

Is Firm Value Affected by the Moderating Effects of Firm Visibility? (A Study of the Indonesian Manufacturing Sector)

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ABSTRACT

This study examines the effects of dividend policy (DPR), leverage (DER), and profitability (ROE) on firm value (PBV), while investigating the moderating role of firm size among Indonesian manufacturing companies listed on the Indonesia Stock Exchange during 2019–2023. Using purposive sampling, 13 firms comprising 65 firm-year observations were selected. The data were analyzed using pooled OLS-based moderated regression analysis with mean-centered interaction terms and heteroskedasticity-robust standard errors. The results demonstrate that dividend policy ($\beta = 0.389$, $p < 0.01$) and profitability ($\beta = 0.356$, $p < 0.01$) have significant positive effects on firm value, while leverage shows no significant effect ($\beta = 0.102$, $p > 0.10$). Importantly, firm size significantly moderates the relationship between dividend policy and firm value ($\text{DPR} \times \text{SIZE}$ $\beta = 0.156$, $p < 0.05$), suggesting that dividend signals issued by larger firms elicit stronger market responses. By contrast, the $\text{DER} \times \text{SIZE}$ interaction is not significant, whereas the $\text{ROE} \times \text{SIZE}$ interaction is only marginally significant. The moderation model improves the adjusted R^2 from 0.451 to 0.523 ($\Delta R^2 = 0.072$, $p < 0.05$). This study contributes to signaling theory by providing evidence that firm size serves as a boundary condition for the effectiveness of dividend signaling in an emerging market context. The study is limited by its relatively small sample size and the use of firm size as an indirect proxy for market visibility.

KEYWORDS

Firm value
Firm size
Dividend policy
Profitability
Leverage

INTRODUCTION

A persistent empirical puzzle in corporate finance concerns why identical dividend signals issued by firms of different sizes generate divergent market responses (Chettri & Kharkongor, 2024; Tripathi et al., 2024). When large manufacturers announce dividend increases, markets respond more strongly, whereas similar announcements by smaller firms receive more muted responses. This suggests that firm size may serve as a boundary condition for signaling effectiveness, a perspective that remains underexplored in the context of Indonesian manufacturing firms during 2019–2023.

The maximization of firm value stands as the paramount objective of corporate financial management, guiding strategic decisions across dividend distribution, capital structure optimization,

and profitability enhancement (Brigham & Houston, 2021). This objective is particularly important in emerging markets such as Indonesia, where institutional characteristics—including pronounced information asymmetry, evolving regulatory frameworks, concentrated ownership structures, and developing investor protection mechanisms—create conditions that differ substantially from those of the developed markets in which most corporate finance theories were formulated and tested. Indonesia's manufacturing sector, which contributes approximately 20% of the country's GDP and employs millions of workers across thousands of firms, provides an appropriate empirical setting for examining how financial policies influence firm value under these distinctive conditions. The sector's diversity, ranging from multinational consumer goods companies to small family-owned enterprises, also provides substantial variation in firm visibility, making it well suited for testing the proposed moderating role of firm size.

The extant literature on the determinants of firm value presents persistent inconsistencies despite decades of extensive scholarly attention. Although corporate finance theories—including Miller and Modigliani's irrelevance propositions, signaling theory, trade-off theory, and agency theory—provide well-established theoretical foundations, empirical findings remain inconsistent across studies, time periods, and institutional contexts. These inconsistencies extend beyond academic debate, as they limit the practical applicability of financial theory and reduce its usefulness in informing corporate financial decisions. More importantly, they suggest that existing theoretical frameworks may not fully capture the complexity of the relationships between financial policies and firm value in real-world settings.

The relationship between dividend policy and firm value illustrates these empirical inconsistencies. Al-Hiyari et al. (2024) documented that information asymmetry negatively influences dividend payments in UAE markets, suggesting that interactions between the information environment and payout policies may complicate conventional signaling interpretations. Similarly, Almulhim et al. (2024) reported persistent dividend relevance after incorporating environmental, social, and governance (ESG) factors in Saudi Arabia, indicating that the effects of dividend policy may depend on broader corporate responsibility considerations not fully captured by traditional models. In the Indonesian context, Hartono et al. (2024) found significant dividend effects during the COVID-19 crisis, when market uncertainty was exceptionally high, whereas other studies employing comparable methodologies have reported statistically insignificant relationships during more stable periods. Similar inconsistencies are evident in the relationship between leverage and firm value. Boshnak (2023) reported positive effects consistent with the tax shield argument in Saudi Arabia, whereas Ghardallou (2023) found negative relationships in GCC economies using quantile regression, highlighting that the effects of leverage may vary across firms. These mixed findings suggest that methodological differences alone may not fully explain the observed variation and that policy–firm value relationships may be contingent on firm-specific or contextual factors that are not adequately captured by existing theoretical models.

We contend that these inconsistencies are not merely empirical noise, measurement error, or methodological artifacts—they reflect a fundamental omission in the prevailing research paradigm: the systematic failure to account for boundary conditions under which financial policies affect firm value. Specifically, firm-level characteristics—particularly firm size—may serve as crucial moderators that amplify or attenuate policy–value relationships in ways that direct-effect models cannot capture. Large firms benefit from greater visibility through extensive analyst coverage, institutional investor attention, media scrutiny, and regulatory focus (Tripathi et al., 2024). When such firms announce dividend changes, these signals reach broader, more sophisticated audiences capable of accurately decoding their implications through multiple reinforcing information channels. Conversely, smaller firms' policy signals may go entirely unnoticed or be systematically discounted due to limited

information dissemination infrastructure. This visibility mechanism provides a coherent theoretical explanation for why identical policies produce heterogeneous market responses—and why studies with different sample compositions regarding firm size report divergent findings.

