



Dividend Policy in ESG Firms: Corporate Governance Perspective

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Abstract

Dividend policy is important for ESG companies because it clarifies how commitments to environmental, social, and governance practices influence profit distribution to shareholders and the sustainability of firm value. This study analyzed the effects of environmental accounting and earnings quality on dividend policy, with good corporate governance (board independence) as a moderating variable, using 100 observations from IDX ESG Leaders firms during 2020–2024. A quantitative panel data approach with moderated regression analysis was applied, and the analysis was conducted in EViews using a fixed-effects panel regression model. The results indicated that environmental accounting positively influenced dividend policy, as firms that disclosed environmental costs gained greater legitimacy and more stable cash flows. Earnings quality also had a positive effect because earnings supported by cash flows increased credibility and reduced uncertainty in dividend decisions. Board independence strengthened these relationships by enhancing oversight and constraining managerial opportunism. From a policy perspective, the findings support strengthening board independence and integrating ESG considerations into dividend and governance regulations. This study is novel in jointly examining environmental accounting, earnings quality, and board independence within an ESG focused panel, providing new evidence on how governance mechanisms link sustainability and reporting quality to dividend decisions.

Keywords

Dividend policy, environmental accounting, earnings quality, corporate governance, ESG firms

INTRODUCTION

In recent years, dividend policy has evolved from being viewed solely as an internal financial decision to a strategic signal reflecting corporate governance quality, sustainability commitment, and transparency perceived by investors (Ananzeh et al., 2024; Hung et al., 2020). This shift is particularly evident among firms included in the IDX ESG Leaders index, where market expectations regarding sustainability practices and accountability continue to intensify (Wati et al., 2025). Investors increasingly evaluate not only firms' profitability but also their ability to manage environmental impacts and provide high-quality financial information (Erdogan et al., 2023; Kumar et al., 2023). Despite the common assumption that ESG-oriented firms adopt more stable and credible dividend policies, empirical evidence on the factors shaping dividend decisions in ESG firms within emerging markets, including

Indonesia, remains mixed and inconclusive.

Dividend practices among IDX ESG Leaders firms illustrate this complexity. PT Unilever Indonesia Tbk, for example, demonstrated a strong commitment to shareholder returns during the 2020 to 2024 period. In fiscal year 2023, the company reported a dividend payout ratio of 111 percent of net income, distributing total dividends of IDR 140 per share. In 2024, Unilever again announced a high dividend payout ratio of 99.7 percent, with total dividends of IDR 88 per share consisting of IDR 41 interim and IDR 47 final dividends. These figures indicate consistently high dividend payments amid economic uncertainty and rising sustainability demands. However, dividend policies among firms with high ESG scores remain diverse and have not been comprehensively analyzed in the IDX ESG Leaders context. ESG-oriented firms are often expected to allocate earnings toward sustainable investments rather than dividend distribution, which may result in substantial variation in payout ratios and requires empirical testing to better understand the link between ESG practices, earnings quality, and dividend policy in Indonesia.

Environmental accounting has become a key component of sustainability reporting, as it reflects firms' commitment to internalizing environmental costs within accounting systems and managerial decision-making processes (Almulhim et al., 2024; Masno, 2024). Drawing on legitimacy theory and agency theory, the recognition and disclosure of environmental costs function as mechanisms to obtain social legitimacy and maintain stakeholder support, including investor confidence (Ryu et al., 2025; Yilmaz et al., 2022). Firms that implement environmental accounting are generally perceived as more transparent and sustainable, which can reduce reputational pressure and contribute to more stable cash flows (Noor et al., 2025; Zahid et al., 2023). These conditions theoretically enable firms to distribute higher and more consistent dividends as a signal of confidence in long-term performance (Ellili, 2022; Yilmaz et al., 2022).

A growing body of empirical research supports a positive relationship between environmental accounting and dividend policy (Almulhim et al., 2024; Erdogan et al., 2023; Matos et al., 2020; Ryu et al., 2025). These studies suggest that companies demonstrating superior environmental performance and more extensive disclosure are more likely to offer higher dividend payments due to improved financial stability and corporate reputation. However, other studies report insignificant effects, particularly in emerging markets and within the Indonesian context (Ihsan & Zuraida, 2024). Such inconsistent findings indicate the presence of contingency factors, including corporate governance quality, which may influence the strength of the link between environmental accounting and dividend policy.

