). For investors, sales growth may serve as an important indicator when evaluating a firm's future prospects; however, investment decisions should also consider the firm's ability to maintain operational efficiency, optimize strategic resources, and consistently generate profitability (Connelly et al., 2011). From a theoretical perspective, the findings extend the understanding of the relationship between sales growth and profitability by demonstrating that this relationship is explained not only by Signaling Theory, but also by the Resource-Based View and Dynamic Capability Theory, both of which emphasize the importance of strategic resource management and organizational adaptability in creating sustainable competitive advantage and long-term profitability (Ferreira et al., 2022).

The Effect of Operational Cost Efficiency on Profitability

The findings indicate that operational cost efficiency has a positive and significant effect on profitability, thereby supporting the second hypothesis. These results suggest that the more efficiently a company manages its operating costs, the higher the level of profitability it can achieve (Melvina & Ekadjaja, 2023). Effective operational cost management enables firms to optimize the utilization of available resources, thereby minimizing operating expenses without compromising the effectiveness of business activities (Forliano et al., 2022). Consequently, companies are better positioned to maintain higher profit margins, strengthen operating cash flows, and allocate resources to value-creating activities, such as product innovation, digital transformation, distribution network expansion, and service quality improvement (Ardito, 2023). As a result, operational cost efficiency not only enhances short-term profitability but also strengthens a firm's competitive advantage and supports long-term financial sustainability (Nurmalasari & Carmelita, 2025).

These findings demonstrate that a firm's ability to control operating costs represents an important internal capability that contributes to value creation (Sastrasasmita & Imelda, 2023). From the perspective of the Resource-Based View (RBV), efficient operational cost management constitutes a source of sustainable competitive advantage because it enables firms to generate greater economic value through the optimal utilization of strategic resources (Wernerfelt, 1984). Furthermore, Dynamic Capability Theory argues that a firm's ability to continuously adapt operational processes, adopt new technologies, and improve organizational routines enables it to maintain operational efficiency in an increasingly dynamic business environment, thereby fostering sustainable profitability (Teece, 2025). From the perspective of Signaling Theory Spence (1973), greater operational efficiency sends a positive signal regarding managerial competence and the firm's ability to generate sustainable earnings, thereby enhancing investor confidence in the company's future performance and growth prospects.

The present study is consistent with the results reported by Daulay & Fitra (2025), who argued that operational cost efficiency plays a significant role in improving profitability through effective control of operating expenses. A similar conclusion was reached by Ketut, et al. (2025), who demonstrated that firms with higher levels of operational efficiency generally achieve superior financial performance. Likewise, recent international evidence suggests that companies capable of optimizing operational cost management through technological innovation, business process improvement, and the development of organizational capabilities are more likely to enhance profitability while sustaining long-term competitive advantages (Ferreira, et al. 2022). Taken together, these studies indicate that operational cost efficiency constitutes a fundamental driver of profitability, as it enables firms to maximize the economic value generated from available resources without proportionally increasing operating costs. The significant effect of operational cost efficiency on profitability also remains robust after controlling for leverage, suggesting that the ability to generate higher profitability through operational efficiency is not merely driven by differences in firms' financing structures.

The findings of this study offer several practical and theoretical implications. From a managerial perspective, companies should prioritize operational cost control by optimizing business processes, leveraging digital technologies, improving workforce productivity, and strengthening supply chain management without compromising product quality or customer service (Handayani, 2023). Such strategies enable firms to enhance operational efficiency while sustaining long-term profitability (Sigit Prasetyo, et al. 2026). For investors, operational cost efficiency may serve as an important indicator of managerial effectiveness, as it reflects a company's ability to utilize its resources efficiently and generate sustainable earnings (Kurniawati, 2026). From a theoretical perspective, these findings extend the existing literature by reinforcing Signaling Theory while also providing empirical support for the Resource-Based View and Dynamic Capability Theory, both of which emphasize that effective resource management and the continuous enhancement of organizational capabilities are fundamental to achieving sustainable competitive advantage and improving corporate profitability (Ferreira et al., 2022).

The Effect of Working Capital on Profitability

The empirical results indicate that working capital has a positive and statistically significant effect on profitability, thereby supporting the third hypothesis. This relationship suggests that firms maintaining an adequate level of working capital are more likely to achieve superior financial performance (Pratap, 2023). Sufficient working capital ensures the continuity of day-to-day operations,

ranging from raw material procurement and production activities to product distribution, thereby minimizing operational disruptions (Liana et al., 2026). Such conditions reduce the risk of cash shortages, production delays, and supply chain interruptions that could adversely affect sales performance and corporate earnings. Moreover, adequate working capital provides firms with greater financial flexibility to respond to fluctuations in market demand, maintain optimal inventory levels, and reduce reliance on short-term external financing, which is generally associated with higher financing costs (Setianto, et al. 2022). Consequently, effective working capital management not only supports operational continuity but also enhances business efficiency and contributes to sustainable profitability (Ayu & Hersugondo, 2020).