Emerging evidence supports this contingency perspective. Attia et al. (2023) provided compelling evidence of size-threshold effects in the capital structure-performance nexus across MENA countries, demonstrating that the relationship between leverage and performance differs qualitatively for firms above versus below certain size thresholds. Chettri and Kharkongor (2024) demonstrated that firm age and size moderate dividend-value relationships in ways that direct-effect models completely miss. Khan et al. (2021) showed that corporate governance effects on firm value depend critically on firm characteristics. Yet this contingency perspective remains underexplored in the Indonesian context, where the combination of information asymmetry, developing capital markets, and substantial firm size heterogeneity creates ideal conditions for visibility effects to manifest strongly.

Against this backdrop, our study addresses two interconnected research questions that have both theoretical significance and practical urgency: (1) Do dividend policy, debt policy, and profitability significantly affect firm value in Indonesian manufacturing companies? and (2) Does firm size moderate the relationships between these financial policies and firm value? These questions are particularly salient for the 2019-2023 period, which encompasses the full arc of recent economic turbulence—pre-pandemic normalcy in 2019, the unprecedented COVID-19 disruption in 2020-2021, and the complex post-pandemic recovery in 2022-2023—providing rich variation in macroeconomic conditions that enhances the external validity of our empirical analysis and allows us to assess whether our findings represent stable structural relationships or merely reflect particular economic circumstances.

This study offers three contributions. First, it provides preliminary evidence on firm size moderation of the dividend-firm value relationship in Indonesian manufacturing. By testing firm size as a potential boundary condition, the study offers initial insights into mixed dividend policy findings, though the limited sample (13 firms) warrants cautious interpretation. Second, it provides context-specific evidence from Indonesia's manufacturing sector during 2019-2023, a period offering unique insights into policy effectiveness across dramatically varying economic conditions, including the unprecedented COVID-19 shock (Ali, 2022; Krieger et al., 2021). This temporal coverage allows us to assess whether our findings represent stable structural relationships that persist across market conditions or merely reflect particular economic circumstances, substantially enhancing the reliability and generalizability of our conclusions for both academic and practical applications. Third, methodologically, the study employs Moderated Regression Analysis (MRA) with carefully constructed interaction terms, addressing the fundamental limitation of direct-effect-only models that have characterized most earlier studies. By demonstrating meaningful explanatory power gains from incorporating moderation effects—a statistically significant improvement in model fit that cannot be attributed to chance—we establish that contingency approaches offer superior explanatory and predictive power for understanding policy-value relationships in emerging markets, providing a methodological template for future research in this domain.

The remainder of this paper proceeds as follows: Section 2 develops the theoretical framework, reviews relevant literature, and derives testable hypotheses grounded in the visibility mechanism; Section 3 describes the research methodology including sample selection criteria, variable measurement approaches, and analytical techniques; Section 4 presents empirical results with detailed statistical analysis and robustness considerations; Section 5 provides comprehensive discussion linking findings to theory and prior research; Section 6 articulates theoretical and practical implications for multiple stakeholder groups; and Section 7 concludes with limitations and directions for future research.

LITERATURE REVIEW

Signaling Theory and Corporate Dividends

The foundation of modern dividend signaling theory rests on a fundamental market imperfection: information asymmetry between corporate insiders (managers) and external stakeholders (investors, creditors, analysts). This asymmetry creates both opportunities and incentives for managers to convey private information about firm quality and future prospects through observable, costly actions that cannot be easily mimicked by lower-quality firms (Spence, 1973). In corporate finance, dividend payments serve as particularly credible signals precisely because they involve actual, irreversible cash outflows that cannot be easily reversed or fabricated without genuine underlying cash generation capacity. Unlike accounting earnings that can be manipulated through accrual choices, revenue recognition timing, or expense capitalization decisions, cash dividends represent real money leaving the firm—a commitment that managers will not make unless they genuinely believe future cash flows can sustain such distributions.

The credibility of dividend signals derives from their costliness in multiple dimensions: firms cannot sustain dividend payments without genuine cash flows, dividend cuts carry severe reputational penalties that managers wish to avoid, and dividend commitments reduce financial flexibility that managers might otherwise prefer to retain. Bessler et al. (2023) demonstrated that payout policies respond systematically to information asymmetry levels following IFRS adoption, providing international evidence that dividends function as information transmission mechanisms that managers consciously use to communicate with investors. Al-Hiyari et al. (2024) extended this framework by showing that corporate governance quality moderates the information asymmetry-dividend relationship in emerging markets, suggesting that institutional factors condition signal credibility. The signaling mechanism proves especially powerful in contexts like Indonesia where alternative information channels—sophisticated analyst coverage networks, reliable credit rating agencies, robust financial media infrastructure—remain less developed than in mature markets, making dividend signals relatively more important sources of information about firm quality.

Trade-off Theory and Capital Structure Decisions

The trade-off theory posits that firms optimize capital structure by balancing the tax deductibility benefits of debt financing against expected bankruptcy costs, arriving at a target leverage ratio that maximizes firm value by exploiting the tax advantage of debt while avoiding excessive financial distress risk (Kraus & Litzenberger, 1973). In developed markets with efficient bankruptcy procedures, established bond markets, sophisticated creditor rights enforcement mechanisms, and predictable legal outcomes, this trade-off often favors moderate leverage as firms capture tax shields while maintaining adequate financial flexibility for investment and operations.