Beyond sustainability considerations, earnings quality constitutes a key driver of dividend policy because it reflects the reliability of reported earnings as a basis for dividend distribution (Pathak & Ranajee, 2020). From an agency theory perspective, high-quality earnings, commonly reflected in strong operating cash flows relative to net income, reduce information asymmetry between managers and shareholders and limit managerial opportunism (Hung et al., 2020; Pathak & Ranajee, 2020). Prior studies document a favorable association between earnings quality and dividend payments, as firms with more persistent and cash-based earnings enjoy greater financial flexibility (Hung et al., 2020; Nguyen & Bui, 2019; Pathak & Ranajee, 2020). Nevertheless, inconsistent results have also been reported (Afzal et al., 2021), further highlighting the importance of governance mechanisms in shaping dividend decisions.

Good corporate governance, particularly board independence, plays a vital oversight function in ensuring that dividend decisions align with shareholders' interests (Kanojia & Bhatia, 2022; Yakubu et al., 2022). Consistent with agency theory, a more independent board can mitigate conflicts of interest and lower the likelihood of opportunistic behavior by management or dominant shareholders (Kilincarslan, 2021; Kumar et al., 2023). Several studies find that board independence positively influences dividend payments (Chintrakarn et al., 2022; Kilincarslan, 2021; Tahir et al., 2020), although negative relationships have been observed in certain institutional contexts (Boshnak, 2021). These findings suggest that the effectiveness of independent boards is not purely direct but may also operate through interactive effects on corporate financial decisions.

Recent literature emphasizes that good corporate governance not only affects dividend policy directly but also strengthens the linkage between non-financial information and financial decision-making. Ellili (2022), Yilmaz et al. (2022), and Noor et al. (2025) show that board independence moderates and strengthens the relationship between environmental accounting and dividend policy. Similarly, Islam et al. (2022) and Siddiqui et al. (2022) find that strong governance enhances the impact of earnings quality on dividend decisions. An effective independent board is therefore expected to promote the optimal use of environmental and earnings information in dividend policy formulation, leading to more consistent and credible outcomes.

Despite relatively high ESG performance, inconsistencies persist between sustainability achievements and dividend payment stability. Long-term sustainability investments often involve trade-offs with short-term shareholder returns, as ESG-related expenditures can constrain free cash flows and increase dividend variability across firms and periods. These challenges are further amplified by differences in earnings quality and information transparency, which increase information asymmetry and investor uncertainty regarding dividend sustainability (Ellili, 2022; Pathak & Ranajee, 2020; Siddiqui et al., 2022; Yilmaz et al., 2022). In response to these empirical inconsistencies and the limited number of studies that simultaneously examine environmental accounting, earnings quality, and dividend policy while incorporating board independence as a moderating factor, this research analyzes both direct and moderating effects among IDX ESG Leaders firms during the 2020 to 2024 period. By integrating sustainability practices, financial reporting quality, and governance mechanisms within a single moderated regression framework, this study contributes to the dividend policy literature in emerging economies and offers practical insights for policymakers, capital providers, and corporate executives.

The remainder of this paper is organized as follows. The next section reviews the relevant literature on dividend policy, environmental accounting, earnings quality, and corporate governance (board independence), and develops the theoretical framework of the study. It is followed by a section that describes the research methodology, including the data sources, sample selection, and variable measurements. The subsequent section presents the empirical results and discusses the findings. Finally, the last section concludes the paper by summarizing the main results, discussing implications, and suggesting directions for future research.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Legitimacy Theory

According to legitimacy theory, firms strive to obtain and preserve social approval by ensuring that their operational practices and disclosures align with societal values, norms, and expectations (Almulhim et al., 2024; Noor et al., 2025). The adoption of environmental accounting by ESG-oriented firms serves as an important mechanism to signal sustainability and ecological accountability, thereby enhancing corporate reputation and investor trust (Ellili, 2022; Yilmaz et al., 2022). Strong legitimacy contributes to greater corporate stability and reinforces perceptions of sustainable performance, which increases both the capacity and willingness of firms to distribute dividends (Masno, 2024; Siddiqui et al., 2022). The presence of board independence further strengthens this legitimacy by enhancing the credibility of oversight over ESG practices and the integrity of accounting information, thereby reinforcing the relationships among environmental accounting, earnings quality, and dividend policy within a corporate sustainability framework (Noor et al., 2025; Yilmaz et al., 2022).

Agency Theory

From an agency theory perspective, dividend distributions function as a governance instrument that helps curb managerial–shareholder conflicts and alleviates information imbalances between corporate insiders and owners (Nam, 2019; Nguyen & Bui, 2019). The adoption of environmental accounting and the presence of high earnings quality reflect managerial transparency and accountability in managing corporate resources, thereby reducing the likelihood of opportunistic behavior (Pathak & Ranajee, 2020; Siddiqui et al., 2022). Reliable earnings, supported by strong operating cash flows, provide assurance to shareholders that dividends are distributed from sustainable financial performance rather than temporary accounting outcomes (Pathak & Ranajee, 2020; Ryu et al., 2025). In this context, good corporate governance, proxied by board independence, functions as an effective monitoring mechanism that ensures dividend decisions align with shareholders' interests and are not distorted by managerial incentives, thereby promoting optimal and consistent dividend policies (Kilincarslan, 2021; Tahir et al., 2020).

