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Profitability, Cash Holdings, and Firm Value: Evidence from Indonesian Manufacturing Companies

Sutari Sri Rejeki¹

¹Department of Management, Faculty of Economics and Business, Universitas STEKOM, Semarang, Indonesia

*Corresponding author¹: sutarirejeki@stekom.ac.id

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ABSTRACT

Purpose – This study examines the association of profitability and cash holdings with firm value among manufacturing companies listed on the Indonesia Stock Exchange (IDX). **Design/methodology/approach** – Using an unbalanced panel of 938 firm-year observations from 261 manufacturing companies over 2021–2024, sourced from Bloomberg, this study estimates a firm- and year-fixed-effects model with firm-clustered standard errors. Firm value is measured by Tobin's Q, profitability by return on assets (ROA), and cash holdings by the ratio of cash and cash equivalents to total assets, with firm size, leverage, and sales growth as controls. Model-selection tests (Breusch–Pagan LM, F-test, Hausman) support the fixed-effects specification. **Findings** – ROA correlates positively with Tobin's Q, and pooled ordinary least squares (OLS) yields a large positive coefficient, but this weakens under random effects and reverses to negative and significant under fixed effects, indicating that the conventional positive profitability–value relationship is mainly a between-firm rather than a within-firm phenomenon. Cash holdings show no significant association with firm value. Sales growth are negatively associated with firm value, while firm size and leverage are not significant. **Research limitations/implications** – The four-year window and the exclusive focus on manufacturing firms limit generalisability; the linear cash-holdings specification cannot capture non-linear effects; and the low within-R² suggests that unobserved factors remain unexplored. **Originality/value** – By isolating within-firm variation through fixed effects, this study shows that profitability and cash reserves do not automatically raise market valuation, challenging assumptions in much of the pooled cross-sectional literature on Indonesian firms.

INTRODUCTION

Firm value is widely regarded as a key benchmark of managerial performance because it reflects how the capital market prices a company's current condition and prospects simultaneously. In the manufacturing sector, this benchmark carries particular weight: manufacturing is capital-intensive, exposed to high production costs, and subject to intense efficiency pressure and global competition, so a firm's demonstrated ability to convert assets into earnings and to manage liquidity is closely watched by investors (Brigham & Ehrhardt, 2013; Dewi & Rahyuda, 2025). Two financial characteristics that recur in this discussion are profitability and cash holdings, both of which are commonly assumed to shape investors' assessment of a firm's prospects. However, the empirical evidence linking them to firm value remains far from settled.

Signalling theory offers the classical rationale for expecting profitability to raise firm value: high profitability signals favourable prospects to the market, which should increase investor confidence, raise demand for the firm's shares, and ultimately lift its valuation (Ross, 1977). Consistent with this reasoning, a considerable body of research on Indonesian and other listed firms reports a positive and significant relationship between profitability, generally proxied by return on assets (ROA), and firm value proxied by Tobin's Q (Evianti et al., 2025; Fatima, 2023; Gustyana et al., 2021; Matunni' Mah et al., 2024; Raharjanti et al., 2025; Zuhroh, 2019). Nearly all of these studies, however, rely on pooled ordinary least squares (OLS), random effects, or moderated regression using cross-sectional data or short panels. These estimators combine between-firm differences (why more profitable firms are valued differently from less profitable firms) with within-firm changes (whether a given firm's valuation moves when its own profitability changes). Because the two sources of variation can point in different directions, a positive pooled coefficient does not necessarily imply that an increase in profitability within the same firm is rewarded by the market.