However, the optimal trade-off may differ substantially in emerging markets like Indonesia, characterized by underdeveloped corporate bond markets that limit debt financing options, concentrated banking sectors that may impose restrictive covenants, uncertain creditor rights enforcement that increases expected bankruptcy costs, higher perceived business risk that amplifies financial distress probability, and less predictable legal outcomes that make bankruptcy resolution costly and uncertain. Boshnak (2023) provided evidence from Saudi Arabia supporting trade-off theory predictions in that particular institutional context, but Ghardallou (2023) offered quantile regression evidence from GCC economies showing that leverage effects on performance vary

significantly across the firm distribution, turning distinctly negative beyond certain leverage thresholds. Mutumanikam and Adelin (2024) documented similar non-linear patterns across Indonesia, India, and Brazil, suggesting that emerging market investors may systematically weight bankruptcy concerns more heavily than tax benefits when evaluating highly leveraged firms, particularly during periods of economic uncertainty.

Agency Theory and Free Cash Flow Discipline

Agency theory addresses the fundamental conflicts of interest between principals (shareholders) and agents (managers), proposing that dividends and debt serve as disciplinary mechanisms that constrain managerial discretion over free cash flows and align managerial incentives with shareholder value maximization (Jensen, 1986). Dividend commitments force managers to distribute excess cash to shareholders rather than investing in value-destroying negative-NPV projects that might enhance managerial prestige, funding excessive perquisite consumption that benefits managers at shareholder expense, or building corporate empires that serve managerial career interests rather than shareholder wealth. Similarly, debt obligations impose hard constraints through required interest payments that reduce the cash available for managerial discretion and subject firms to external monitoring by creditors who have strong incentives to ensure loan repayment.

The agency perspective gains particular relevance in emerging markets where corporate governance mechanisms may be less developed, ownership concentration creates potential for controlling shareholder expropriation of minority interests, and weak investor protection allows greater scope for managerial self-dealing. Akhmadi (2023) demonstrated that firm size moderates the capital structure-profitability-dividend nexus in Indonesia, suggesting that agency dynamics differ systematically across the firm size distribution—larger firms may face more severe agency problems due to greater separation between ownership and control, but they also benefit from more extensive monitoring by analysts and institutional investors. Bravo et al. (2023) found that independent commissioners moderate financial policy effects during the COVID-19 pandemic, underscoring corporate governance's crucial role in mitigating agency problems and enhancing the credibility of corporate signals, particularly during periods of heightened uncertainty when information asymmetry intensifies.

The Visibility Hypothesis: Firm Size as Signal Amplifier

We introduce and develop the visibility hypothesis as the theoretical mechanism linking firm size to signal effectiveness—a relationship that has been largely overlooked in prior research despite its intuitive appeal and profound practical implications for corporate financial policy design. Larger firms command disproportionate attention from multiple information intermediaries: securities analysts who produce research reports reaching institutional investors and informing trading decisions, financial media outlets that amplify corporate news to retail investors through news wires, publications, and increasingly social media platforms, institutional investors who allocate substantial monitoring resources to their largest holdings and maintain direct communication channels with management, and regulatory bodies who prioritize oversight of systemically important firms that pose greater risks to market stability (Tripathi et al., 2024).

This visibility creates multiple reinforcing channels through which corporate signals—particularly dividend announcements—propagate to market participants and get incorporated into stock prices. Analyst reports dissect dividend changes, inferring implications for future earnings trajectories and issuing buy, hold, or sell recommendations that influence trading behavior. News

coverage brings dividend announcements to broader investor audiences through financial news wires, business publications, television programs, and increasingly, social media platforms where retail investors increasingly source investment information. Institutional investors, who often maintain direct relationships with large-firm management through investor relations programs, can seek clarification and context for dividend decisions through private channels. These multiple reinforcing channels ensure that large firms' signals reach sophisticated audiences capable of accurately decoding their implications and incorporating this information into valuations.

Conversely, smaller firms' announcements may receive minimal attention from these information intermediaries: fewer analysts cover small firms due to limited commission revenue potential, media outlets prioritize larger, more newsworthy companies that attract reader attention, and institutional investors may lack the resources to monitor extensive small-firm portfolios given the relatively small position sizes involved. Attia et al. (2023) provided compelling empirical support for size-threshold effects in the capital structure-performance nexus across MENA countries, demonstrating that policy-performance relationships differ qualitatively for firms above versus below certain size thresholds. We extend this logic to hypothesize that firm size moderates not just leverage effects but the entire spectrum of financial policy signals, with larger firms achieving systematically stronger market responses to identical policy changes due to superior signal propagation. The literature reveals three gaps: (1) most studies test only direct effects; (2) size moderation studies focus on non-Indonesian contexts; and (3) no study examines firm size moderation across multiple policy variables in Indonesian manufacturing during 2019–2023.

Hypothesis Development

Dividend Policy and Firm Value

The bird-in-hand theory (Gordon, 1963) suggests that investors prefer certain dividend income over uncertain capital gains, assigning valuation premiums to dividend-paying firms, particularly in markets characterized by high uncertainty about future returns. In Indonesia's developing capital market, where investor protection mechanisms are evolving, information asymmetry is pronounced, and alternative investment opportunities may be limited for retail investors, dividend signals carry particular weight as credible indicators of firm quality and managerial confidence. Almulhim et al. (2024) documented positive dividend-value relationships in Saudi Arabia even when controlling for ESG factors, while Hartono et al. (2024) confirmed dividend relevance during Indonesia's COVID-19 period when uncertainty was exceptionally high, and investors particularly valued the certainty of cash distributions. Prastiwi and Walidah (2022) provided additional Indonesian evidence supporting dividend relevance.

H₁: Dividend policy has a positive and significant effect on firm value.