Dividend Policy

The firm's dividend payout policy represents a managerial choice concerning the proportion of earnings distributed to capital owners as dividends relative to earnings retained for internal financing (Kanojia & Bhatia, 2022; Ryu et al., 2025). This policy serves as a signal of managerial assurance regarding the stability of financial performance and future prospects, while also functioning as a tool to mitigate agency tensions between executives and shareholders (Erdogan et al., 2023; Pathak & Ranajee, 2020). The dividend payout ratio is commonly used as a proxy for dividend policy because it captures the consistency of firms in distributing earnings to shareholders (Ananzeh et al., 2024),

particularly among sustainability-oriented firms such as those included in the IDX ESG Leaders index, which are expected to balance investor returns with long-term investment objectives.

Board Independence

Board independence refers to the proportion of independent commissioners or directors relative to the total board size (Kilincarslan, 2021; Kumar et al., 2023). The presence of independent board members enhances the effectiveness of managerial oversight, reduces conflicts of interest, and ensures that strategic decisions, including dividend policy, are made objectively and aligned with shareholders' interests (Chintrakarn et al., 2022; Yakubu et al., 2022). In firms with high ESG profiles, board independence also serves an essential function in ensuring that commitments to sustainability and transparency are reflected in credible and consistent financial policies (Islam et al., 2022; Noor et al., 2025).

Environmental Accounting

Environmental accounting reflects a firm's commitment to identifying, measuring, and disclosing costs and activities related to environmental impacts in its financial reports (Almulhim et al., 2024; Yilmaz et al., 2022). The adoption of environmental accounting signals a higher level of corporate responsibility and transparency toward stakeholders and indicates more effective management of environmental risks (Ellili, 2022; Masno, 2024). Firms that consistently disclose environmental costs are perceived to have stronger governance and sustainability practices, which can enhance investor confidence and support more stable and improved dividend policies (Noor et al., 2025; Zahid et al., 2023).

Earnings Quality

In this research, earnings quality is defined as the degree to which disclosed profits accurately represent a firm's underlying economic condition and are supported by sustainable operating cash flows (Hung et al., 2020; Nam, 2019). Earnings quality is assessed using the accruals quality approach, which captures the reliability of accrual-based earnings by examining the relationship between total accruals and operating cash flows from prior, current, and subsequent periods, along with variations in revenue and investments in property, plant, and equipment (Islam et al., 2022). Higher earnings quality indicates lower discretionary accruals and a stronger alignment between accounting earnings and underlying cash flows, thereby reducing information asymmetry and enhancing the credibility of financial information for stakeholders (Nguyen & Bui, 2019; Pathak & Ranajee, 2020).

Hypothesis Development

Environmental Accounting and Dividend Policy

Based on legitimacy theory, firms aim to obtain and sustain social acceptance by ensuring their actions and disclosures conform to prevailing social values (Ellili, 2022; Zahid et al., 2023). The adoption of environmental accounting, as reflected in the recognition and disclosure of environmental costs in annual reports, represents a tangible commitment to sustainability and social responsibility (Almulhim et al., 2024; Matos et al., 2020). Such practices enhance corporate transparency and credibility in the eyes of investors, thereby reducing reputational risk and future cash flow uncertainty (Ananzeh et al., 2024; Ryu et al., 2025). Firms that implement environmental accounting tend to achieve greater financial stability and higher investor confidence, which in turn encourages the adoption of higher dividend policies as a positive signal of corporate performance and sustainability (Erdogan et al., 2023; Zahid et al., 2023).

Empirical evidence largely supports a favorable association between environmental accounting and corporate dividend policy (Almulhim et al., 2024; Ananzeh et al., 2024; Ellili, 2022; Erdogan et al., 2023; Matos et al., 2020; Ryu et al., 2025; Zahid et al., 2023). Almulhim et al. (2024), Erdogan et al. (2023), and Matos et al. (2020) find that companies with stronger environmental performance generally exhibit higher and more consistent dividend distributions. Similar findings are presented by Ananzeh et al. (2024) and Ryu et al. (2025), showing that ESG activities and environmental accounting enhance market confidence and firms' capacity to distribute earnings to shareholders. The hypothesis is formulated:

H1: Environmental accounting has a positive effect on dividend policy.