A parallel debate surrounds cash holdings. The precautionary motive in liquidity preference theory suggests that firms hold cash to buffer uncertain future cash flows and preserve the flexibility to fund investment when external financing is costly or constrained (Keynes, 1936). However, the literature disagrees on how cash holdings relate to firm value. Building on the precautionary motive, several studies find that cash reserves raise firm value, especially among firms operating where external financing is constrained, or macroeconomic conditions are volatile (Anton & Nucu, 2019; Farooq & Pashayev, 2023). Jensen & Meckling (1976) and Jensen (1986) offer a different account: once cash sits under managerial control, little stops it from being funnelled into unproductive projects or investments with a negative net present value (NPV) that serve managers more than shareholders, and markets that anticipate this tend to discount rather than reward large cash balances (Afifa et al., 2021; Asante-Darko et al., 2018; Moolchandani & Kar, 2022). The trade-off theory of corporate cash holdings sits between these two positions, treating the cash–value relationship as non-linear rather than linear: value rises with cash up to some optimal point, beyond which opportunity costs and agency conflicts start to outweigh the benefits (Chireka & Moloi, 2024; El-Ansary & Hamza, 2023; Myers, 1977; Opler et al., 1999).

Two gaps therefore remain. First, the profitability evidence rarely separates within-firm from between-firm variation. Second, the cash-holdings evidence is contested, with positive, negative, and non-linear relationships all reported. This study addresses these gaps with a firm- and year-fixed-effects model estimated on an unbalanced panel of Indonesian manufacturing companies. The approach isolates within-firm variation, so any time-invariant firm characteristics and common shocks that a pooled or random-effects specification would leave in the error term are absorbed instead. Cash holdings are treated as an independent variable that jointly determines firm value alongside profitability, rather than as a mediator of profitability's effect, which allows the direct, unconditional relationship between each variable and Tobin's Q to be estimated cleanly. This study contributes by combining this within-firm estimation strategy with firm-clustered standard errors on a relatively large, recent Indonesian manufacturing sample (2021–2024). The 2021–2024 window also spans the pandemic recovery and its aftermath, which makes it a useful period for examining how the market values profitability and liquidity.

Building on this background, the objectives of this study are to examine the effect of profitability, proxied by ROA, on the firm value of manufacturing companies listed on the Indonesia Stock Exchange (IDX), and to examine the effect of cash holdings on the firm value of the same companies, after controlling for firm size, leverage, and sales growth.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Agency Theory

Agency theory frames the firm as a nexus of contracts between principals (shareholders) and agents (managers), whose interests do not always coincide (Jensen & Meckling, 1976). Managers do not bear the full risk of their decisions, creating room to act in ways that do not necessarily serve shareholders, such as holding more cash than operations require (Fama & Jensen, 1983). Eisenhardt (1989) adds that information asymmetry exacerbates this problem: shareholders cannot verify, at reasonable cost, whether managers are acting in the firm's best interest or their own. For corporate liquidity in particular, this logic suggests that cash beyond what operations require can destroy value rather than create it, since it gives managers more discretion without any matching increase in oversight.

Signalling Theory

Signalling theory starts with an information gap: insiders know more about a firm's true condition than outside investors, so firms with strong prospects have an incentive to signal this through observable financial results (Ross, 1977). Profitability works well as such a signal: a firm that uses its assets efficiently and is managed competently should, in principle, earn more investor confidence in future cash flows and, as a result, a higher market valuation (Raharjanti et al., 2025). This channel underpins the usual expectation, found throughout the literature reviewed above, that profitability and firm value move together.

Liquidity Preference and Trade-Off Theory of Cash Holdings

Keynes (1936) was among the first to identify the precautionary motive: firms hold liquid balances as a cushion against shortfalls in operating cash flow or unexpected investment opportunities, and this becomes more important the harder future cash flows are to predict. The trade-off theory of cash holdings applies this idea more directly to corporate finance, framing it as a balance between the benefits of holding cash (lower transaction and underinvestment costs) and its costs, namely the agency and opportunity costs discussed (Myers, 1977; Opler et al., 1999). This balance yields a non-linear prediction: value should rise with cash up to an optimal point, then fall beyond it (Chireka & Moloi, 2024; El-Ansary & Hamza, 2023). Because the present study specifies a linear relationship, it is best positioned to detect a net effect over the observed range of cash ratios rather than to identify the turning point itself.