Debt Policy and Firm Value

The leverage-value relationship is theoretically ambiguous, with competing predictions from different theoretical frameworks that may apply with varying force across institutional contexts. Trade-off theory predicts positive effects through tax shields that increase after-tax cash flows available to investors; pecking order theory suggests high leverage signals inadequate internal resources and potentially lower firm quality (Nguyen et al., 2023); agency theory proposes that debt disciplines managers but may also create underinvestment incentives when debt overhang is severe.

In the Indonesian context, Setiawan and Listiani (2022) and Oktaviani and Mulya (2022) provided mixed evidence. Given Indonesia's emerging market characteristics—including underdeveloped bond markets, concentrated banking sectors, uncertain bankruptcy outcomes, and potentially higher business risk—we hypothesize a significant but directionally uncertain effect on firm value.

H₂: Debt policy has a significant effect on firm value.

Profitability and Firm Value

Profitability represents the firm's fundamental ability to generate returns from invested capital—the ultimate source of intrinsic value that underlies all valuation models from discounted cash flow to residual income approaches. From both signaling and fundamental valuation perspectives, high profitability indicates efficient resource utilization that maximizes output from given inputs, sustainable competitive advantage that protects margins from competitive erosion, and genuine earnings power that can support dividends, reinvestment, and debt service (Budiandriani & Syahnur, 2023). The positive profitability-value relationship is among the most robust findings in corporate finance, transcending institutional contexts, market conditions, and methodological approaches. Saragih and Sembiring (2022) confirmed this relationship in Indonesian manufacturing contexts.

H₃: Profitability has a positive and significant effect on firm value.

The Moderating Role of Firm Size

Building on the visibility hypothesis developed above, we theorize that firm size moderates each policy-value relationship by amplifying signal propagation and reception through multiple information channels. Larger firms' signals reach broader, more sophisticated audiences through analyst networks that produce research reports, media coverage that amplifies announcements, and institutional investor attention that ensures professional evaluation of corporate actions (Chettri & Kharkongor, 2024). When industry leaders like Unilever Indonesia or Astra International announce dividend changes, sophisticated investors across the market ecosystem take immediate notice through multiple reinforcing channels; when small manufacturers issue identical signals, market response remains muted due to limited visibility. Suhadak et al. (2021) demonstrated that firm characteristics moderate governance-value relationships, supporting the contingency perspective. We acknowledge firm size is an indirect proxy for visibility; direct measures would strengthen future tests.

H_{4a}: Firm size positively moderates the relationship between dividend policy and firm value.

H_{4b}: Firm size moderates the relationship between debt policy and firm value.

H_{4c}: Firm size moderates the relationship between profitability and firm value.

Conceptual Framework

Figure 1 illustrates our conceptual framework integrating direct effects (H₁-H₃) and moderating relationships (H_{4a}-H_{4c}). The framework captures the dual channels through which financial policies influence firm value: direct effects operating regardless of firm characteristics that represent universal policy-value relationships, and contingent effects that depend on firm visibility as proxied by size. This integrated approach allows us to test whether policy effectiveness is universal or

conditional—a distinction with profound implications for both theory development and practical policy design.

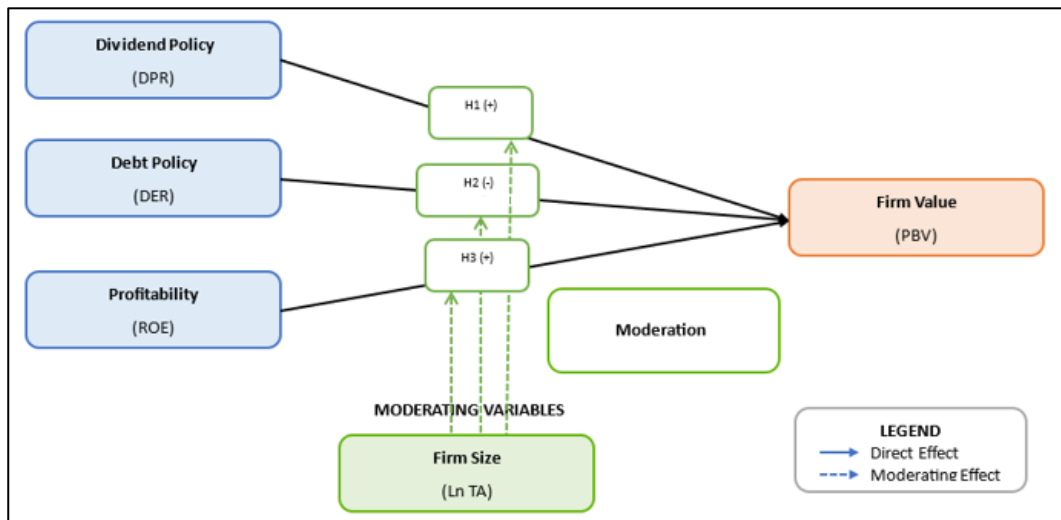


Figure 1. Conceptual Framework

RESEARCH METHOD

Research Design and Data Sources

This study employed a quantitative causal-explanatory research design to investigate the relationships between financial policies and firm value, with particular attention to the moderating effects of firm size that previous research has largely ignored. We utilized secondary data obtained from multiple authoritative sources: audited annual financial statements downloaded from the Indonesia Stock Exchange (IDX) official repository, stock price data from IDX trading records and financial data providers, and supplementary information from company annual reports and investor presentations. The longitudinal panel data approach allows for capturing both cross-sectional variation across firms that reflects firm-specific characteristics and temporal variation within firms over the 2019–2023 observation period that captures how relationships evolve across different economic conditions. This five-year window encompasses substantial macroeconomic variation—including the unprecedented COVID-19 disruption that stress-tested corporate financial policies—enhancing the robustness and external validity of our findings.