Earnings Quality and Dividend Policy

Based on agency theory, earnings quality plays a critical role in reducing conflicts of interest and information asymmetry between management and shareholders (Hung et al., 2020). High earnings quality, reflected in stronger operating cash flows relative to net income, indicates that reported earnings are persistent and supported by actual cash realization rather than accounting manipulation

(Nam, 2019; Pathak & Ranajee, 2020). This condition enhances the reliability of earnings as a basis for dividend decisions, as firms with high-quality earnings possess greater financial flexibility and face lower risk when distributing dividends (Hung et al., 2020; Nguyen & Bui, 2019). Consequently, higher earnings quality increases the likelihood that firms adopt higher and more sustainable dividend policies (Nguyen & Bui, 2019; Pathak & Ranajee, 2020).

Empirical evidence consistently supports a favorable association between earnings quality and corporate dividend policy (Hung et al., 2020; Nam, 2019; Nguyen & Bui, 2019; Pathak & Ranajee, 2020). Hung et al. (2020) and Nguyen & Bui (2019) find that firms with superior earnings quality tend to distribute higher dividends because reported profits are supported by actual cash flows. Similar results are reported by Nam (2019) and Pathak & Ranajee (2020), who show that earnings quality strengthens the reliability of financial information and mitigates uncertainty in dividend policy decisions. The hypothesis is formulated:

H2: Earnings quality has a positive effect on dividend policy.

Good Corporate Governance (Board Independence) and Dividend Policy

Drawing on agency theory, potential conflicts between management and shareholders can be reduced through effective corporate governance structures, particularly the presence of independent boards (Chintrakarn et al., 2022; Kilincarslan, 2021). Board independence serves as a monitoring mechanism that ensures strategic corporate decisions, including dividend policy, are made to protect shareholders' interests rather than managerial opportunism (Kanojia & Bhatia, 2022; Kumar et al., 2023). A more independent board tends to encourage higher dividend distributions as a means of reducing the potential expropriation of free cash flow and enhancing managerial accountability (Tahir et al., 2020; Yakubu et al., 2022). Accordingly, a higher proportion of independent board members increases managerial pressure to adopt dividend policies that favor shareholders (Chintrakarn et al., 2022; Kumar et al., 2023).

Empirical evidence consistently reports a favorable association between board independence and corporate dividend policy (Chintrakarn et al., 2022; Kanojia & Bhatia, 2022; Kilincarslan, 2021; Kumar et al., 2023; Tahir et al., 2020; Yakubu et al., 2022). Chintrakarn et al. (2022) find that greater board independence significantly increases dividend payout as a result of stronger monitoring. Kilincarslan (2021), Tahir et al. (2020), and Kanojia & Bhatia (2022) emphasize the role of independent boards in controlling agency conflicts and promoting higher and more transparent dividend policies. Evidence from emerging markets also shows similar results (Kumar et al., 2023; Yakubu et al., 2022), suggesting that the effectiveness of board independence is robust across institutional contexts. The hypothesis is formulated:

H3: Good corporate governance (board independence) has a positive effect on dividend policy.

Environmental Accounting, Good Corporate Governance (Board Independence), and Dividend Policy

Based on legitimacy theory and agency theory, the effectiveness of environmental accounting in influencing dividend policy depends strongly on the quality of corporate governance (Masno, 2024; Noor et al., 2025). The adoption of environmental accounting enhances corporate legitimacy and reputation through greater transparency regarding environmental costs and impacts (Noor et al., 2025; Yilmaz et al., 2022). However, in the absence of strong monitoring mechanisms, such practices may remain symbolic and may not be fully reflected in strategic financial decisions, including dividend policy (Ellili, 2022; Masno, 2024). Board independence serves as a key governance mechanism that ensures environmental commitments are genuinely internalized in managerial decision making (Masno, 2024; Yilmaz et al., 2022). More independent boards are likely to encourage management to leverage the improved reputation and stability generated by environmental accounting practices as a credible basis for setting higher dividend payouts (Masno, 2024; Noor et al., 2025; Yilmaz et al., 2022).

Empirical evidence supports that corporate governance, particularly board independence, moderates the relationship between environmental accounting and corporate dividend policy (Ellili, 2022; Masno, 2024; Noor et al., 2025; Yilmaz et al., 2022). Ellili (2022) finds that corporate governance significantly strengthens the impact of environmental accounting on dividend payouts in emerging markets. Similar results are reported by Yilmaz et al. (2022) and Masno (2024), who show that strong governance mechanisms enhance the effectiveness of sustainability performance in shaping corporate financial decisions. In addition, Noor et al. (2025) demonstrate that board independence improves the credibility of sustainability reporting and its influence on corporate policies. Based on these theoretical arguments and empirical findings, the fourth hypothesis is formulated as follows:

H4: Good corporate governance (board independence) moderates the effect of environmental accounting on dividend policy.

