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Financial Ratios and Firm Size Impact on Corporate Value: Indonesian Consumer Goods Analysis

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Abstract

This investigation analyzes how financial performance indicators and organizational scale influence corporate value within Indonesia's primary consumer goods sector during 2020-2023. Utilizing Indonesia Stock Exchange data, the research measures liquidity through Current Ratio (CR), solvency via Debt to Equity Ratio (DER), operational efficiency using Total Asset Turnover (TATO), profitability through Return on Assets (ROA), and firm scale via natural logarithm of total assets. Corporate value assessment employs Tobin's Q ratio. Through purposive sampling methodology, 42 companies were selected for multiple linear regression examination. Results indicate that liquidity and solvency demonstrate no significant individual impact on firm value, while operational activity and firm size exhibit significant negative effects. Profitability shows significant positive influence on corporate valuation. Collectively, all variables demonstrate significant combined effects on firm value, emphasizing the multifaceted nature of value determination in Indonesia's consumer goods industry.

Keywords: *Corporate Valuation, Financial Performance, Investment Analysis, Consumer Goods Sector, Market Assessment*

Introduction

Modern enterprises operate within dynamic economic environments where strategic adaptability and financial excellence determine organizational sustainability. Creating competitive advantages requires harmonizing short-term profitability objectives with long-term value generation, compelling management to establish comprehensive performance frameworks.

Corporate valuation serves as a fundamental performance metric for stakeholders assessing organizational effectiveness. This investigation utilizes Tobin's Q as the primary valuation measure, representing the relationship between market capitalization and asset replacement costs. Superior valuations generally reflect efficient management practices and promising future outlooks, facilitating enhanced capital market access.

Various financial factors influence corporate valuation, including Return on Assets (ROA) for evaluating asset productivity, organizational scale quantified through logarithmic asset transformation, and short-term financial capacity assessed via Current Ratio. Additionally, solvency, measured through Debt to Equity ratios, demonstrates risk management strategies affecting investor confidence. Prior investigations present inconsistent findings regarding these associations, particularly within consumer goods sectors, requiring targeted examination given their unique operational characteristics.

Literature Review

Signaling Theory

Signaling theory establishes a framework whereby organizations convey information to financial statement users for achieving strategic positioning (Thompson & Davis, 2021). Management communicates operational performance through financial disclosure to reduce information asymmetry between internal leadership and external stakeholders. Contemporary research indicates signaling theory affects corporate value by encouraging organizations to deliver transparent signals to investors (Thompson & Davis, 2021; Martinez & Rodriguez,

2022). Organizations anticipate that favorable signals through superior financial reporting will attract external investment with enhanced confidence.

Trade-Off Theory

The trade-off framework, initially formulated by Modigliani and Miller (1963), establishes a structure for determining optimal capital composition by evaluating tax benefits from debt usage against potential financial distress costs. This framework examines how organizations maximize corporate value through strategic capital structure choices.

The framework involves balancing advantages and disadvantages of debt employment. Organizations may increase borrowing levels provided benefits exceed costs, but additional leverage becomes detrimental when costs surpass reasonable limits (Wilson & Thompson, 2020).

Firm Value

Corporate value represents the price potential purchasers would offer if the organization were acquired, reflecting specific achievements accomplished through business operations across multiple periods since inception (Anderson et al., 2021). Corporate value demonstrates an organization's capability to manage and develop operations throughout time. Enhanced corporate value indicates superior performance and attracts stakeholder interest, while diminished value suggests suboptimal performance discouraging investment (Garcia & Smith, 2022).

Firm Size

Organizational scale serves as an indicator determining company magnitude based on criteria including total assets, market capitalization, and revenue levels (Johnson & Lee, 2020). Larger organizations typically demonstrate greater resilience facing business challenges and superior profit-generating ability due to substantial asset foundations. Enhanced organizational scale indicates superior prospects and performance, encouraging stakeholder participation due to more favorable returns (Kim et al., 2021).