The positive relationship underscores the importance of maintaining an appropriate balance between liquidity and profitability. According to Working Capital Management Theory, the effective management of cash, accounts receivable, inventories, and short-term liabilities enables firms to maintain operational efficiency while improving their capacity to generate profits (Sagan, 1955). Likewise, Trade-off Theory argues that firms must balance liquidity requirements with profitability objectives. Insufficient working capital may disrupt business operations and increase liquidity risk, whereas excessive working capital can result in idle resources that reduce the efficiency of asset utilization (Kraus & Litzenberger, 1973). Therefore, maintaining an optimal level of working capital is essential for maximizing corporate profitability. From the perspective of Signaling Theory Spence (1973), adequate working capital also serves as a favorable signal of a firm's ability to sustain operational stability, meet short-term financial obligations, and maintain consistent financial performance, thereby strengthening investor confidence in the firm's future prospects.

The evidence obtained in this study is consistent with Sagiratun et al. (2024), who argued that adequate working capital contributes positively to profitability by supporting the smooth execution of business operations. Similar conclusions were reached by Tyas & Rudy (2025), who demonstrated that firms with effective working capital management generally exhibit stronger financial performance because they are better able to maintain an appropriate balance between liquidity and operational activities. International evidence further confirms that companies capable of optimizing working capital management benefit from greater financial flexibility, shorter operating cycles, and improved efficiency, all of which contribute to higher and more sustainable profitability (Jaworski & Czerwinka, 2021). Collectively, these studies reinforce the argument that working capital is a critical determinant of profitability, as it enables firms to support uninterrupted business operations while responding more effectively to market opportunities (Setianto et al., 2022). Similarly, the positive effect of working capital on profitability remains significant after controlling for leverage, indicating that adequate working capital contributes to profitability regardless of firms' capital structure decisions.

The present study offers several practical and theoretical implications Tyas & Rudy, 2025). From a managerial perspective, firms should maintain an optimal level of working capital by effectively managing cash, receivables, inventories, and short-term liabilities to ensure operational continuity without exposing the business to unnecessary liquidity constraints (Agustiyana, 2022). Sound working capital management also enhances financial flexibility, enabling companies to respond more effectively to changing market conditions, improve operational efficiency, and sustain long-term earnings growth (Setianto, et al. 2022). For investors, working capital represents an important indicator of a firm's ability to maintain operational stability and consistently generate profits (Connelly et al. 2011). From a theoretical standpoint, the results provide additional empirical support for Signaling Theory, while simultaneously reinforcing Working Capital Management Theory and Trade-off Theory, which emphasize that achieving an appropriate balance between liquidity and profitability through efficient working capital management is essential for enhancing corporate performance and sustaining long-term value creation (Jaworski & Czerwinka, 2021).

The Moderating Role of Firm Size on Financial Performance and Profitability

The empirical results indicate that firm size moderates the relationship between financial performance indicators and profitability in different ways. Firm size does not moderate the relationship between sales growth and profitability, but it significantly moderates the relationships between operational cost efficiency and profitability as well as between working capital and profitability. Furthermore, leverage, included as a control variable, also has a significant effect on profitability. These

findings suggest that firm size does not uniformly strengthen the influence of all financial performance indicators on profitability; rather, its moderating role depends on the characteristics of each financial indicator in creating corporate value.

Regarding the relationship between sales growth and profitability, firm size does not significantly moderate this relationship. This finding indicates that the contribution of sales growth to profitability is primarily determined by the firm's ability to convert increased sales into earnings rather than by the scale of the company (Fredrich et al., 2022). Sales growth alone does not automatically improve profitability unless it is accompanied by effective cost control, productivity improvement, and optimal resource utilization (Forliano, et al. 2022). Therefore, firm size does not provide additional explanatory power in this relationship because profitability is driven more by the effectiveness of managerial strategies and value creation than by organizational scale (Ferreira, et al. 2022). This finding is consistent with the Resource-Based View (RBV), which argues that sustainable competitive advantage is derived from a firm's capability to effectively manage strategic resources rather than from its size alone (Wernerfelt, 1984). In addition, Dynamic Capability Theory explains that firms capable of integrating, developing, and reconfiguring their resources in response to changing business environments are better positioned to improve profitability (Teece, 2025). Consequently, firm size does not alter the relationship between sales growth and profitability because the effectiveness of sales growth ultimately depends on managerial capabilities in managing operational activities.

Furthermore, firm size significantly moderates the relationship between operational cost efficiency and profitability. The findings indicate that firm size strengthens this relationship, implying that the more efficient a company is in managing its operating costs, the higher its profitability, and this positive relationship becomes stronger when firm size is taken into account (Ikhlas, et al. 2026). This result suggests that firm size enhances the effectiveness of operational control systems, technological adoption, business process integration, and resource coordination, thereby enabling operational cost efficiency to generate greater improvements in profitability (Piao & Choi, 2022). This finding is supported by the Resource-Based View, which emphasizes that competitive advantage is created through the effective utilization of organizational resources and capabilities (Arbelo, et al. 2020). Moreover, Economies of Scale Theory suggests that larger organizational scale facilitates more integrated operational processes, allowing the benefits of operational cost efficiency to be translated more effectively into higher profitability (Eckert, et al. 2022).