Population and Sample Selection

The population comprised all manufacturing companies listed on the Indonesia Stock Exchange during the 2019-2023 period, representing the broadest possible universe of Indonesian manufacturing firms with publicly available financial data. We applied purposive sampling with stringent criteria designed to ensure data quality, comparability across firms, and relevance to our research questions: (1) continuous listing throughout the entire observation period without delisting, suspension, or significant corporate restructuring that would complicate interpretation; (2) complete availability of all required financial statement data for computing our variables; (3)

financial statements denominated in Indonesian Rupiah to avoid exchange rate complications; (4) positive net income during the entire observation period to ensure dividend policy represents a genuine choice rather than a constraint; and (5) consistent dividend payments in each year to ensure the sample comprises firms that actively use dividends as a policy tool. These criteria yielded a final sample of 13 companies generating 65 firm-year observations, as detailed in Table 1. We acknowledge that the small sample limits generalizability and that selection criteria may introduce bias. Future research should include non-dividend-paying firms.

Table 1. Sample Selection Process

Criteria	Firms
Manufacturing companies listed on IDX (2019-2023)	195
Less: Incomplete financial data availability	(87)
Less: Financial statements not in IDR	(32)
Less: Reported net losses during observation period	(45)
Less: Inconsistent dividend payments	(18)
Final sample (companies)	13
Total observations (13 firms $\times$ 5 years)	65

Source: IDX data processed (2024)

Variable Measurement

Table 2. Operational Definition of Variables

Variable	Proxy	Formula	Scale
Firm Value (Y)	PBV	Market Price / Book Value per Share	Ratio
Dividend Policy (X_1)	DPR	Dividend per Share / EPS $\times$ 100%	Ratio
Debt Policy (X_2)	DER	Total Liabilities / Total Equity $\times$ 100%	Ratio
Profitability (X_3)	ROE	Net Income / Total Equity $\times$ 100%	Ratio
Firm Size (Z)	SIZE	Natural Logarithm of Total Assets	Ratio

Table 2 presents the operational definitions and measurement of all variables employed in this study. The dependent variable (firm value) was measured using the Price-to-Book Value (PBV) ratio, which captures market assessment of firm value relative to accounting book value and reflects investor expectations about future profitability and growth that are not captured in historical cost accounting. Independent variables included dividend policy measured by Dividend Payout Ratio (DPR), debt policy measured by Debt-to-Equity Ratio (DER), and profitability measured by Return on Equity (ROE). Firm size served as the moderating variable, measured as the natural logarithm of total assets to normalize the highly skewed distribution of firm sizes and facilitate interpretation of interaction effects in standard deviation units.

Analytical Approach and Model Specification

The data analysis employed a sequential approach designed to ensure valid statistical inference. First, descriptive statistical analysis characterized variable distributions through means, standard deviations, minimums, and maximums. Second, classical assumption tests ensured Best Linear Unbiased Estimator (BLUE) properties: normality testing via the Kolmogorov-Smirnov statistic, multicollinearity assessment through Variance Inflation Factors ($VIF < 10$ criterion), heteroscedasticity examination via the Glejser test, and autocorrelation evaluation using the Durbin-Watson statistic. Third, hypothesis testing utilized pooled OLS-based Moderated Regression Analysis (MRA) with two model specifications: Model 1 tested direct effects (H_1 - H_3) without moderation, while Model 2 incorporated interaction terms to test moderating effects (H_{4a} - H_{4c}). The change in adjusted R^2 between models quantified the incremental explanatory power from moderation effects. Statistical significance was evaluated at the 1% (***), 5% (**), and 10% (*) levels using appropriate critical values. Variables were mean-centered before constructing interactions. Heteroskedasticity-robust standard errors were used. Pooled OLS was chosen due to degrees-of-freedom constraints (13 firms).

RESULTS

Descriptive Statistics

Table 3 presents descriptive statistics for all research variables, providing essential context for interpreting our regression results. The dependent variable PBV exhibits a mean of 3.02, indicating that sample firms are valued at approximately three times their book value, suggesting robust market confidence in these dividend-paying manufacturers and their ability to generate returns exceeding their cost of capital. The substantial standard deviation (2.87) reflects considerable heterogeneity in valuation multiples across the sample, providing the variance necessary for detecting moderating effects. The range from 0.36 to 12.44 indicates that the sample includes both undervalued firms trading below book value and premium-valued firms commanding substantial market premiums.

Table 3. Descriptive Statistics

Variable	N	Min	Max	Mean	Std.Dev
PBV	65	0.36	12.44	3.02	2.87
DPR (%)	65	10.25	85.67	42.31	18.54
DER	65	0.15	2.14	0.77	0.48
ROE (%)	65	3.45	38.92	16.24	8.76
SIZE	65	26.84	33.49	29.87	1.92

Dividend payout ratios range from 10.25% to 85.67% with a mean of 42.31%, indicating diverse dividend policies across sample firms that range from conservative retention-focused strategies to aggressive distribution policies. This variation is essential for testing dividend policy effects and suggests that managers in our sample exercise genuine discretion over payout decisions rather than mechanically following industry norms. Leverage remains moderate on average (mean DER = 0.77), consistent with conservative capital structures in emerging market manufacturers that may face

higher perceived bankruptcy costs, though the range (0.15 to 2.14) indicates substantial variation in debt usage. Profitability shows healthy returns on average (mean ROE = 16.24%), with the range (3.45% to 38.92%) spanning from marginally profitable to highly profitable operations.