Profitability

Profitability represents financial ratios evaluating organizational ability to generate earnings from standard business operations (Davis & Brown, 2021). Organizations producing substantial profits demonstrate effective management, resulting in superior performance and positive signals to stakeholders for investment choices (Miller & Taylor, 2022).

Liquidity

Liquidity ratios assess organizational liquidity levels, indicating whether companies can settle obligations effectively (Wang & Zhang, 2020). Strong liquidity performance enhances stakeholder confidence as organizations can efficiently fulfill short-term obligations, reflecting operational continuity capacity (Liu et al., 2023).

Solvency

Solvency represents ratios demonstrating asset proportions financed through debt, indicating borrowing utilization extent for asset financing (Roberts & Kumar, 2021). Effectively managed solvency can increase organizational capacity to generate earnings, attracting stakeholder interest and ultimately enhancing corporate value (Patel & Singh, 2022).

Methods

Data Types and Sources

This quantitative investigation employs a causality methodology requiring corporate financial information processed using statistical techniques. The study utilizes secondary data from organizational financial

documents available on the Indonesia Stock Exchange (IDX) portal and Financial Services Authority (OJK) website.

Population and Sample

The research examines Primary Consumer Goods Sector companies meeting specific criteria through purposive sampling methodology:

1. Organizations consistently publishing annual reports and financial statements from 2020-2023
2. Organizations providing complete data related to research variables for 2020-2023
3. Organizations maintaining positive financial performance during 2020-2023

From 87 organizations, 42 satisfied the criteria, generating 168 observations over the 4-year period.

Variable Measurements

Dependent Variable

Firm Value

Corporate value reflects stakeholder perceptions of organizational success in generating returns enhancing shareholder wealth.

$$\text{Tobin's Q} = \frac{\text{Market Value of Assets}}{\text{Book Value of Assets}}$$

Independent Variables

Firm Size

Organizational scale represents the magnitude of a company measured by total assets, revenue, earnings, and other financial indicators. Firm size measurement uses the formula:

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

Profitability

Profitability represents ratios used to evaluate an organization's ability to generate earnings from sales or investment funding. Profitability measurement uses the formula:

$$\text{ROA} = \frac{\text{Net Income After Tax}}{\text{Total Assets}} \; x \; 100\%$$

Liquidity

Liquidity ratios are financial indicators assessing an organization's capacity to meet short-term financial obligations using readily available assets. Liquidity measurement uses the formula:

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

Solvency

Solvency ratios represent financial measures indicating the extent to which an organization utilizes debt financing relative to equity capital. Solvency measurement uses the formula:

$$\text{DER} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Activity

Activity ratios measure how efficiently an organization utilizes its assets to generate revenue. Activity measurement uses the formula:

$$\text{TATO} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

Data Analysis

Data analysis employed multiple linear regression using SPSS software to examine independent variable influences on corporate value.

Results and Discussion

Multiple Linear Analysis

This investigation employs multiple linear regression analysis as the primary analytical approach for data processing to gain comprehensive insights into how independent variables impact the dependent variable. The analytical results are presented in the table below.

Table 1. Multiple Linear Analysis

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.456	.543		4.525	
	Liquidity (CR)	-.089	.045	-.158	-1.978	.049
	Solvency (DER)	-.067	.038	-.142	-1.763	.080
	Activity (TATO)	-.234	.067	-.287	-3.493	.001
	Profitability (ROA)	.156	.034	.378	4.588	<.001
	Firm Size (LnTA)	-.187	.052	-.295	-3.596	<.001

Source: SPSS processed results, 2025

Based on the table, the multiple linear regression equation can be formed as follows:

$$\mathbf{Y = 2.456 - 0.089X_1 - 0.067X_2 - 0.234X_3 + 0.156X_4 - 0.187X_5}$$

The equation interpretation:

1. $\alpha = 2.456$, represents the constant value indicating that if Liquidity, Solvency, Activity, Profitability, and Firm Size variables remain constant, Firm Value is estimated at 2.456.
2. $\beta_1 = -0.089$, for Liquidity variable, indicates that every unit increase in Liquidity will decrease Firm Value by 0.089, assuming other variables remain constant.
3. $\beta_2 = -0.067$, for Solvency variable, shows that every unit increase in Solvency will decrease Firm Value by 0.067, assuming other variables remain constant.
4. $\beta_3 = -0.234$, for Activity variable, demonstrates that every unit increase in Activity will decrease Firm Value by 0.234, assuming other variables remain constant.
5. $\beta_4 = 0.156$, for Profitability variable, indicates that every unit increase in Profitability will increase Firm Value by 0.156, assuming other variables remain constant.
6. $\beta_5 = -0.187$, for Firm Size variable, shows that every unit increase in Firm Size will decrease Firm Value by 0.187, assuming other variables remain constant.

Research Hypothesis Testing

Statistical Test t (Partial)

The t-test measures the influence degree that each independent variable individually exerts on the dependent variable, while other independent variables remain constant. If an independent variable's significance value falls below 0.05, this confirms the hypothesis and indicates statistically significant impact.

Table 2. Statistical Test t Results

Variables	t-calculated	t-table	Significance	Decision
Liquidity (CR)	-1.978	1.974	.049	Significant
Solvency (DER)	-1.763	1.974	.080	Not Significant
Activity (TATO)	-3.493	1.974	.001	Significant
Profitability (ROA)	4.588	1.974	<.001	Significant
Firm Size (LnTA)	-3.596	1.974	<.001	Significant

Source: SPSS processed results, 2025

From the regression analysis:

1. Liquidity: significance 0.049 < 0.05 (significant) with t-calculated = |-1.978| > t-table = 1.974, indicating H_1 is accepted. Liquidity has a significant negative effect on firm value.
2. Solvency: significance 0.080 > 0.05 (not significant) with t-calculated = |-1.763| < t-table = 1.974, indicating H_2 is rejected. Solvency has no significant effect on firm value.
3. Activity: significance 0.001 < 0.05 (significant) with t-calculated = |-3.493| > t-table = 1.974, indicating H_3 is accepted. Activity has a significant negative effect on firm value.
4. Profitability: significance <0.001 < 0.05 (significant) with t-calculated = 4.588 > t-table = 1.974, indicating H_4 is accepted. Profitability has a significant positive effect on firm value.
5. Firm Size: significance <0.001 < 0.05 (significant) with t-calculated = |-3.596| > t-table = 1.974, indicating H_5 is accepted. Firm size has a significant negative effect on firm value.

Simultaneous Test (F-Test)

Statistical F-testing determines the collective impact of independent variables on the dependent variable.

Table 3. Statistical Test F

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	385.642	5	77.128	18.956	<.001[b]
	Residual	658.234	162	4.063		
	Total	1043.876	167			

Source: SPSS processed results, 2025

The F-calculated value of 18.956 with significance <0.001 < 0.05 indicates that Liquidity, Solvency, Activity, Profitability, and Firm Size simultaneously demonstrate significant effects on Firm Value.

Determination Coefficient Test (Adjusted R^2)
The Determination Coefficient measures the model's capability to explain dependent variable variation.

Table 4. Coefficient Determination Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.608[a]	.370	.350	2.01573

Source: SPSS processed results, 2025

The adjusted R^2 coefficient of 0.350 indicates that firm value (dependent variable) can be explained by independent variables of liquidity, solvency, activity, profitability, and firm size by 35.0%, while the remaining 65.0% is influenced by other factors not examined in this investigation.

Discussion

Liquidity Effect on Firm Value

Empirical findings demonstrate that liquidity significantly and negatively influences firm value (t-calculated = -1.978, p = 0.049). This counterintuitive relationship suggests that excessive liquidity may signal inefficient capital deployment within consumer goods organizations. High current ratios might indicate management's inability to identify profitable investment opportunities, leading to idle cash that generates minimal returns. Market participants may interpret excessive liquidity as missed growth opportunities, particularly in dynamic consumer goods markets where rapid product innovation and market expansion require continuous capital investment (Chen & Liu, 2021).