Firm Value

Firm value is the market's overall assessment of a company, reflecting not only current performance but also the growth options and risks that investors price in for the future. Tobin's Q captures this well: it is the ratio of a firm's market value to the replacement cost of its assets, which means it draws on both equity-market information and balance-sheet data. That combination is part of why it is used so widely; it is also comparable across firms of different sizes and capital structures (Gustyana et al., 2021; Zuhroh, 2019).

Profitability and Firm Value

Return on assets (ROA), the proxy used here for profitability, reflects how efficiently management converts total assets into net income. It is a common choice in firm-value research partly because, unlike equity-based ratios such as return on equity (ROE), it is less sensitive to

how a firm is financed (Matunni' Mah et al., 2024). Signalling theory predicts that higher profitability should raise firm value. This prediction is broadly supported by prior studies on tourism and hospitality firms (Matunni' Mah et al., 2024), mining firms (Raharjanti et al., 2025), automotive firms (Gustyana et al., 2021), and cross-industry Indonesian samples (Zuhroh, 2019), as well as by evidence from Saudi Arabian firms (Fatima et al., 2024) and food and beverage firms (Dewi & Rahyuda, 2025). However, most of this evidence comes from pooled or random-effects estimates. It may therefore reflect the fact that structurally more profitable firms are also structurally more highly valued, rather than showing that a firm's own profitability improvements are rewarded by the market. Signalling theory and prior studies agree that profitability should matter for firm value. However, once stable differences between firms are removed, neither the theory nor the existing evidence clearly predicts the direction of the within-firm relationship, because a rise in profitability may signal stronger prospects or reflect cost-cutting or a maturing business. This study therefore tests the following non-directional hypothesis:

H1. Profitability has a significant association with firm value.

Cash Holdings and Firm Value

In this study, cash holdings refer to the ratio of cash and cash equivalents to total assets, that is, the amount of internally generated liquidity a firm chooses to retain rather than distribute or reinvest (Fatima et al., 2023). Two theoretical channels point in opposite directions regarding the implication for firm value. Under the precautionary motive, cash builds financial flexibility and resilience, and firms operating with limited access to external financing should see that reflected in a higher valuation (Anton & Nucu, 2019; Farooq & Pashayev, 2023). The agency channel implies the opposite: more cash means more managerial discretion and, with it, more room for investments that destroy rather than create value, which the market should, in theory, discount (Afifa et al., 2021; Asante-Darko et al., 2018; Moolchandani & Kar, 2022). Given that these two channels point in opposite directions, and that trade-off theory suggests the net outcome depends on where a firm sits relative to its optimal cash level (Chireka & Moloi, 2024; El-Ansary & Hamza, 2023), a non-directional hypothesis is therefore appropriate:

H2. Cash holdings have a significant association with firm value.

Control Variables

The model includes firm size as the natural logarithm of total assets. Larger firms tend to benefit from economies of scale and can more easily access external financing, and prior studies link size to higher firm value (Astuti et al., 2019; Dewi & Rahyuda, 2025). This study includes leverage, measured by the debt-to-equity ratio (DER), because capital structure affects both financial risk and the extent to which debt disciplines managerial behaviour, although the Indonesian literature is mixed on the direction of this relationship (Willim, 2022; Zuhroh, 2019). Sales growth is the final control variable and serves as a proxy for a firm's investment opportunities and near-term demand, both of which investors typically consider when valuing a company (Dewi & Rahyuda, 2025).

RESEARCH METHODOLOGY

This study adopts a quantitative, explanatory (causal-associative) research design to test the hypothesised effects of profitability and cash holdings on firm value. The population comprises manufacturing companies listed on the IDX, observed over the 2021–2024 period.

Firm-level financial data were obtained from Bloomberg. The sample was selected using purposive sampling, based on the completeness of the required financial data for each firm-year; firms with missing or non-comparable data on any of the study's variables in a given year were excluded from that year's observation. In addition, 226 cash-holdings observations were excluded because unit inconsistencies in the source data produced implausible ratios above one. The resulting sample is an unbalanced panel of 938 firm-year observations drawn from 261 manufacturing companies. To limit the influence of extreme values, this study winsorised all continuous variables at the 1st and 99th percentiles.