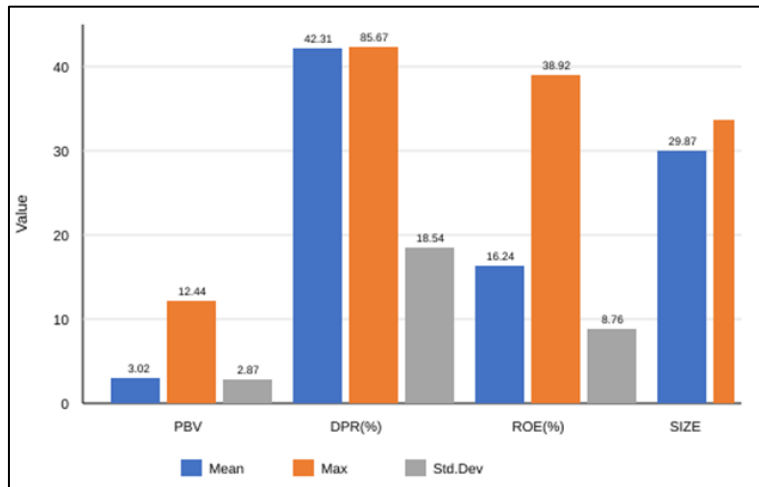


Figure 2. Descriptive Statistics of Research Variables

Hypothesis Testing Results

Table 4. Moderated Regression Analysis Results

Variable	Model 1 β	Sig.	Model 2 β	Sig.	Decision
DPR (H_1)	0.412***	0.000	0.389***	0.001	Supported
DER (H_2)	0.087	0.443	0.102	0.378	Not Supported
ROE (H_3)	0.387***	0.000	0.356***	0.002	Supported
SIZE	-	-	0.124*	0.067	-
DPR×SIZE (H_{4a})	-	-	0.156**	0.023	Supported
DER×SIZE (H_{4b})	-	-	0.078	0.312	Not Supported
ROE×SIZE (H_{4c})	-	-	0.112*	0.089	Marginal
Adjusted R^2	0.451		0.523 ($\Delta R^2=0.072^{**}$)		

Notes: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. $N=65$. Model 1: $F(3,61)=17.84$, $p < 0.001$, $R^2=0.467$, $Adj.R^2=0.451$. Model 2: $F(7,57)=10.42$, $p < 0.001$, $R^2=0.561$, $Adj.R^2=0.523$. F-change: $F(4,57)=3.06$, $p=0.024$. Simple slopes: DPR at $-1SD$ SIZE = 0.233($p=0.087$); mean = 0.389($p=0.001$); $+1SD$ = 0.545($p < 0.001$).

Table 4 presents regression results for both Model 1 (direct effects) and Model 2 (with moderation through interaction terms). Model 1 achieves an adjusted R^2 of 0.451, indicating that 45.1% of firm value variation is explained by the three financial policy variables alone—a substantial proportion for cross-sectional corporate finance research and suggesting that dividend policy, leverage, and profitability collectively explain nearly half of valuation differences across Indonesian manufacturing firms. Model 2, incorporating interaction terms between each policy variable and firm size, improves the adjusted R^2 to 0.523—a statistically significant increase of 7.2 percentage points ($\Delta R^2 = 0.072$, $p < 0.05$) that demonstrates the meaningful incremental explanatory power contributed by

moderation effects and validates our theoretical argument that policy-value relationships are contingent on firm characteristics.