Earnings Quality, Good Corporate Governance (Board Independence), and Dividend Policy

Based on agency theory, high earnings quality contributes to dividend policy only when it is supported by effective corporate governance mechanisms (Islam et al., 2022). Earnings quality reflects the reliability of reported profits as a basis for dividend distribution. However, in the absence of adequate monitoring, managers may exploit accounting discretion to retain earnings or allocate resources opportunistically (Islam et al., 2022; Siddiqui et al., 2022). Board independence functions as a key control mechanism that ensures high quality earnings information is used in the interests of shareholders (Siddiqui et al., 2022). A strong independent board constrains managerial opportunism and encourages the use of cash based earnings as a foundation for higher and more sustainable dividend policies (Islam et al., 2022).

Prior empirical research demonstrates that corporate governance, particularly board independence, moderates the association between earnings quality and corporate dividend policy (Islam et al., 2022; Siddiqui et al., 2022). Islam et al. (2022) show that strong governance enhances financial flexibility and strengthens the role of earnings quality in supporting dividend distribution decisions. These results are reinforced by Siddiqui et al. (2022), who show that corporate governance mechanisms significantly moderate the association between earnings quality and dividend policy. The hypothesis is formulated:

H5: Good corporate governance (board independence) moderates the effect of earnings quality on dividend policy.

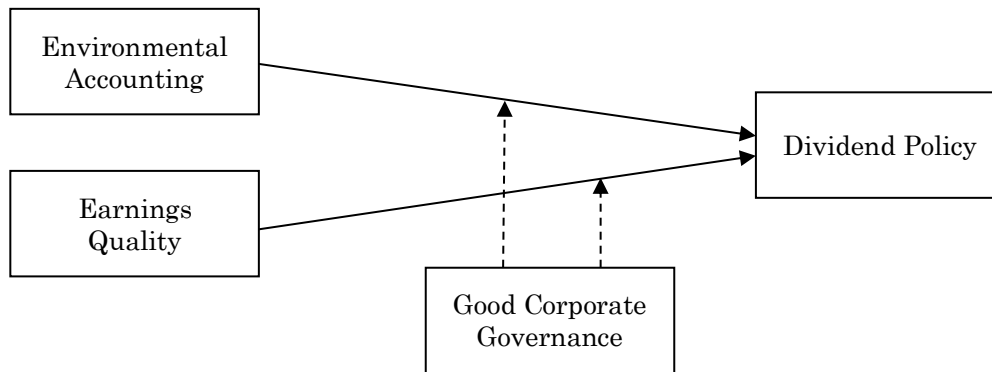


Figure 1. Research Framework

RESEARCH METHOD

This study applied a quantitative analytical design to empirically investigate the effects of environmental accounting and earnings quality on dividend policy, while also assessing the moderating role of good corporate governance. The population comprised all firms belonging to the IDX ESG Leaders index on the Indonesia Stock Exchange. The study sample was obtained through purposive sampling using the criteria outlined below.

Table 1. Criteria for Sample Selection

Criteria	Number of Firms
Firms listed in the IDX ESG Leaders index throughout 2020–2024	30
Firms not consistently listed in the IDX ESG Leaders index during 2020–2024	(10)
Firms with unavailable or incomplete financial data for 2020–2024	(0)
Final sample	20
Observation period (2020–2024)	5
Total firm-year observations (20 firms over five years)	100

Source: Data processed, 2025

The study relied on secondary data obtained from annual reports, sustainability reports, and financial statements officially published by the Indonesia Stock Exchange and corporate websites. The ESG-based index was selected because it represented firms with superior environmental, social, and governance performance, providing an appropriate context to examine how environmental accounting practices, earnings quality, and governance mechanisms influenced dividend policy. The 2020–2024

period reflected heightened regulatory attention and growing investor focus on sustainability, allowing a timely and comprehensive analysis. The use of firms included in the IDX ESG Leaders index during the 2020–2024 period was justified by their representation of companies with relatively superior environmental, social, and governance performance in Indonesia, thereby providing a relevant context to examine how ESG-related practices and corporate governance mechanisms influenced dividend policy. This period was selected as it captured heightened regulatory developments and increasing investor awareness regarding sustainability issues in the Indonesian capital market. Although the focus on ESG Leaders firms might have introduced potential sample selection bias due to their inherently stronger governance structures and disclosure practices, this approach was intended to ensure data consistency, comparability, and relevance to the study objectives. Furthermore, the sample allowed for a more focused analysis of how high-ESG firms behaved in terms of dividend distribution, thereby providing meaningful insights into the role of corporate governance in strengthening ESG–dividend policy relationships.