Solvency Effect on Firm Value

Solvency exhibits no statistically significant relationship with firm value (t-calculated = -1.763, p = 0.080). Consumer goods sector investors may not prioritize debt-to-equity ratios when evaluating companies, instead focusing on operational performance and market positioning. This finding suggests that moderate leverage levels are generally acceptable within this sector, as long as organizations maintain adequate cash flows to service debt obligations. The non-significant relationship indicates that solvency management operates within acceptable ranges across sample companies (Williams & Johnson, 2022).

Activity Effect on Firm Value

Total asset turnover demonstrates significant negative relationship with firm value (t-calculated = -3.493, p = 0.001). This unexpected finding may reflect the consumer goods sector's capital-intensive nature, where substantial asset investments are necessary for production and distribution capabilities. High asset turnover might indicate aggressive asset utilization that compromises long-term sustainability or quality standards. Alternatively, companies with lower asset turnover may possess valuable brand assets or production facilities that command premium market valuations despite lower efficiency metrics (Ahmed & Hassan, 2020).

Profitability Effect on Firm Value

Profitability exhibits strong positive relationship with firm value (t-calculated = 4.588, p < 0.001). This robust association emphasizes the critical importance of efficient asset management in creating shareholder value. Superior profitability signals effective management capability to generate excellent returns from available resources. Organizations demonstrating consistent profitability attract institutional investors prioritizing stable, dividend-paying securities. Strong profitability creates positive feedback mechanisms where enhanced market valuations reduce capital costs, enabling additional value-creating investments (Turner & Cooper, 2021).

Firm Size Effect on Firm Value

Organizational scale demonstrates significant negative relationship with firm value (t-calculated = -3.596, $p < 0.001$). This finding suggests that larger consumer goods companies may experience diseconomies of scale or management inefficiencies that reduce per-unit value creation. Smaller organizations might demonstrate superior agility and focused market positioning, enabling premium valuations despite limited scale. The negative relationship may also reflect market preferences for growth potential over established size within dynamic consumer markets (Park & Kim, 2023).

Simultaneous Effect Analysis

The F-test results (F-calculated = 18.956, $p < 0.001$) demonstrate that all variables collectively influence firm value significantly. The R-squared value of 0.350 indicates moderate explanatory power, suggesting investors systematically evaluate consumer goods companies using multiple financial metrics. This validates the theoretical framework combining signaling theory and trade-off theory, requiring coordinated management across various financial dimensions to optimize market valuation (Harris & Nelson, 2021).

Conclusion

Individual Effects: Liquidity, activity, and firm size demonstrate negative and significant effects on firm value (t-values: -1.978, -3.493, and -3.596 respectively, $p < 0.05$), while profitability shows positive significant impact (t-value = 4.588, $p < 0.001$). Solvency exhibits no significant influence (t-value = -1.763, $p = 0.080$). Profitability emerges as the primary positive value driver in the consumer goods sector.

Simultaneous Effect: All variables collectively exert significant effects on firm value (F-calculated = 18.956, $p < 0.001$), validating comprehensive evaluation approaches by consumer goods sector investors.

Explanatory Power: The model explains 35.0% of firm value variation (adjusted $R^2 = 0.350$), with 65.0% influenced by unexamined factors such as brand strength, market positioning, and competitive dynamics.

Recommendations

For Management:

1. Profitability optimization: Focus on enhancing asset productivity through efficient operations, cost management, and revenue optimization strategies
2. Liquidity management: Maintain optimal liquidity levels that balance operational needs with growth investment opportunities
3. Scale efficiency: Pursue strategic growth that enhances operational efficiency rather than simple size expansion
4. Integrated approach: Coordinate management across multiple financial dimensions while prioritizing profitability as the key value driver

For Future Research:

1. Incorporate qualitative factors such as brand value, market share, and innovation capabilities
2. Examine industry-specific variables including distribution networks, product portfolio diversity, and consumer loyalty metrics
3. Conduct cross-sectional analysis across different consumer goods sub-sectors (food, beverages, personal care)
4. Apply advanced econometric techniques to address potential endogeneity concerns and explore non-linear relationships

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