Firm value, the dependent variable, is measured by Tobin's Q. Profitability, the first independent variable, is measured by ROA. Cash holdings, the second independent variable, are measured as the ratio of cash and cash equivalents to total assets. Firm size is measured as the natural logarithm of total assets, leverage is measured by the debt-to-equity ratio (DER), and sales growth is measured as the year-on-year percentage change in sales revenue. Because sales growth for the first observation year (2021) requires prior-year (2020) sales revenue as the base for the percentage-change calculation, the study retrieved 2020 sales data from Bloomberg solely to construct this variable. The year 2020 itself is not included as an observation year in the panel, so the estimation sample remains 938 firm-year observations spanning 2021–2024. Table 1 summarises these measurements, and their theoretical justification is provided in the preceding section.

Table 1. Operationalisation of Research Variables

Type	Variable	Measurement
Dependent	Firm Value	Tobin's Q
Independent	Profitability	Return on Assets (net income / total assets)
Independent	Cash Holdings	Cash and cash equivalents / total assets
Control	Firm Size	Natural logarithm of total assets
Control	Leverage	Debt-to-Equity Ratio
Control	Sales Growth	$(Sales_t - Sales_{t-1}) / Sales_{t-1}$

Source: Compiled from the research design of this study (2026).

The empirical model is specified as follows:

$$Tobin'sQ_{it} = \alpha + \beta_1 ROA_{it} + \beta_2 CashHoldings_{it} + \beta_3 FirmSize_{it} + \beta_4 DER_{it} + \beta_5 SalesGrowth_{it} + \mu_i + \lambda_t + \varepsilon_{it}$$

where subscripts i and t denote the firm and year, respectively; α is the intercept; β_1 – β_5 are the coefficients to be estimated; μ_i captures firm fixed effects; λ_t captures year fixed effects; and ε_{it} is the idiosyncratic error term. All models were estimated using Stata.

The choice of estimator was guided by a standard panel-data specification testing procedure. A Breusch–Pagan Lagrange multiplier test was used to determine whether a panel estimator is preferable to pooled OLS; an F -test was used to determine whether firm fixed effects are jointly significant relative to pooled OLS; and a Hausman test was used to choose between fixed effects and random effects. Variance inflation factors (VIFs) were computed to check for multicollinearity among the independent, control, and year-indicator variables. Firm and year fixed effects were included in the final specification, and standard errors were clustered at the firm level. This addresses the serial correlation and heteroskedasticity that tend

to arise within firms over time, and is consistent with current guidance on panel-data inference (Abadie et al., 2023; MacKinnon et al., 2023).

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2. Descriptive Statistics

Variable	N	Mean	SD	Min	p25	Median	p75	Max
Tobin's Q	938	1.3033	0.9969	0.2027	0.7375	0.9796	1.4796	5.7182
ROA	938	0.0497	0.0863	-0.1910	0.0061	0.0406	0.0889	0.3361
Cash Holdings	938	0.1179	0.2000	0.0000	0.0019	0.0204	0.1343	0.9126
Firm Size	938	27.8803	2.1395	16.9228	26.5529	27.9628	29.2447	33.4255
DER	938	0.7104	1.1613	0.0000	0.0728	0.3536	0.8320	8.5835
Sales Growth	938	0.1673	0.5033	-0.7297	-0.0451	0.0812	0.2581	3.1089

Source: Authors' calculations based on Bloomberg, processed with Stata (2026).

Table 2 presents the descriptive statistics. The sample firms have an average Tobin's Q of 1.3033, indicating that, on average, the market values sample firms above the replacement cost of their assets, although the median of 0.9796 indicates that at least half of the firms are valued below that cost. Average ROA is 0.0497 (median 0.0406), indicating modest but positive profitability with mild right skewness. Cash holdings show a markedly different pattern: the mean of 0.1179 is approximately 5.8 times the median of 0.0204, indicating that the distribution is strongly right-skewed – most manufacturing firms in the sample hold a small cash buffer, while fewer firms hold very large cash reserves (up to 91.26% of total assets), pulling the mean well above the typical firm's position. This skew is consistent with the idea that cash policy varies sharply across firms based on financing constraints, growth stage, and governance, rather than clustering around a common target ratio.