Firm size also significantly moderates the relationship between working capital and profitability. The findings indicate that firm size strengthens this relationship, suggesting that the better a company manages its working capital, the higher its profitability, and this positive relationship becomes stronger when firm size is considered as a moderating variable (Utami & Melvani, 2022). Adequate working capital enables firms to maintain operational continuity, meet short-term obligations, sustain inventory availability, and support uninterrupted production and distribution activities (Agustiyan, 2022). Under these conditions, firm size enhances the company's ability to optimize the utilization of working capital, thereby generating greater contributions to profitability (Ayuningtias & Handoko, 2025). This finding is supported by Working Capital Management Theory, which emphasizes that effective working capital management is essential for maintaining an optimal balance between liquidity and profitability. In addition, the Resource-Based View suggests that firms capable of utilizing their resources more effectively are better positioned to maximize the benefits of working capital and create sustainable competitive advantage, ultimately leading to higher profitability (Ferreira, et al. 2022).

In addition, this study incorporates leverage as a control variable, and the results indicate that leverage has a significant effect on profitability (Widjanarko, 2026). This finding suggests that capital structure remains an important factor that should be controlled when explaining variations in corporate profitability. Financing decisions influence a firm's ability to support operational activities, undertake investments, and create shareholder value. Therefore, the relationships between sales growth, operational cost efficiency, working capital, firm size, and profitability remain robust after controlling for the influence of leverage (Tuharea, et al. 2025). These findings support Trade-off Theory, which argues that an optimal capital structure is achieved by balancing the benefits of debt financing against the associated financial costs (Suhardjo, et al. 2022). They are also consistent with Pecking Order Theory, which explains that firms' financing choices affect their financial performance and profitability (Ibrahim, et al. 2023).

From the perspective of Signaling Theory Spence (1973), firm size serves as a signal of a company's capacity, stability, and credibility in the eyes of investors. However, the findings indicate that this signal does not uniformly strengthen the relationship between all financial performance indicators and profitability. Instead, the moderating role of firm size depends on the characteristics of each financial indicator, functioning primarily as a contextual factor that enhances the effectiveness of operational cost efficiency and working capital management rather than the impact of sales growth on profitability.

The practical implication of this study is that improving profitability requires not only increasing sales but also strengthening operational cost efficiency, optimizing working capital management, and maintaining an appropriate capital structure (Satoto & Nurrohim, 2022). Firm size should therefore be viewed as a contextual factor that enhances the effectiveness of resource management rather than as a direct determinant of profitability (Ayuningtias & Handoko, 2025). Theoretically, these findings extend Signaling Theory by integrating the Resource-Based View, Dynamic Capability Theory, Working Capital Management Theory, Economies of Scale Theory, Trade-off Theory, and Pecking Order Theory to explain the mechanisms through which firm size moderates the relationships between financial performance indicators and corporate profitability (Sufitrayati & Nursaimatussaddiya, 2026).

CONCLUSION

This study examines the determinants of profitability in the consumer non-cyclicals sector by evaluating the effects of sales growth, operational cost efficiency, and working capital, while assessing the moderating role of firm size and controlling for leverage. The empirical findings reveal that sales growth, operational cost efficiency, and working capital have positive and significant effects on profitability. These findings indicate that profitability is determined not only by a firm's ability to increase sales but also by its capability to manage operating costs efficiently and maintain adequate working capital to support business continuity. Furthermore, the significant effects of these variables remain robust after controlling for leverage, suggesting that their contributions to profitability are independent of differences in firms' financing structures. Therefore, companies operating in the consumer non-cyclicals sector should balance revenue growth with operational cost efficiency, optimal working capital management, and appropriate financing decisions to achieve sustainable profitability (Deari, et al. 2022).

The findings further demonstrate that firm size plays a selective moderating role in the relationship between financial performance indicators and profitability. Firm size does not significantly moderate the relationship between sales growth and profitability, indicating that the ability to transform sales growth into higher profitability depends primarily on managerial capability, operational effectiveness, and strategic resource utilization rather than organizational scale (Ibrahim, et al. 2023). In contrast, firm size strengthens the positive relationship between operational cost efficiency and profitability, as well as the relationship between working capital and profitability. These results suggest that firm size enhances the effectiveness of operational resource management and working capital utilization, thereby enabling firms to generate greater profitability. In addition, leverage, included as a control variable, has a significant effect on profitability, highlighting the importance of financing decisions in explaining variations in firms' financial performance (Tuharea, et al. 2025).

