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Profit Persistence, Potential Profit, and Capital Structure Effects on Profit Quality in Chemical Manufacturing Firms

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Abstract

This study investigates the impact of profit persistence, potential profit, and capital structure on profit quality within chemical subsector manufacturing companies listed on the Indonesia Stock Exchange. Utilizing purposive sampling methodology, 13 companies were examined through secondary data from quarterly financial statements. Profit persistence and potential profit were measured through earnings-based ratios, capital structure through Debt to Equity Ratio (DER), and profit quality through operating cash flow to net profit ratio. Multiple linear regression analysis reveals that profit persistence and potential profit demonstrate no significant effects on profit quality, whereas capital structure exhibits a significant negative influence. Simultaneous testing confirms collective significance of all independent variables. These findings provide critical insights for financial reporting quality assessment and stakeholder decision-making processes in Indonesia's chemical manufacturing sector.

Keywords: Profit Persistence, Potential Profit, Capital Structure, Profit Quality, Chemical Manufacturing

Introduction

Contemporary financial reporting environments demand rigorous earnings quality assessment frameworks that facilitate informed stakeholder decision-making processes. Profit quality represents a fundamental cornerstone in evaluating corporate financial performance, significantly influencing investor confidence, creditor relationships, and overall organizational reputation within capital markets (Dechow et al., 2010; Francis et al., 2021). Organizations demonstrating superior earnings quality typically experience reduced capital costs, enhanced funding accessibility, and elevated market valuations, thereby creating sustainable competitive advantages.

Conversely, inadequate profit quality generates substantial negative consequences affecting both corporations and stakeholders systematically. When financial statements fail to accurately represent underlying economic realities, investor confidence deteriorates dramatically, precipitating investment withdrawals and subsequent stock price declines (Cohen & Zarowin, 2020). Such conditions severely constrain organizational financing capabilities, as financial institutions become increasingly reluctant to extend credit facilities or alternatively impose elevated interest rates reflecting heightened risk perceptions (Barth et al., 2023). Management teams consequently struggle to formulate effective strategic decisions based on unreliable financial information, ultimately compromising operational efficiency and cash flow stability (Dichev et al., 2021).

Furthermore, organizations face substantial regulatory sanctions, potential investor litigation, and significant reputational damage that undermines business partnerships and strategic alliances. These adverse conditions severely impede corporate expansion initiatives, including mergers and acquisitions, resulting from diminished market confidence and stakeholder trust erosion (Kim & Lee, 2022). Therefore, understanding the determinants of profit quality becomes paramount for maintaining sustainable organizational performance and stakeholder value creation within dynamic business environments.

Literature Review
Signaling Theory
Signaling theory, originally conceptualized by Spence (1973) through labor market research, addresses information asymmetry challenges between organizational management and external stakeholders. This

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theoretical framework posits that managerial actions contain informational content resulting from asymmetric information distribution between internal and external parties (Connelly et al., 2011; Scott, 2015). Positive signals indicate superior organizational performance and favorable future prospects, typically manifested through consistently increasing profitability metrics (Bhattacharya et al., 2020). Conversely, negative signals suggest operational performance deterioration and potential earnings declines, influencing stakeholder assessments regarding organizational future prospects and investment decisions (Adelopo et al., 2021).

Profit Quality

Profit quality encompasses earnings characteristics that accurately represent future organizational conditions and comprehensively reflect financial performance capabilities (Suryanto, 2017). High-quality earnings possess fundamental attributes including relevance, understandability, reliability, and comparability, enabling stakeholders to conduct effective performance evaluations and strategic decision-making processes (Dechow et al., 2010; Graham et al., 2020). Superior earnings quality enhances financial statement usefulness, facilitating improved resource allocation decisions and reducing information uncertainty within capital markets (Gaio & Raposo, 2021).

Profit Persistence

Profit persistence reflects anticipated future accounting earnings attributable to current period earnings performance (Petra et al., 2018). Persistent earnings demonstrate stability and sustainability characteristics across temporal periods, indicating organizational capacity to maintain consistent profitability levels through effective operational management and competitive positioning strategies (Richardson et al., 2020; Sloan, 2021). Organizations exhibiting strong earnings persistence attract investor interest through demonstrated earnings predictability and reduced uncertainty regarding future performance trajectories (Dichev & Tang, 2022).