Correlation Analysis

Table 3. Pairwise Correlation Matrix

Variable	(1)	(2)	(3)	(4)	(5)	(6)
(1) Tobin's Q	1.0000					
(2) ROA	0.3472***	1.0000				
(3) Cash Holdings	-0.0177	-0.0663**	1.0000			
(4) Firm Size	0.0768**	0.0294	-0.1024***	1.0000		
(5) DER	-0.0886***	-0.3042***	-0.0757**	0.0237	1.0000	
(6) Sales Growth	0.0104	0.0604*	0.0389	0.0119	0.0848***	1.0000

*Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Source: Authors' calculations based on Bloomberg data, processed with Stata (2026).*

The bivariate correlation between ROA and Tobin's Q (Table 3) is positive and statistically significant at the 1% level ($r = 0.3472$; $p < 0.01$), consistent with signalling theory and with the pooled cross-sectional evidence widely reported in the Indonesian firm-value literature. By

contrast, cash holdings show a small, statistically insignificant correlation with Tobin's Q ($r = -0.0177$; $p = 0.588$), foreshadowing the null result from the multivariate fixed-effects model reported below. Among the explanatory variables, the highest absolute correlation is between ROA and DER ($r = -0.3042$), which remains well below the conventional threshold (typically 0.80–0.90) at which multicollinearity would be a serious concern for regression estimation.

Panel Model Selection and Multicollinearity

Before estimating the main model, this study conducted a series of specification tests to determine the appropriate panel estimator, as summarised in Table 4.

Table 4. Panel Model Selection Tests

Test	Statistic	p-Value	Decision
Breusch–Pagan LM	$\bar{\chi}^2(01) = 479.93$	< 0.001	Panel model preferred over pooled OLS
F-test (all $u_i = 0$)	$F(260, 669) = 8.70$	< 0.001	Firm fixed effects preferred over pooled OLS
Hausman test	$\chi^2(8) = 64.85$	< 0.001	Fixed effects preferred over random effects

Source: Authors' calculations based on Bloomberg data, processed with Stata (2026).

The Breusch–Pagan LM test strongly rejects pooled OLS in favour of a panel estimator. The F-test confirms that firm fixed effects are jointly significant ($F(260, 669) = 8.70$; $p < 0.001$), and the random-effects model estimated for comparison shows an intraclass correlation of $\rho = 0.6603$, meaning that approximately 66% of the total variance in Tobin's Q is attributable to stable, firm-specific differences (u_i) rather than within-firm, year-to-year variation. The Hausman test result ($\bar{\chi}^2(8) = 64.85$; $p < 0.001$) indicates a systematic correlation between the firm-specific effects and the explanatory variables, so the fixed-effects estimator, which remains consistent under this condition, is preferred over random effects, whose consistency requires the stronger assumption that firm effects are uncorrelated with the regressors.

Table 5. Variance Inflation Factors

Variable	VIF	1/VIF
ROA	1.13	0.8859
Cash Holdings	1.03	0.9714
Firm Size	1.01	0.9875
DER	1.13	0.8826
Sales Growth	1.06	0.9412
Year 2022	1.58	0.6342
Year 2023	1.63	0.6143
Year 2024	1.58	0.6337
Mean VIF	1.27	

Source: Authors' calculations based on Bloomberg data, processed with Stata (2026).

Table 5 reports the VIFs. Each VIF is well below the conventional threshold of 10, and even the highest value (1.63 for the Year 2023 indicator) is modest. The mean VIF of 1.27

indicates that multicollinearity is not a material concern in this specification and is unlikely to distort the coefficient estimates or their standard errors.

Comparing Pooled, Random-Effects, and Fixed-Effects Estimates

To illustrate the consequence of the model-selection tests, Table 6 reports the ROA coefficient from all three estimators (pooled OLS, random effects, and firm fixed effects) side by side.