Theoretically, this study contributes to the corporate finance literature by extending Signalling Theory through the integration of the Resource-Based View (RBV), Dynamic Capability Theory, Working Capital Management Theory, Economies of Scale Theory, Trade-off Theory, and Pecking Order Theory in explaining how financial performance indicators influence profitability and how firm size selectively moderates these relationships (Dianti et al. 2024). The findings provide a broader understanding that corporate profitability is determined not only by improvements in financial performance indicators but also by firms' strategic capabilities, organizational characteristics, and financing decisions. From a practical perspective, managers should focus on strengthening sales growth, improving operational cost efficiency, maintaining adequate working capital, and implementing appropriate financing strategies to achieve sustainable profitability (Octavianus & Badjuri, 2026). For investors, evaluating firms should involve not only sales performance but also operational efficiency, working capital management, firm size, and capital structure when assessing long-term profitability.

Despite these contributions, this study has several limitations. First, the analysis is limited to consumer non-cyclicals companies listed on the Indonesia Stock Exchange during the 2022–2024

observation period, which may limit the generalizability of the findings to other industries and longer observation periods. Second, although this study incorporates leverage as a control variable, other factors that may influence profitability, such as firm age, asset turnover, corporate governance, ownership structure, and macroeconomic conditions, were not included in the research model. Therefore, future studies are encouraged to extend the observation period, expand the scope of industries, and incorporate additional explanatory and control variables to provide a more comprehensive understanding of the determinants of corporate profitability.

REFERENCES

- Agustiyana, R. (2022). Working Capital Management And Profitability Of Manufacturing Public Company In Indonesia. *Jurnal Studi Manajemen Organisasi*, 17, 49–57. <https://doi.org/10.14710/Jsmo.V17i2.39217>
- Annisa Rizky Ramadhani, Listiorini, & Mhd Karya Satya Azhar. (2025). Pengaruh Perputaran Modal Kerja, Likuiditas, Leverage, Pertumbuhan Penjualan Terhadap Profitabilitas, Ukuran perusahaan Sebagai Pemoderasi. *Jamek (Jurnal Akutansi Manajemen Ekonomi Dan Kewirausahaan)*, 05, 196–205. <https://doi.org/10.47065/Jamek.V5i1.1555>
- Anokhin, S., Spitsin, V., Vukovic, D. B., & Maiti, M. (2026). Unpacking The Relationship Between Sales Growth And Profitability. *Strategic Business Research*, 2(1), 100101. <https://doi.org/10.1016/J.Sbr.2026.100101>
- Arbelo, A., Arbelo-Pérez, M., & Pérez-Gómez, P. (2020). Profit Efficiency As A Measure Of Performance And Frontier Models: A Resource-Based View. *Brq Business Research Quarterly*, 24(2), 143–159. <https://doi.org/10.1177/2340944420924336>
- Ardito, L. (2023). The Influence Of Firm Digitalization On Sustainable Innovation Performance And The Moderating Role Of Corporate Sustainability Practices: An Empirical Investigation. *Business Strategy And The Environment*, 32(8), 5252–5272. <https://doi.org/10.1002/Bse.3415>
- Arika, & Desy. (2024). Pengaruh Efisiensi, Pertumbuhan Penjualan, Modal Kerja, Dan Umur Perusahaan Terhadap Profitabilitas Perusahaan. *Jurnal Mutiara Ilmu Akuntansi*, 2(4), 32–60. <https://doi.org/10.55606/Jumia.V2i4.3281>
- Ayu, R., & Hersugondo, A. (2020). Manajemen Modal Kerja Dan Profitabilitas Perusahaan Publik Sektor Manufaktur Di Indonesia. *Jurnal Studi Manajemen Organisasi*, 17(2). <https://doi.org/10.14710/Jsmo.V17i2.39217>
- Ayuningtias, K. S., & Handoko, L. (2025). The Impact Of Working Capital Management And Covid-19 On The Profitability Of Companies In Indonesia. In *Journal Of Strategic Management* (Vol. 5, Number 1).
- Baltagi, B. H. (2021). *Econometric Analysis Of Panel Data*. John Wiley & Sons, Incorporated. <https://books.google.co.id/books?id=H6qjeaaqbaj>
- Brigham, E. F., & Houston, J. F. (2021). *Fundamentals Of Financial Management*. Cengage Learning. <https://books.google.co.id/books?id=9uuxceaaqbaj>
- Cahyani, S. I., & Rahayu, Y. (2021). Pengaruh Profitabilitas Dan Pertumbuhan Penjualan Terhadap Nilai Perusahaan. *Jurnal Ilmu Dan Riset Akuntansi*, 11(Vol 11 No 1 (2022): Jurnal Ilmu Dan Riset Akuntansi).
- Connelly, B., Certo, T., Ireland, R., & Reutzel, C. (2011). Signaling Theory: A Review And Assessment. *Journal Of Management - J Manage*, 37, 39–67. <https://doi.org/10.1177/0149206310388419>
- Daulay, P. A., & Fitra, H. (2025). Pengaruh Efisiensi Operasional, Pertumbuhan Perusahaan Dan Struktur Modal Terhadap Profitabilitas Pada Perusahaan Sektor Transportasi Dan Logistik Di Bursa Efek Indonesia. *Jurnal Eksplorasi Akuntansi*, 7(3), 1358–1371. <https://doi.org/10.24036/Jea.V7i3.2917>
- Deari, F., Kukeli, A., Barbuta-Misu, N., & Virlanuta, F. O. (2022). Does Working Capital Management Affect Firm Profitability? Evidence From European Union Countries. *Journal Of Economic And Administrative Sciences*, 40(5), 1060–1080. <https://doi.org/10.1108/Jeas-11-2021-0222>
- Dianti, P. M., Dwi, A., & Bawono, B. (2024). Enrichment: Journal Of Management The Effect Of Capital Structure, Sales Growth, Working Capital Turnover, And Liquidity On Company Profitability With Firm Size As A Moderating Variable. In *Enrichment: Journal Of Management* (Vol. 14, Number 5).
- Eckert, S., Koppe, M., Burkatzki, E., Eichentopf, S., & Scharf, C. (2022). Economies Of Scale: The Rationale Behind The Multinationality-Performance Enigma. *Management International Review*, 62(5), 681–710. <https://doi.org/10.1007/S11575-022-00473-2>
- Ferreira, J. J., Fernandes, C., & Ferreira, F. (2022). What Makes Organizations Unique? Looking Inside The Box. *Journal Of Business Research*, 139, 664–674. <https://doi.org/10.1016/J.Jbusres.2021.10.017>
- Forliano, C., Ferraris, A., Bivona, E., & Couturier, J. (2022). Pouring New Wine Into Old Bottles: A Dynamic Perspective Of The Interplay Among Environmental Dynamism, Capabilities Development, And