Dividend policy (DVP) served as the dependent variable and was operationalized through the dividend payout ratio, which was computed by dividing total dividends by net income (Ananzeh et al., 2024). The independent variables included environmental accounting and earnings quality. Environmental accounting (EAC) was measured using a dummy variable, coded as one when a firm disclosed environmental cost components in its annual report and as zero when such disclosures were absent (Dhar et al., 2022). Earnings quality (EQR) was proxied by accrual quality, estimated using a model that regressed total accruals against prior, contemporaneous, and subsequent operating cash flows, along with changes in revenue and property, plant, and equipment (Islam et al., 2022). Lower residual values indicated higher earnings quality, reflecting more reliable and sustainable earnings. Board independence (IDC), calculated as the proportion of independent directors to the total number of board members, was treated as a proxy for good corporate governance, which functioned as a moderating variable in this study (Noor et al., 2025).

Table 2. Description of Research Variables

Variables	Variables Name	Code	Operational Definition
Dependent	Dividend Policy (Ananzeh et al., 2024)	DVP	Measured using the dividend payout ratio, calculated as total cash dividends divided by net profit.
Moderating	Board Independence (Noor et al., 2025)	IDC	Calculated as the ratio of independent directors to the total board composition.
Independent	Environmental Accounting (Dhar et al., 2022)	EAC	Dummy indicator was coded as 1 if the firm reported environmental expenditure in its annual report, and 0 if otherwise.
	Earnings Quality (Islam et al., 2022)	EQR	Total accruals (ACC _{it}) were estimated as: $ACC_{it} = CFLOW_{it-1} + CFLOW_{it} + CLFOW_{t+1} + \Delta REV_{it} + PPE_{it}$ where ACC _{it} denoted the total accruals of firm <i>i</i> in year <i>t</i> ; CFLOW represented operating cash flows, measured as net operating income before extraordinary items adjusted for total accruals; ΔREV indicated changes in firm revenue; and PPE referred to property, plant, and equipment of firm <i>i</i> in year <i>t</i> .

Data analysis employed panel data regression with moderated regression analysis to test both direct and moderating effects. The baseline model examined the direct effects of environmental accounting, earnings quality, and board independence on dividend policy, while the moderated model incorporated interaction terms between environmental accounting and board independence, as well as between earnings quality and board independence.

$$DVP = \alpha + \beta_1 EAC + \beta_2 EQR + \beta_3 IDC + \varepsilon$$

$$DVP = \alpha + \beta_1 EAC + \beta_2 EQR + \beta_3 IDC + \beta_4 (EAC * IDC) + \beta_5 (EQR * IDC) + \varepsilon$$

Model estimation was conducted using EViews. The choice of the most suitable panel data model was based on the Chow, Hausman, and Lagrange Multiplier statistical tests. Classical assumption checks, including multicollinearity, heteroskedasticity, and autocorrelation tests, were performed to ensure the robustness of the estimates. Hypotheses were evaluated using coefficient estimates and *p*-

values at a 5 percent significance level. A significant interaction term indicated the presence of a moderating effect, while a significant F statistic confirmed overall model validity. The coefficient of determination reflected the explanatory power of the model in explaining variations in dividend policy.

RESULTS AND DISCUSSION

Based on Table 3, all variables had 100 observations. Environmental accounting ranged from a minimum of 0.000 to a maximum of 1.000, with an average of 0.693 and a standard deviation of 0.463, indicating a fairly high but heterogeneous level of environmental accounting adoption across the sampled firms. Earnings quality ranged from 0.550 to 1.460, with a mean of 0.772 and a standard deviation of 0.401, indicating generally sound earnings quality with moderate variation. Dividend policy recorded a minimum value of 0.064 and a maximum of 0.890, with an average value of 0.341 and a standard deviation of 0.219, reflecting a fairly low dividend payout tendency. Board independence ranged from 0.330 to 0.830, with an average value of 0.487 and a standard deviation of 0.118, indicating a moderate and fairly homogeneous proportion of independent board members across the sample firms.

Table 3. Descriptive Statistics

	N	Min	Max	Mean	Standard Deviation
Environmental accounting	100	0.000	1.000	0.693	0.463
Earnings quality	100	0.550	1.460	0.772	0.401
Dividend policy	100	0.064	0.890	0.341	0.219
Board independence	100	0.330	0.830	0.487	0.118

Source: Data processed, 2025

On the basis of the panel data regression results in Table 4, the Fixed Effect Model (FEM) was selected as the most suitable specification according to the model selection tests. The results showed that all main variables significantly affected dividend policy (DVP) at the 5 percent significance level. Environmental accounting (EAC), earnings quality (EQR), and board independence (IDC) exhibited positive and significant coefficients, indicating that higher levels of environmental accounting implementation, earnings quality, and board independence were linked to increased dividend distributions. In addition, the interaction terms $EAC \times IDC$ and $EQR \times IDC$ were positive and statistically significant, confirming that board independence strengthened the effects of environmental accounting and earnings quality on dividend policy. The R-square value of 0.641 and the adjusted R-square of 0.611 indicated that the FEM explained a substantial proportion of the variation in dividend policy, while the Prob(F-statistic) of 0.000 demonstrated the overall statistical significance of the model.