Table 6. The ROA–Tobin’s Q Relationship Across Estimators

Estimator	ROA Coefficient	Std. Error	p-Value	Interpretation
Pooled OLS	+4.0943	0.3760	< 0.001	Large positive, highly significant
Random Effects	+0.6636	0.3587	0.064	Small positive, not significant at 5%
Fixed Effects (clustered SE)	−0.9529	0.4822	0.049	Negative, significant at 5%

Source: Authors’ calculations based on Bloomberg data, processed with Stata (2026).

This progression is informative. Pooled OLS, which does not distinguish between between-firm and within-firm variation, produces a large and highly significant positive coefficient (+4.0943), consistent with the positive bivariate correlation reported in Table 3 and with the bulk of the pooled cross-sectional literature. Once firm-level heterogeneity is partly absorbed through the random-effects generalised least squares (GLS) estimator, the coefficient shrinks by roughly 84% and loses significance at the 5% level (+0.6636; $p = 0.064$). Once firm heterogeneity is fully absorbed through fixed effects, the coefficient not only shrinks further but reverses sign, becoming negative and significant (−0.9529; $p = 0.049$). Because the Hausman test indicates that the random-effects assumption of no correlation between firm effects and the regressors does not hold in this sample, the fixed-effects estimate is the consistent one. The pattern across the three rows of Table 6 supports the interpretation that the positive profitability–value association reported in most prior Indonesian studies is primarily a between-firm phenomenon rather than a within-firm one.

Main Regression Results

Table 7. Firm and Year Fixed-Effects Regression Results (Dependent Variable: Tobin’s Q)

Variable	Coefficient	Clustered SE	p-Value	Conclusion
ROA	-0.9529	0.4822	0.049	Significant negative at 5%
Cash Holdings	-0.0757	0.2763	0.784	Not significant
Firm Size	0.0600	0.0573	0.296	Not significant
DER	-0.0370	0.0259	0.154	Not significant
Sales Growth	-0.0860	0.0439	0.051	Significant negative at 10%
Year 2022	-0.1161	0.0422	0.006	Significant negative at 1%
Year 2023	-0.1388	0.0588	0.019	Significant negative at 5%
Year 2024	-0.1220	0.0602	0.044	Significant negative at 5%

Source: Authors' calculations based on Bloomberg data, processed with Stata (2026). N = 938 firm-year observations; 261 firms. Reference year: 2021. Within $R^2 = 0.0231$; $F(8, 260) = 1.88$; $p = 0.0633$; $\rho = 0.7462$; firm fixed effects: yes; year fixed effects: yes; standard errors clustered by firm: yes.

The Association of Profitability with Firm Value

Table 7 shows that ROA has a negative, statistically significant effect on Tobin's Q ($\beta = -0.9529$; $p = 0.049$). H1 is therefore supported, although the direction is unexpected: it runs opposite to signalling theory (Ross, 1977) and to several prior studies (Evianti et al., 2025; Fatima et al., 2023; Gustyana et al., 2021; Suteja et al., 2023). A one-percentage-point increase in ROA is associated with a decrease of approximately 0.0095 in Tobin's Q, holding the other variables constant.

This finding does not imply that profitability generally harms firm value; rather, it reflects what the fixed-effects estimator is designed to capture, and Table 6 makes the mechanism explicit. By absorbing time-invariant firm characteristics, the model isolates within-firm variation: it asks whether a firm's valuation moves when that same firm's profitability changes relative to its own historical pattern, rather than comparing profitability levels across different firms. The negative within-firm coefficient suggests that when a manufacturing firm's ROA rises above its typical level, the market does not automatically respond with a higher valuation and, on average, values the firm slightly lower. Several explanations are plausible, although none were tested in this study. First, a jump in profit could come from cutting costs or scaling back investment rather than improved fundamentals, which might signal slower growth ahead rather than faster growth. Second, some of these firms may have reached a mature, highly profitable stage where the market has little growth left to price in. Third, investors may weight expected future growth more heavily than current-period earnings, especially once profitability appears to have plateaued. Fourth, investors may have already anticipated and priced in earnings information before the relevant financial statements were released. Finally, a given increase in profitability may not yet be perceived by the market as sustainable, especially over a single fiscal year, an interpretation consistent with recent evidence that profitability does not uniformly raise firm value once firm heterogeneity is controlled (Andriosaia et al., 2025; Hadisoewono & Ekdajaja, 2024; Valencia, 2025).