- Performance. *Journal Of Business Research*, 142, 448–463.
<https://doi.org/10.1016/j.jbusres.2021.12.065>
- Fredrich, V., Gudergan, S., & Bouncken, R. B. (2022). Dynamic Capabilities, Internationalization And Growth Of Small- And Medium-Sized Enterprises: The Roles Of Research And Development Intensity And Collaborative Intensity. *Management International Review*, 62(4), 611–642.
<https://doi.org/10.1007/S11575-022-00480-3>
- Gisda, A., & Bosowa, P. (2025). Pengaruh Biaya Dan Pendapatan Operasional Terhadap Profitabilitas Perusahaan (Study Kasus Pt Bosowa Mining). *Jurnal Pabean*, 7(1).
- Greene, W. H. (2018). *Econometric Analysis*. *Econometric Analysis*. <https://doi.org/10.3390/Ijfs7020030>
- Gujarati, D. N., Porter, D. C., & Gunasekar, S. (2012). *Basic Econometrics*. Mcgraw-Hill Education (India) Private Limited. https://books.google.co.id/books?id=Q_5izweacaaj
- Hair, J. F., Babin, B. J., Anderson, R. E., & Black, W. C. (2022). *Multivariate Data Analysis*. Cengage Learning. <https://books.google.co.id/books?id=Ponxeaaqbaj>
- Handayani, T. (2023). Pengaruh Biaya Operasional Dan Pertumbuhan Penjualan Terhadap Profitabilitas Pada Perusahaan Manufaktur Sub Sektor Farmasi Periode 2017-2021. *Jurnal Administrasi Bisnis Fisipol Unmul*, 11(3). <https://doi.org/http://dx.doi.org/10.54144/Jadbis.V11i3.10859>
- Harahap, S. S. (2021). *Analisis Kritis Atas Laporan Keuangan*. Rajawali Press. <https://books.google.co.id/books?id=5wlzweacaaj>
- Hery. (2023). *Analisis Laporan Keuangan : Intergrated And Comperhesive EDITION*. <https://books.google.co.id/books?id=Cfkjeaaqbaj>
- Hocky, A., & Wijaya, E. (2024). The Effect Of Leverage, Revenue Growth, And Total Asset Turnover On Profitability Of Listed Companies In The Basic Materials Sector In Indonesian Stock Exchange Period. *Procuratio: Jurnal Ilmiah Manajemen*, 12(1).
<https://doi.org/https://doi.org/10.35145/Procuratio.V12i1.4295>
- Ibrahim, A., Tariq, M. U., Batool, I., & Iqbal, S. (2023). Impact Of Financial Leverage And Working Capital Management On Firm's Profitability With Pandemic Influences. *Journal Of Advanced Research In Economics And Administrative Sciences*, 4(3), 24–36. <https://doi.org/10.47631/Jareas.V4i3.660>
- Ikhlas, P., Rahayu, S., & Erwati, M. (2026). The Effect Of Capital Structure And Company Size On Profitability With Operational Efficiency As An Intervening Variable: Case Study Of Property And Real Estate Companies Listed On The Idx 2020-2023. *Jurnal Cakrawala Akuntansi*, 18(1).
<https://doi.org/https://doi.org/10.22437/Jca.V18i1.49618>
- Irawan, P., Damayanti, E., Pratama, R. P., Siagian, L. D., & Hanggraeni, D. (2025). Operational Risk And Bank Profitability: Analyzing Bopo And Efficiency Ratios In Indonesian Commercial Banks. *Jurnal Pendidikan Indonesia*, 6(1), 338. <https://doi.org/https://doi.org/10.59141/Japendi.V6i1.6775>
- Irham Fahmi. (2016). *Pengantar Manajemen Keuangan* (Vol. 2017). Bandung: Alfabeta. https://scholar.google.com/citations?view_op=view_citation&hl=en&user=U7b07qwaaaaj&citation_for_view=U7b07qwaaaaj:Facezflait8c
- Jaworski, J., & Czerwonka, L. (2021). Profitability And Working Capital Management: Evidence From The Warsaw Stock Exchange. *Journal Of Business Economics And Management*, 23(1), 180–198.
<https://doi.org/10.3846/Jbem.2022.15087>
- Kasmir. (2019). *Analisis Laporan Keuangan*. Rajagrafindo Persada. <https://books.google.co.id/books?id=0ijoeqaaqbaj>
- Ketut, N., Ulandari, P., Wulan, N. A., & Dewi, T. (2025). Pengaruh Rasio Aktivitas, Efisiensi Operasional, Dan Tingkat Solvabilitas Terhadap Profitabilitas Pada Perusahaan Sektor Properti Yang Terdaftar Di Bursa Efek Indonesia Periode 2020-2023. *Vjra*, 14(3).
<https://doi.org/https://doi.org/10.23887/Vjra.V14i3.100780>
- Kraus, A., & Litzenberger, R. H. (1973). A State-Preference Model Of Optimal Financial Leverage. *The Journal Of Finance*, 28(4), 911–922. <https://doi.org/10.2307/2978343>
- Kurniawati, E. (2026). Analisis Pengaruh Strategi Pengelola Risiko, Efisiensi Operasional Dan Net Interest Margin Terhadap Profitabilitas Studi Kasus Bank Umum Yang Terdaftar Di Bei Periode 2022-2024. *Cerdika: Jurnal Ilmiah Indonesia*, 6(4), 1368–1386. <https://doi.org/10.59141/Cerdika.V6i4.3431>
- Liana, J., Eka Putra, W., & Olimsar, F. (2026). Systematic Literature Review: The Impact Of Working Capital Management On Profitability. *Journal Research Of Social Science, Economics, And Managemen*, 5(10).
<https://doi.org/https://doi.org/10.59141/Jrssem.V5i10.1466>
- Lin, C., & Bowman, D. (2022). The Impact Of Introducing A Customer Loyalty Program On Category Sales And Profitability. *Journal Of Retailing And Consumer Services*, 64, 102769.
<https://doi.org/https://doi.org/10.1016/J.jretconser.2021.102769>