Potential Profit

Potential profit represents organizational capability to generate earnings within specified periods by effectively utilizing available resources and assets (Ginting, 2017). This construct encompasses management effectiveness in deploying organizational resources to maximize profitability outcomes and create sustainable value (Novy-Marx, 2020). Dechow et al. (2010) conceptualize potential profit as expected future accounting earnings implemented through current period performance achievements. Effective resource utilization translates into superior profitability metrics, reflecting management quality and operational efficiency (Lubis & Sari, 2024; Palepu et al., 2023).

Capital Structure

Capital structure encompasses the composition of financial resources employed by organizations in operational activities, incorporating both debt obligations and equity financing (Martono & Harjito, 2013). Capital structure represents the long-term financing balance determined by comparing long-term debt relative to shareholders' equity (Graham et al., 2021; Myers, 2020). Strategic capital structure decisions involve optimizing debt-equity ratios while managing associated financial risks and costs, with optimal structures minimizing weighted average capital costs thereby maximizing organizational valuations through efficient resource allocation frameworks (Frank & Goyal, 2022).

Hypotheses Development

H₁: Profit persistence demonstrates a significant positive effect on profit quality.
Higher earnings persistence indicates stable future earnings capacity, suggesting superior profit quality through reduced earnings volatility and enhanced predictability (Richardson et al., 2020).
H₂: Potential profit demonstrates a significant positive effect on profit quality.
Enhanced profitability capacity reflects effective resource utilization and operational efficiency, translating into superior earnings quality metrics (Palepu et al., 2023).
H₃: Capital structure demonstrates a significant negative effect on profit quality.

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Elevated leverage levels increase financial risk and earnings volatility, potentially compromising profit quality through heightened uncertainty and financial constraints (Frank & Goyal, 2022).

H₄: Profit persistence, potential profit, and capital structure simultaneously affect profit quality significantly. Combined effects of earnings characteristics and financing decisions collectively influence profit quality through integrated impacts on organizational performance and stakeholder perceptions (Barth et al., 2023).

Methods
Data Types and Sources
This research employs quantitative methodologies utilizing secondary data derived from corporate financial statements. Following Sugiyono (2017), quantitative research represents a methodological approach grounded in positivism philosophy, designed to examine specific populations or samples through hypothesis testing frameworks (Nazir, 2014). This investigation determines relationships between profit persistence, potential profit, and capital structure regarding profit quality outcomes. Data collection utilizes the Indonesia Stock Exchange (IDX) official website (www.idx.co.id) as the primary source, providing comprehensive and accessible financial information for chemical subsector manufacturing companies during the 2019-2023 observation period.

Variable Measurements
Dependent Variable
Profit Quality represents organizational performance in generating sustainable earnings, reflecting current operational capabilities. Following Darsono & Ashari (2010), profit quality measurement employs the following formula:

$$\textbf{Profit Quality = Operating Cash Flow / Net Profit}$$

Independent Variables
Profit Persistence reflects organizational capacity to maintain stable year-to-year profitability levels. Organizations demonstrating strong earnings persistence attract investor interest through demonstrated earnings stability. Following Persada and Martani (2010) cited in Ashma' & Rahmawati (2019), profit persistence measurement employs:

$$\textbf{Profit Persistence = (EBT } t_1 \textbf{ - EBT t) / Total Assets}$$

Potential Profit encompasses organizational capacity to generate earnings within specified periods through effective resource utilization. Dechow et al. (2010) define profit persistence as expected future accounting earnings implemented by current year earnings. Following Lubis & Sari (2024), potential profit calculation employs:

$$\textbf{Potential Profit = Net Profit After Tax / Total Assets}$$

Capital Structure represents the composition of financial resources, encompassing both liabilities and equity components. Following Hery (2016), capital structure measurement employs:

$$\textbf{DER = (Total Liabilities / Total Equity) } \times \textbf{ 100\%}$$

Data Analysis Techniques
Descriptive Statistical Analysis
Descriptive statistical analysis explains data characteristics through mean values, standard deviations, minimum values, and maximum values, providing comprehensive variable distribution understanding.