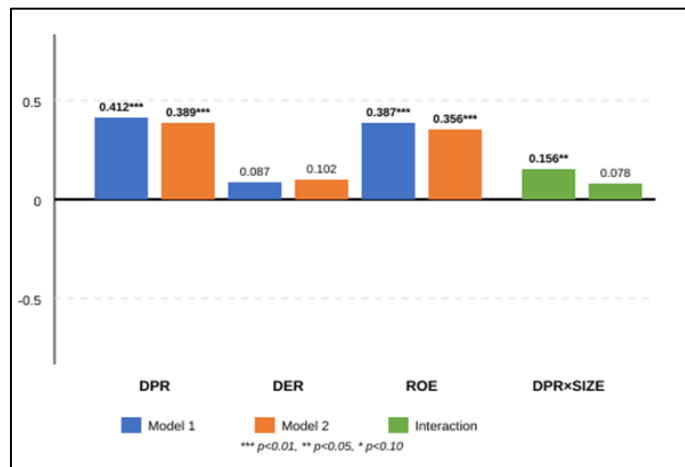


Figure 3. Regression Coefficients Comparison

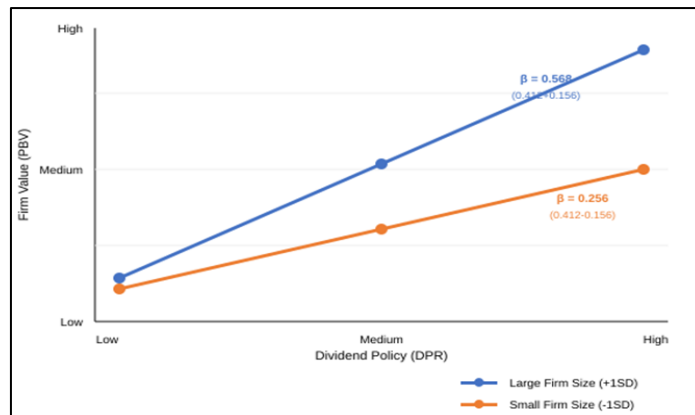


Figure 4. Moderation Effect of Firm Size on DPR-PBV Relationship

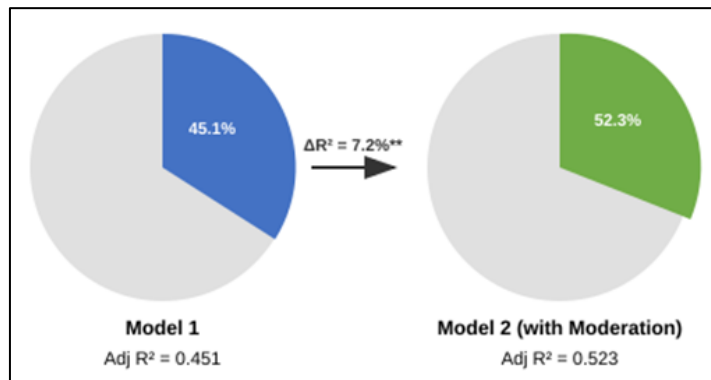


Figure 5. Model Explanatory Power Comparison

DISCUSSION

Dividend Policy and Firm Value

The highly significant positive coefficient on dividend policy confirms dividends as a powerful value creation mechanism in Indonesian manufacturing firms, providing strong empirical support for signaling theory's core predictions. This is not a marginal statistical artifact—a one standard deviation increase in dividend payout ratio elevates price-to-book value by 0.412 standard deviations, representing substantial market capitalization gains for firms that strategically increase dividend distributions.

The strong effect of dividend signaling observed in Indonesia's manufacturing sector may be explained by the institutional characteristics of emerging markets. In environments with pronounced information asymmetry where investors struggle to assess true firm quality, developing accounting standards that may allow greater earnings management, and evolving corporate governance mechanisms that create uncertainty about managerial intentions (Al-Hiyari et al., 2024), dividends represent verifiable, irreversible cash transfers that cannot be fabricated through accounting manipulation. When managers declare dividends, they are committing real cash flows—putting money where the mouth is—in ways that credibly signal confidence in future earnings sustainability. Our finding corroborates Almulhim et al. (2024) and Hartono et al. (2024), establishing that dividend relevance is the emerging market norm rather than the exception often suggested by Miller-Modigliani irrelevance propositions developed under perfect market assumptions that do not hold in practice. Therefore, this study supports H1.

Debt Policy and Firm Value

The non-significant coefficient on leverage challenges trade-off theory's universal applicability and carries important theoretical implications that merit careful consideration. This null finding is not merely statistical noise—it suggests that in Indonesia's specific institutional context, the positive tax shield effects predicted by trade-off theory and the negative bankruptcy cost effects systematically offset each other, yielding no net value impact from marginal leverage changes within the range observed in our sample.

The pecking order perspective offers an alternative interpretation that may better fit emerging market realities: sophisticated investors may interpret high leverage not as evidence of optimal tax arbitrage by sophisticated financial managers but as a signal that firms have exhausted cheaper internal financing sources and are forced to access more expensive, riskier external capital (Nguyen et al., 2023). This interpretation aligns with Ghardallou's (2023) finding that leverage effects on performance turn distinctly negative beyond certain thresholds when bankruptcy concerns begin to dominate tax benefits. Indonesian manufacturing firms' relatively conservative average leverage (mean DER = 0.77) may represent an equilibrium range where firms have already optimized their capital structures and where marginal leverage changes produce offsetting effects with no systematic value impact—a finding consistent with Irawan and Nuswantara (2024). Therefore, H2 is not supported.

Profitability and Firm Value

Profitability demonstrates robust positive effects that persist across both model specifications with remarkable stability, confirming its role as the fundamental driver of intrinsic firm value that

transcends contingent factors and institutional contexts. Unlike dividends that can be temporarily maintained through unsustainable payouts from cash reserves or borrowing, or debt levels that reflect financing choices rather than operational performance, profitability reflects genuine operational excellence that cannot be fabricated without real underlying business success—it represents the firm's fundamental ability to generate returns from invested capital that ultimately underlies all valuation models.

The remarkable stability of profitability coefficients across model specifications—remaining highly significant even after incorporating moderation effects that substantially improve model fit—suggests that this relationship operates through fundamental valuation channels that transcend contingent factors such as firm visibility. Our findings converge with Budiandriani and Syahnur (2023), Bui et al. (2023), and Natsir and Yusbardini (2020), establishing that firms generating superior returns command valuation premiums regardless of institutional context, market conditions, or firm characteristics. This universality makes profitability the most reliable policy lever for value creation across all firm types and market conditions. Thus, H₃ is supported.

The Moderating Role of Firm Size

The significant interaction term between dividend policy and firm size represents this study's core theoretical contribution to the corporate finance literature. By identifying firm size as a boundary condition for dividend signaling effectiveness, we provide a theoretical framework grounded in the visibility hypothesis that helps reconcile the conflicting findings that have plagued dividend policy research for decades and puzzled both academics and practitioners.

The firm size moderation is consistent with the visibility hypothesis, though visibility was not directly measured. The finding provides indirect support through the following logic. Large firms command disproportionate attention from securities analysts who issue research reports reaching institutional investors with substantial assets under management, financial media outlets that amplify corporate news to retail investors through multiple platforms, and institutional investors who allocate substantial monitoring resources to their largest holdings and often maintain direct communication channels with management (Tripathi et al., 2024). When industry leaders like Unilever Indonesia or Astra International announce dividend increases, the signal propagates through multiple reinforcing channels—analyst reports disseminating to trading desks, news coverage reaching retail investors, social media discussions amplifying the message—ultimately reaching sophisticated audiences capable of accurately decoding dividend implications and incorporating this information into valuations. Conversely, smaller firms' dividend signals may receive minimal attention from these information intermediaries, limiting signal propagation and muting market response regardless of the signal's informational content.