- Mariyam, S., & Kusmawati, Y. (2025). Pengaruh Modal Kerja Dan Current Ratio Terhadap Roe Pada Pt Indofood Sukses Makmur Tbk Tahun 2014-2024 *The Effect Of Working Capital And Current Ratio On Roe At Pt Indofood Sukses Makmur Tbk In 2014-2024*. 2. <https://jicnusantara.com/index.php/jicn>
- Melvina, M., & Ekadjaja, A. (2023). Factors Affecting Profitability On Banking Companies Listed On The Idx. *International Journal Of Application On Economics And Business*, 1(4), 1878–1888. <https://doi.org/10.24912/Ijaeb.V1i4.1878-1888>
- Muhani, Melati, Elwisam, Digdowiseiso, K., & Sa'at, N. H. (2024). The Determinants Of Firm Profitability In Indonesia. *International Journal Of Social Science*, 3(4). <https://doi.org/https://doi.org/10.54443/Ijset.V3i4.403>
- Nabila, & Putu Putri Prawitasari. (2025). Pengaruh Leverage, Likuiditas, Pertumbuhan Penjualan Terhadap Profitabilitas Dengan Ukuran Perusahaan Sebagai Variabel Moderasi Pada Perusahaan Subsektor Food & Beverage Yang Terdaftar Di Bei Periode 2024. *Jimea | Jurnal Ilmiah Mea (Manajemen, Ekonomi, Dan Akuntansi)*, 9(3). <https://doi.org/doi:10.31955/Mea.V9i3.6756>
- Nur, A., Syah Putra, A., & Qurochman, A. N. (2024). The Effect Of Financial Leverage And Operating Leverage On Company Profitability. *International Journal On Social Science, Economics And Art*, 14(2), 228–237. <https://doi.org/https://doi.org/10.24843/Eeb.2023.V12.I07.P01>
- Nurfritri, I., Nurfauziah, T., & Karpiana, A. P. (2025). Pengaruh Perputaran Modal Kerja Dan Struktur Modal Terhadap Profitabilitas Dengan Ukuran Perusahaan Sebagai Moderasi Pada Perusahaan Manufaktur Periode 2021-2023. *Geoekonomi*. <https://doi.org/10.36277/Geoekonomi.V16i2.614>
- Nurmalasari, N., & Carmelita, D. (2025). Exploring The Impact Of Operational Efficiency On Performance: Case Of Basic Industry 2023-2024. *Journal Of Public Sector Accounting And Management*, 2. <https://ojs.stiesia.ac.id/index.php/jpsam>
- Octavianus, Y. P., & Badjuri, A. (2026). The Impact Of Working Capital Efficiency, Cash Conversion Cycle, And Current Ratio On Profitability With Firm Size As A Moderating Variable. *Islamic Finance And Management*, 6(1). <https://doi.org/https://doi.org/10.31538/Mjifm.V6i1.775>
- Piao, X., & Choi, M. (2022). The Different Effects Of Firm Resources On Firm Performance Under Volatility: An Examination Using Big Data. *Discrete Dynamics In Nature And Society*, 2022. <https://doi.org/10.1155/2022/6151667>
- Pratap, V. (2023). Working Capital Management: A Systematic Literature Review. *The Empirical Economics Letters*, 22, 61–93. <https://doi.org/10.5281/Zenodo.10463289>