This interpretation is reinforced by the estimator comparison in Table 6: pooled OLS, consistent with much of the extant Indonesian literature (Gustyana et al., 2021; Matunni' Mah et al., 2024; Raharjanti et al., 2025; Zuhroh, 2019), yields a large positive coefficient because more profitable firms, taken as a group, do tend to command higher valuations than less

profitable firms. The fixed-effects result does not contradict that cross-sectional pattern; it decomposes it and shows that the within-firm component, an improvement in a given firm's own profitability, is not what drives that pattern. This distinction matters for how the finding should be read by managers and investors: sustained differences in profitability across firms remain associated with differences in valuation, but a firm should not expect a short-run improvement in its own ROA to be mechanically rewarded by the market.

The Association of Cash Holdings with Firm Value

Cash holdings show no statistically significant effect on Tobin's Q ($\beta = -0.0757$; $p = 0.784$), so H2 is not supported. This is consistent with the near-zero bivariate correlation reported in Table 3 ($r = -0.0177$). The size of a firm's cash reserves, by itself, does not appear to be information that the market treats as decisive in pricing manufacturing firms in this sample.

This null result is consistent with the theoretical tension outlined earlier. One strand of the literature, built around the precautionary motive and financial flexibility, expects cash to raise value by cushioning firms against distress (Anton & Nucu, 2019; Farooq & Pashayev, 2023). The agency-cost literature expects the opposite; excess cash lowers value by giving managers more room to spend it on projects that do not serve shareholders (Afifa et al., 2021; Asante-Darko et al., 2018; Jensen, 1986; Moolchandani & Kar, 2022). If both channels are present in the sample and operate with roughly offsetting magnitudes across firms with different governance quality, investment opportunities, and dividend policies, a linear specification averaged across the whole sample could plausibly detect no net effect even though the underlying relationship is economically meaningful for particular subgroups of firms. This reading is reinforced by the descriptive evidence in Table 2: cash holdings are strongly right-skewed (mean approximately 5.8 times the median), meaning that a single linear coefficient estimated across the whole sample may be disproportionately influenced by a small number of very high-cash firms whose value implications may differ sharply from those of the many low-cash firms that make up the bulk of the sample. It is also consistent with the trade-off theory's prediction of a non-linear, optimal-cash-level relationship between cash holdings and firm value (Chireka & Moloi, 2024; El-Ansary & Hamza, 2023; Myers, 1977; Opler et al., 1999), which a single linear coefficient is not designed to capture. The result also echoes evidence that the cash–value relationship depends on governance and ownership structure (Afifa et al., 2021; Moolchandani & Kar, 2022), factors the present specification does not model directly.

Control Variables and Year Effects

Firm size ($\beta = 0.0600$; $p = 0.296$) and leverage ($\beta = -0.0370$; $p = 0.154$) are not statistically significant in this specification, indicating that, within the same firm over time, changes in asset scale or debt-to-equity structure are not systematically associated with changes in Tobin's Q in this sample. Sales growth is negatively and significantly associated with firm value at the 10% level ($\beta = -0.0860$; $p = 0.051$). Combined with the profitability result, this suggests that markets may discount recent operating momentum (sales growth, profitability gains) rather than reward it outright, possibly because rapid growth or margin improvement raises questions about sustainability or is accompanied by rising investment needs that are not immediately reflected in current valuation.