The selective moderation pattern—significant for dividends but not for leverage—provides important theoretical refinement that deepens our understanding of when visibility matters. The visibility mechanism amplifies discretionary signals such as dividend announcements that represent active managerial choices conveying new information about firm prospects, rather than structural characteristics like leverage levels that may reflect historical financing patterns, industry norms, or asset characteristics without conveying significant new information. Bankruptcy risk, by contrast, remains uniformly salient regardless of firm size—creditors and equity holders in firms of all sizes pay attention to default probability because the consequences of bankruptcy are severe. This explains why H_{4b} is rejected while H_{4a} is strongly supported, providing nuanced theoretical insight into the boundary conditions for visibility effects.

MANAGERIAL IMPLICATIONS

The findings of this study carry both theoretical and practical implications for understanding how financial policies influence firm value in Indonesian manufacturing companies, particularly regarding the contingent nature of dividend signaling effectiveness across firms of different sizes.

This study contributes to signaling theory by providing empirical evidence that firm size moderates the dividend policy–firm value relationship in the Indonesian manufacturing sector. The significant $DPR \times SIZE$ interaction term supports a contingency perspective, suggesting that the effectiveness of dividend signals is not universal but depends on firm-level characteristics. Specifically, the finding that larger firms' dividend announcements generate stronger market responses is consistent with the visibility hypothesis, which posits that larger firms benefit from greater analyst coverage, media attention, and institutional investor monitoring that amplify signal propagation to broader audiences (Tripathi et al., 2024). However, since visibility was not directly measured in this study, the moderation effect should be interpreted as indirect evidence supporting the visibility mechanism rather than definitive confirmation. The non-significant $DER \times SIZE$ interaction further refines this theoretical contribution by suggesting that the visibility mechanism amplifies discretionary signals such as dividend announcements but does not similarly affect structural financial characteristics such as leverage levels. These findings extend the work of Chettri and Kharkongor (2024) and Attia et al. (2023) to the Indonesian manufacturing context and support the broader contingency approach to corporate finance research.

For corporate managers, the significant $DPR \times SIZE$ interaction implies that dividend policy serves as a more effective value-enhancing tool for larger, more visible firms. Managers of large manufacturing companies should recognize dividend announcements as strategic signals that can meaningfully influence market valuations, while managers of smaller firms should prioritize profitability improvement as the primary value creation strategy, given that the ROE–PBV relationship remains strongly significant regardless of firm size. For investors, these results suggest that dividend announcements from larger firms carry stronger informational content about future performance prospects and may warrant greater attention in investment analysis and portfolio construction decisions. The non-significant leverage effect indicates that capital structure adjustments within the observed range do not systematically create or destroy value in this particular context. For policymakers and regulatory bodies, the findings highlight the importance of developing information infrastructure—such as expanded analyst coverage programs and dedicated small-cap disclosure platforms—to reduce information asymmetry and enhance the signaling capacity of smaller listed firms in Indonesian capital markets.

CONCLUSION

This study addresses a fundamental puzzle that has challenged corporate finance theory and practice for decades: why do identical dividend signals produce dramatically different market responses across firms? Through rigorous analysis of Indonesian manufacturing companies during the turbulent 2019–2023 period encompassing pre-pandemic stability, COVID-19 disruption, and post-pandemic recovery, we provide a compelling answer grounded in theoretical logic and robust empirical evidence: firm size serves as a critical boundary condition that determines dividend signaling effectiveness through a visibility mechanism that amplifies signals from large firms while muting those from smaller counterparts.

Our study yields three principal findings that advance both theory and practice with important implications for multiple stakeholder groups. First, dividend policy and profitability constitute the primary value drivers for Indonesian manufacturing firms, collectively explaining 45% of valuation variance—these are not marginal relationships but major determinants that managers cannot afford to ignore when making financial policy decisions. Second, debt policy shows no systematic value impact within the leverage range observed in our sample, challenging trade-off theory's universal applicability and highlighting the importance of institutional context in capital structure research that cannot be ignored. Third, and most critically, firm size substantially amplifies the dividend-value relationship through the visibility mechanism, demonstrating that signaling effectiveness is contingent on firm visibility rather than being a universal phenomenon.

Theoretically, we extend signaling theory by identifying firm size as a boundary condition that determines when and how dividend signals translate into firm value—identical dividend signals produce heterogeneous market responses depending on signaling firm visibility. This refinement helps reconcile conflicting findings that have plagued the dividend policy literature for decades by suggesting that sample composition regarding firm size explains divergent results across studies that have puzzled researchers. The significant and substantial improvement in explanatory power from incorporating moderation effects validates our contingency approach and establishes a methodological template for future research in this domain.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This study has several limitations. First, firm size is an indirect visibility proxy; future research should use analyst coverage, institutional ownership, and media mentions. Second, the small sample (13 firms, 65 observations) limits generalizability and may introduce selection bias. Third, pooled OLS does not fully exploit panel structure. Fourth, findings are specific to Indonesian manufacturing during 2019–2023.

The message emerging from this study is clear and consequential for theory and practice alike: context matters profoundly in corporate finance. Financial policies that create value for large, visible firms may prove ineffective—or even counterproductive—for smaller counterparts operating below the visibility threshold required for effective signal propagation. As Indonesian capital markets continue developing and information infrastructure expands, understanding these contingent relationships becomes increasingly vital for informed decision-making by managers designing financial policies, investors interpreting corporate signals, and policymakers seeking to enhance market efficiency. By identifying firm size as a boundary condition for dividend signaling, this study provides both theoretical refinement and practical guidance for emerging market stakeholders navigating the complex, contingent relationships between financial policies and firm value creation.

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