- Riadani, A. R., Hariyanto, E., Fitriati, A., & Santoso, S. E. B. (2024). Pengaruh Pertumbuhan Penjualan, Likuiditas Dan Ukuran Perusahaan Terhadap Profitabilitas Perusahaan Sektor Industri Di Bei. *Jurnal Ecogen*, 7(1), 88. <https://doi.org/10.24036/Jmpe.V7i1.15727>
- Rizky Ramadhani Siregar, A., Karya Satya Azhar, M., Ekonomi Dan Bisnis, F., & Harapan Medan, U. (2025). Pengaruh Perputaran Modal Kerja Dan Likuiditas Terhadap Profitabilitas Dengan Ukuran Perusahaan Sebagai Variabel Moderasi (Studi Pada Perusahaan Food & Beverages Yang Terdaftar Di Bursa Efek Indonesia Tahun 2018-2023). *Jusapak(Jurnal Studi Akuntansi Pajak Keuangan)*, 3(1), 13–18. <https://doi.org/doi:https://doi.org/10.61696/Jusapak.V3i1.643>
- Runtuwene, E. N., Sondakh, J. J., & Walandouw, S. K. (2023). Pengaruh Perputaran Modal Kerja, Pertumbuhan Penjualan Dan Ukuran Perusahaan Terhadap Profitabilitas (Studi Pada Perusahaan Properti Yang Terdaftar Di Bursa Efek Indonesia Tahun 2019-2022). *Riset Akuntansi Dan Portofolio Investasi*, 1(2), 114–124. <https://doi.org/10.58784/Rapi.70>
- Sagan, J. (1955). Toward A Theory Of Working Capital Management. *The Journal Of Finance*, 10(2), 121–129. <https://doi.org/https://doi.org/10.1111/J.1540-6261.1955.Tb01259.X>
- Sagiratun, S., Pratiwi, A., & Tinggi Ilmu Ekonomi Bima, S. (2024). Pengaruh Working Capital Turnover, Current Ratio Dan Debt To Equity Ratio Terhadap Return On Equity Pada Pt. Japfa Comfeed Indonesia Tbk. *Jurnal Ekonomi Bisnis, Manajemen Dan Akuntansi (Jebma)*, 04. <https://doi.org/doi:doi.org/Jebma.V4n2.3988>
- Sari, Henny P., & Harahap Elidawati Thomas Sumarsan Goh, S. (2022). The Effect Of Net Profit, Account Payable, Cash Turnover And Inventory Turnover On Operational Cash Flow In Pt. Mulia. *Atma Jaya Accounting Research (Ajar)*, 5(02), 242–258. <https://doi.org/https://doi.org/10.35129/Ajar.V5i02.343>
- Sartono, A. (2010). Manajemen Keuangan. Yogyakarta: Bpfe. <https://scholar.google.com/citations?user=22tv82maaaaj&hl=en>
- Sastrasasmitha, E., & Imelda, E. (2023). Profitabilitas Perusahaan Consumer Non-Cyclical Dengan Faktor Pengaruh Size, Leverage, Growth Dan Efek Pandemi Covid-19. *Jurnal Serina Ekonomi Dan Bisnis*, 1(2). <https://doi.org/https://doi.org/10.24912/Jseb.V1i2.27047>
- Satoto, S. H., & Nurrohm, H. (2022). Working Capital Management Before And During The Covid-19 Pandemic And Their Effect On Profitability In Manufacturing Companies Listed On The Indonesia Stock Exchange. *Business And Accounting Research (Ijebiar) Peer Reviewed-International Journal*, 6(3). <https://doi.org/https://doi.org/10.29040/Ijebiar.V6i3.6493>