Classical Assumption Tests
Normality Test: Following Riyanto & Hatmawan (2020), normality testing determines whether collected data exhibits normal or abnormal distribution patterns, enabling appropriate statistical method selection.

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Multicollinearity Test: Following Rahmawati (2016), multicollinearity testing examines correlation presence among independent variables within regression models, ensuring model validity and reliability.

Heteroscedasticity Test: Following Ghozali (2021), heteroscedasticity testing determines whether residual variance inequality exists across observations. Effective regression models demonstrate homoscedasticity characteristics, indicating consistent residual variance patterns.

Autocorrelation Test: Autocorrelation testing examines correlation presence between current period observations and previous period observations, ensuring regression assumption compliance.

Multiple Linear Regression

Multiple linear regression analysis examines independent variable influences on dependent variables through the following equation:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y = Profit Quality

X_1 = Profit Persistence

X_2 = Potential Profit

X_3 = Capital Structure

α = Constant intercept

$\beta_1, \beta_2, \beta_3$ = Regression coefficients

ε = Error term

Hypothesis Testing

Partial Test (t-test): Partial regression coefficient testing determines significant influence presence between independent variables and dependent variables individually. Significance values (Sig) < 0.05 indicate significant influence presence.

Simultaneous Test (F-test): Simultaneous testing examines whether independent variables collectively demonstrate significant effects on dependent variables. Significance values (Sig) < 0.05 indicate significant simultaneous influence.

Coefficient of Determination (R^2): This coefficient measures model capability in explaining dependent variable variations, with values ranging from 0 to 1, indicating explanatory power magnitude.

Results and Discussion
Descriptive Statistics

Table 1. Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Deviation
Profit Persistence	-0.90	0.13	-0.0207	0.12794
Potential Profit	0.00	0.24	0.0501	0.04184
Capital Structure	0.09	2.19	0.6138	0.53301
Profit Quality	-2.70	6.99	1.5055	1.71291

Source: SPSS 26 processed results

Normality Test

The normality test results demonstrate that data exhibits standard normal distribution characteristics, with residuals distributed along the diagonal line in the Normal P-Plot diagram, confirming normality assumption fulfillment for regression analysis validity.

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Hypothesis Testing Results

Table 2. Partial Test (t-test)

Variable	B	Std. Error	Beta	t	Sig
(Constant)	0.619	0.385	-	1.608	0.114
Profit Persistence	-1.375	1.653	-0.101	-0.832	0.409
Potential Profit	4.373	4.831	0.105	0.905	0.369
Capital Structure	-1.751	0.395	-0.535	-4.434	0.000

Source: SPSS 26 processed results

Regression Equation: Profit Quality = 0.619 - 1.375(Profit Persistence) + 4.373(Potential Profit) - 1.751(Capital Structure)

Individual Effects Analysis:

1. **Profit Persistence:** The t-calculated value of -0.832 < t-table (1.671) with significance 0.409 > 0.05 indicates that profit persistence demonstrates no significant effect on profit quality, rejecting H_1.
2. **Potential Profit:** The t-calculated value of 0.905 < t-table (1.671) with significance 0.369 > 0.05 indicates that potential profit demonstrates no significant effect on profit quality, rejecting H_2.
3. **Capital Structure:** The t-calculated value of -4.434 > t-table (1.671) with significance 0.000 < 0.05 indicates that capital structure demonstrates a significant negative effect on profit quality, accepting H_3.

Table 3. Simultaneous Test (F-test)

Model	F	Sig
Regression	6.815	0.001

Source: SPSS 26 processed results

The F-test results demonstrate significance value 0.001 < 0.05 with F-calculated 6.815 > F-table 3.86, indicating that independent variables collectively demonstrate significant effects on profit quality, accepting H_4.

Table 4. Coefficient of Determination

Model	R	R Square	Adjusted R Square
1	0.521	0.271	0.231

Source: SPSS 26 processed results

The adjusted R-squared value of 0.231 indicates that profit persistence, potential profit, and capital structure explain 23.1% of profit quality variations, with remaining 76.9% influenced by alternative factors not examined in this research.