Table 4. Panel Regression Results

Dependent Variable: DVP	CEM (Coef / SE)	FEM (Coef / SE)	REM (Coef / SE)
EAC	0.087* (0.027)	0.071* (0.029)	0.078* (0.028)
EQR	0.131* (0.039)	0.108* (0.042)	0.115* (0.040)
IDC	0.156* (0.050)	0.138* (0.035)	0.145* (0.050)
EAC x IDC	0.068* (0.025)	0.062* (0.026)	0.065* (0.025)
EQR x IDC	0.076* (0.031)	0.069* (0.032)	0.072* (0.031)
R-Square	0.503	0.641	0.559
Adjusted R ²	0.475	0.611	0.529
F-Statistic	6.72	12.34	8.29
Prob(F-statistic)	0.000	0.000	0.000

Note: Based on the model selection tests, the Fixed Effect Model (FEM) was identified as the most appropriate specification, and all main coefficients in the model were statistically significant at the 5 percent significance level ($p < 0.05$).

Source: Data processed, 2025

On the basis of the panel data model selection results in Table 5, the Chow test reported an F-statistic of 4.580, suggesting that FEM (Fixed Effect Model) was more appropriate than CEM (Common Effect Model). The Hausman test yielded a Chi-square value of 9.210, confirming that FEM was preferred over the Random Effect Model (REM). Meanwhile, the Lagrange Multiplier test produced a Chi-square value of 5.230, suggesting that REM was superior to CEM. Overall, the significant results of the Chow and Hausman tests at the 5 percent level indicated that the Fixed Effect Model (FEM) was the most suitable model for this study.

Table 5. Panel Data Model Selection Results

Model Test	Test Statistic	p-value	Decision
Chow Test	F = 4.58	0.000	FEM was preferred over CEM
Hausman Test	Chi-Square = 9.21	0.000	FEM was preferred over REM
Lagrange Multiplier (LM) Test	Chi-Square = 5.23	0.022	REM

Source: Data processed, 2025

Based on the classical assumption tests reported in Table 6, the multicollinearity test indicated that all variables, including environmental accounting, earnings quality, board independence, and the interaction terms environmental accounting × board independence and earnings quality × board independence, had Variance Inflation Factor values below 10. This result confirmed that the model did not suffer from multicollinearity. The heteroskedasticity test using the Glejser method showed p-values exceeding 0.05, suggesting no heteroskedasticity. The Durbin–Watson test statistic of 2.031 indicated that the regression model was free from autocorrelation. Overall, all classical assumptions were satisfied, and the moderated regression model was appropriate for hypothesis testing in this study.

Table 6. Classical Assumption Test Results

Test	Variable	Result	Interpretation	Conclusion
Multicollinearity (VIF)	Environmental accounting	1.428	VIF < 10	No multicollinearity
	Earnings quality	1.672	VIF < 10	No multicollinearity
	Board independence	1.514	VIF < 10	No multicollinearity
	EAC x IDC	1.889	VIF < 10	No multicollinearity
	EQR x IDC	1.934	VIF < 10	No multicollinearity
Heteroscedasticity (Glejser Test)	All Variables	p > 0.05	p-value > 0.05	No heteroscedasticity
Autocorrelation (Durbin-Watson)	All Variables	2.031	DW ≈ 2	No autocorrelation

Source: Data processed, 2025

On the basis of the regression results in Table 7 using the Fixed Effect Model approach, environmental accounting (EAC) and earnings quality (EQR) had positive and statistically significant effects on dividend policy (DVP), with coefficients of 0.071 and 0.108, respectively, at the 5 percent significance level. The proportion of board independence (IDC) also showed a positive and statistically significant effect on dividend policy, as reflected by a coefficient of 0.138. The moderation analysis indicated that the interaction terms between environmental accounting and board independence (EAC × IDC) and between earnings quality and board independence (EQR × IDC) were positive and significant. This finding suggested that good corporate governance, proxied by board independence, strengthened the effects of environmental accounting and earnings quality on dividend policy. The R-square of 0.641 and the adjusted R-square of 0.611 indicated that 61.1 percent of the variation in dividend policy was captured, while the F-statistic of 12.34 with a probability value of 0.000 confirmed that the regression results indicated joint statistical significance and were appropriate for hypothesis testing.