- Septianto, R., Maheltra, W. O., & Sari, L. (2022). *Pengaruh Modal Kerja Dan Likuiditas Terhadap Profitabilitas Pada Perusahaan Manufaktur Sub Sektor Farmasi Tahun 2016-2020*. 3. <https://doi.org/10.31933/jimt.v3i4>
- Setianto, R. H., Sipayung, R. S., & Azman-Saini, W. N. W. (2022). Working Capital Financing And Corporate Profitability In The Asean Region: The Role Of Financial Development. *Entrepreneurial Business And Economics Review*, 10(1), 51–64. <https://doi.org/10.15678/Eber.2022.100104>
- Setiawan, B., & Sha, T. L. (2022). Pengaruh Cash Turnover, Firm Size, Leverage, Dan Sales Growth Terhadap Profitabilitas. *Jurnal Paradigma Akuntansi*, 4(3). <https://doi.org/10.24912/jpa.v4i3.19713>
- Shabihah, K., & Rusdi, D. (2025). Moderation Of Firm Size In The Influence Of Working Capital And Inventory On The Company's Financial Performance. *Jafm (Journal Of Accounting And Finance Management)*, 6(1). <https://doi.org/10.38035/jafm.v6i1>
- Sigit Agus Dwi Prasetyo, Della Padilla Sari, Yani Susetyo, & Samto. (2026). Pengaruh Efisiensi Biaya Operasional, Pertumbuhan Penjualan, Dan Ukuran Perusahaan Terhadap Profitabilitas Pada Perusahaan Sektor Mineral Di Bei Periode 2021-2024. *E-Logis: Jurnal Ekonomi Logistik*, 8(1), 150–163. <https://doi.org/10.70375/E-Logis.V8i1.198>
- Sofian Suriawinata, I., Tri Budiyan, E., Gusliana Mais, R., & Anhar, M. (2023). Cash Conversion Cycle, Asset Turnover, Capital Expenditure And Firm Value: The Mediating Role Of Profitability. *Jurnal Reviu Akuntansi Dan Keuangan*, 13(3), 674–695. <https://doi.org/10.22219/jrak.v13i3.25161>
- Sormin, P., Novietta, L., & Nurmadi, R. (2023). *Pengaruh Perputaran Modal Kerja, Likuiditas, Solvabilitas Terhadap Profitabilitas Dengan Ukuran Perusahaan Sebagai Variabel Moderasi (Studi Kasus Pada Perusahaan Property Dan Real Estate Yang Terdaftar Di Bei Tahun 2018-2022)*. 5(2). <https://doi.org/10.55606/sinov.v5i2.668>
- Spence, M. (1973). Job Market Signaling. In *Source: The Quarterly Journal Of Economics* (Vol. 87, Number 3).
- Sufitrayati, & Nursaimatussaddiya. (2026). Determinants Of Capital Structure And The Effect On Financial Performance: Testing Pecking Order And Trade-Off Models. *Jurnal Ilmiah Manajemen Kesatuan*, 14(1), 757–768. <https://doi.org/10.37641/jimkes.v14i1.4675>
- Suhardjo, Y., Karim, A., & Taruna, M. S. (2022). Effect Of Profitability, Liquidity, And Company Size On Capital Structure: Evidence From Indonesia Manufacturing Companies. *Diponegoro International Journal Of Business*, 5(1), 70–78. <https://doi.org/10.14710/dijb.v5i1.2022.70-78>
- Tabachnick, B. G., & Fidell, L. S. (2018). *Using Multivariate Statistics*. Pearson. <https://books.google.co.id/books?id=Cev2sweacaaj>
- Teece, D. J. (2025). *Dynamic Capabilities: Foundational Concepts*. Cambridge University Press. <https://doi.org/10.1017/9781009562713>
- Titah Sekaring Tyas, & Rudy Bodewyn Mangasa Tua. (2025). Pengaruh Perputaran Modal Kerja Dan Pertumbuhan Penjualan Terhadap Profitabilitas (Roa) Pada Pt. Siantar Top Tbk Periode 2014 – 2023. *Jurnal Ilmiah Ekonomi Manajemen Bisnis Dan Akuntansi*, 2(5), 643–652. <https://doi.org/10.61722/jemba.v2i5.1454>
- Tuharea, F. I., Pramitasari, D., & Cahyani, M. (2025). The Effect Of Leverage On Profitability With Firm Size And Sales Growth As Moderating Variables In Lq-45 Companies Listed On The Indonesia Stock Exchange. *Journal Of Islamic Economic And Business*, 7(4), 2025. <https://doi.org/10.24256/kharaj.v7i4.8428>
- Utami, D., & Melvani, F. N. (2022). Manajemen Modal Kerja Terhadap Profitabilitas Dengan Ukuran Perusahaan Sebagai Variabel Moderasi. *Jurnal Aplikasi Manajemen Dan Bisnis*, 3(1). <https://doi.org/10.5281/zenodo.7275596>
- Wernerfelt, B. (1984). A Resource-Based View Of The Firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- Widjanarko, W. (2026). The Effect Of Leverage On Profitability: A Dynamic Panel Study On The Idx. *Jurnal Ilmiah Manajemen Kesatuan*, 14(1), 301–310. <https://doi.org/10.37641/jimkes.v14i1.4815>
- Wooldridge, J. M. (2019). *Introductory Econometrics: A Modern Approach*. Cengage Learning. https://books.google.co.id/books?id=0p9_Tqecaaj