The year indicators show a consistent pattern. Compared with the 2021 baseline, Tobin's Q is significantly lower in every subsequent year: 2022 ($\beta = -0.1161$; $p = 0.006$), 2023 ($\beta = -0.1388$; $p = 0.019$), and 2024 ($\beta = -0.1220$; $p = 0.044$). None of the firm-level variables in the

model explain this; it looks more like a common downward shift in manufacturing-firm valuations that affected all sample firms during the same period, which may reflect broader macroeconomic conditions, such as post-pandemic normalisation, tighter interest rates, or increased investor risk aversion. However, these explanations were not tested here. Including year fixed effects is therefore important: without them, the model could absorb some of this common shock into the coefficients on firm-level variables, particularly sales growth and profitability, since both likely move with the broader business cycle.

The overall explanatory power of the model is modest: the within R^2 is 0.0231, and the model F -statistic ($F(8, 260) = 1.88$; $p = 0.0633$) is significant only at the 10% level. This suggests that, while the estimated coefficients on ROA, sales growth, and the year indicators are individually significant, the fixed-effects specification captures only a small share of the within-firm variation in Tobin's Q , and other unobserved, time-varying factors, such as investment decisions, ownership structure, or market sentiment, likely play a substantial role in explaining changes in firm value that this model does not capture.

Taken together, the results in Tables 3 through 7 suggest that this sample of Indonesian manufacturing firms may be priced more on the market's assessment of the sustainability and intent behind financial performance than on the raw magnitude of accounting profitability or liquid reserves. This is broadly consistent with the view that Indonesian capital markets, like many emerging markets, are still developing in terms of information efficiency and analyst coverage, so that accounting signals may be processed with a lag or discounted until corroborated by other evidence, such as dividend announcements, capital expenditure decisions, or governance disclosures (El-Ansary & Hamza, 2023; Moolchandani & Kar, 2022).

CONCLUSION

This study examined the effect of profitability and cash holdings on the firm value of 261 manufacturing companies listed on the IDX over 2021–2024, using 938 firm-year observations and a firm- and year-fixed-effects estimator with firm-clustered standard errors. The bivariate correlation and pooled OLS estimates both show a positive, significant association between ROA and Tobin's Q . However, this association shrinks and loses significance at the 5% level under random effects and reverses to a negative, significant effect once firm fixed effects are applied, indicating that within-firm improvements in profitability are not consistently rewarded by the market with a higher valuation, even though more profitable firms as a group tend to be more highly valued. Cash holdings were not found to have a significant effect on firm value in either the bivariate correlation or the fixed-effects estimates, which may suggest that the market evaluates cash reserves in conjunction with their intended use and governance context rather than their magnitude alone; this is reinforced by the strongly right-skewed distribution of cash holdings observed in the descriptive statistics. Firm size and leverage were not significant, sales growth showed a negative effect at the 10% significance level, and the year indicators point to a common downward shift in valuations across 2022–2024 relative to 2021. Taken together, these findings indicate that accounting profitability and the availability of cash do not automatically translate into higher market valuation for manufacturing firms once firm-specific heterogeneity is accounted for.

These findings carry practical implications. Managers of manufacturing firms should not assume that short-run improvements in ROA or the accumulation of larger cash reserves will, by themselves, be rewarded with a higher valuation; the market may look beyond these accounting measures toward the quality, sustainability, and intended use of profitability and

liquidity. For investors and analysts, the results caution against relying on pooled cross-sectional comparisons of profitability and firm value, since such comparisons may reflect stable between-firm differences rather than the market's response to a given firm's own performance changes.

This study has several limitations. The four-year observation window may not capture longer-run adjustment dynamics among profitability, cash policy, and firm value. The sample is restricted to manufacturing companies, so the findings may not generalise to other sectors with different capital structures or liquidity needs. Cash holdings were modelled linearly, which may understate a non-linear relationship implied by trade-off theory. Finally, the model's low within- R^2 suggests that other time-varying, firm-level factors not included in this study likely explain a meaningful share of the variation in firm value. Future research could extend the observation period, test a quadratic specification of cash holdings to identify an optimal cash level, and incorporate governance or ownership-structure variables as moderators of the cash–value relationship, in line with evidence from other markets (Afifa et al., 2021; Moolchandani & Kar, 2022).

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