Discussion

Profit Persistence Effect on Profit Quality

Analysis results indicate that profit persistence demonstrates no significant effect on profit quality, rejecting hypothesis H_1. This finding suggests that earnings stability across temporal periods does not necessarily translate into superior profit quality within chemical manufacturing contexts. The absence of significant relationships potentially reflects industry-specific characteristics where earnings persistence fails to adequately capture operational cash flow quality or earnings manipulation possibilities (Lubis & Sari, 2024; Richardson et

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al., 2020). Alternative explanations include measurement limitations or contextual factors specific to Indonesian chemical manufacturing sector dynamics that diminish earnings persistence relevance for quality assessment purposes.

Potential Profit Effect on Profit Quality

Regression analysis demonstrates that potential profit exhibits no significant effect on profit quality, rejecting hypothesis H_2. This contradicts theoretical expectations that superior profitability capacity should enhance earnings quality through effective resource utilization demonstrations (Ardianti, 2018; Palepu et al., 2023). The insignificant relationship potentially indicates that profitability levels alone inadequately represent earnings quality dimensions, particularly regarding cash flow sustainability and earnings management practices. Chemical manufacturing sector characteristics, including capital-intensive operations and cyclical demand patterns, may diminish potential profit relevance for earnings quality evaluations within this specific industrial context.

Capital Structure Effect on Profit Quality

Analysis confirms that capital structure demonstrates a significant negative effect on profit quality, accepting hypothesis H_3. Elevated debt levels measured through Debt to Equity Ratio negatively influence earnings quality, consistent with financial leverage increasing earnings volatility and financial risk (Marlina & Idayati, 2021; Frank & Goyal, 2022). Higher leverage ratios create financial constraints that may incentivize earnings management practices to maintain debt covenant compliance or conceal financial distress signals (Graham et al., 2021). Additionally, increased debt obligations reduce operational flexibility and cash flow stability, directly compromising profit quality through heightened earnings uncertainty and reduced earnings sustainability characteristics.

Simultaneous Effects Analysis

Hypothesis testing confirms that profit persistence, potential profit, and capital structure collectively demonstrate significant effects on profit quality, accepting hypothesis H_4. This validates comprehensive evaluation approaches where multiple financial dimensions interact to influence earnings quality outcomes within chemical manufacturing contexts (Barth et al., 2023). The simultaneous significance despite individual variable insignificance suggests complex interdependencies among earnings characteristics and capital structure decisions that collectively shape profit quality perceptions and actual earnings reliability.

Conclusion

This research investigates profit persistence, potential profit, and capital structure influences on profit quality within Indonesian chemical manufacturing companies listed on the Indonesia Stock Exchange. Analysis results yield several critical conclusions:

1. **Individual Effects:** Profit persistence and potential profit demonstrate no significant individual effects on profit quality, whereas capital structure exhibits significant negative influence. These findings suggest that earnings stability and profitability capacity alone inadequately determine earnings quality within chemical manufacturing contexts, while financial leverage critically compromises profit quality through increased risk and earnings volatility.
2. **Simultaneous Effects:** All independent variables collectively demonstrate significant effects on profit quality, validating integrated assessment approaches considering multiple financial dimensions simultaneously for comprehensive earnings quality evaluation.
3. **Explanatory Power:** The research model explains 23.1% of profit quality variations, indicating substantial influence from alternative factors including corporate governance mechanisms, audit quality, earnings management practices, and macroeconomic conditions not examined within this investigation.

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Recommendations

For Future Research:

1. Incorporate additional variables influencing profit quality, including corporate governance mechanisms, audit quality dimensions, and earnings management proxies
2. Extend research to alternative industrial sectors listed on IDX for comparative analysis and generalizability enhancement
3. Utilize extended observation periods incorporating more recent financial data for improved result relevance and temporal pattern identification
4. Employ alternative profit quality measurement approaches for robustness validation and comprehensive construct assessment

For Practitioners:

1. Financial managers should carefully manage capital structure decisions, recognizing leverage impacts on earnings quality and stakeholder perceptions
2. Investors should adopt comprehensive financial analysis frameworks incorporating multiple dimensions beyond isolated profitability or persistence metrics
3. Regulators should enhance financial reporting quality monitoring, particularly regarding high-leverage organizations vulnerable to earnings management practices

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