Table 7. Regression Results

Dependent Variable: DVP	FEM (Robust Standard Errors)
EAC	0.071* (0.029)
EQR	0.108* (0.042)
IDC	0.138* (0.035)
EAC x IDC	0.062* (0.026)
EQR x IDC	0.069* (0.032)
R-Square	0.641
Adjusted R ²	0.611
F-Statistic	12.34
Prob(F-statistic)	0.000

*p < 0.05

Source: Data processed, 2025

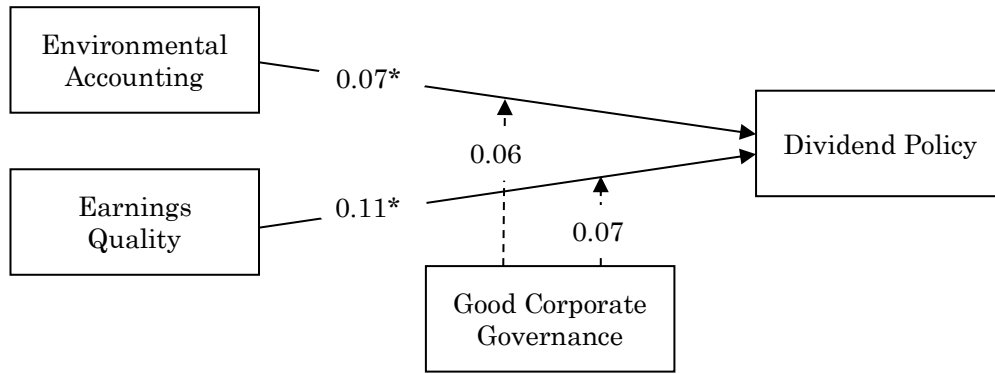


Figure 2. Research Model

Table 7 showed that environmental accounting was positively and significantly associated with dividend policy. Firms that disclosed environmental costs tended to have stronger legitimacy and reputation, which supported cash flow stability and enabled higher dividend distributions. This result aligned with earlier research reporting a positive relationship between environmental accounting and dividend policy (Almulhim et al., 2024; Ananzeh et al., 2024; Ellili, 2022; Erdogan et al., 2023; Matos et al., 2020; Ryu et al., 2025; Zahid et al., 2023). The result aligned with legitimacy theory, which suggested that environmental cost disclosure reflected firms’ efforts to meet stakeholders’ social and environmental expectations. Such practices enhanced corporate legitimacy and reputation, strengthened investor confidence, supported sustainable financial performance, and created stable cash flows that allowed firms to distribute higher dividends.

Table 7 indicated that earnings quality was positively and significantly associated with dividend policy. This finding accorded with prior studies by Hung et al. (2020), Nam (2019), Nguyen & Bui (2019), and Pathak & Ranajee (2020). From an agency theory standpoint, earnings supported by operating cash flows reflected higher quality and more sustainable financial performance and reduced information asymmetry between management and shareholders. This condition strengthened shareholder confidence in the firm’s cash-generating ability, thereby motivating management to implement more stable and optimal dividend policies to alleviate agency problems.

Based on the results reported in Table 7, good corporate governance (board independence) was positively and significantly associated with dividend policy. This finding accorded with prior studies by Chintrakarn et al. (2022), Kanojia & Bhatia (2022), Kilincarslan (2021), Kumar et al. (2023), Tahir et al. (2020), and Yakubu et al. (2022). The outcome supported agency theory, which highlighted independent directors as an effective monitoring mechanism to reduce agency conflicts between management and shareholders. An increased presence of independent board members strengthened oversight of managerial decisions, constrained opportunistic behavior, and encouraged dividend policies that better protected shareholder interests by facilitating profit distribution and controlling free cash flow.

Based on the results in Table 7, good corporate governance, proxied by board independence, significantly moderated and strengthened the relationship between environmental accounting and dividend policy. This finding was consistent with Ellili (2022), Masno (2024), Noor et al. (2025), and Yilmaz et al. (2022). From a legitimacy theory standpoint, independent boards ensured that environmental accounting practices and disclosures went beyond symbolic compliance and effectively enhanced corporate legitimacy and reputation among stakeholders. In line with agency theory, independent directors also served as an effective monitoring mechanism that guided management to translate environmental commitments into shareholder-oriented financial decisions, including more optimal dividend policies.

Based on the results in Table 7, good corporate governance, proxied by board independence, significantly moderated and strengthened the relationship between earnings quality and dividend policy. This finding was consistent with Islam et al. (2022) and Siddiqui et al. (2022). From the perspective of agency theory, the presence of independent directors enhanced the effectiveness of managerial oversight, leading to more credible and reliable earnings reporting while reducing information asymmetry and managerial opportunism. As a result, management was encouraged to adopt more consistent dividend policies that were better aligned with shareholder interests as a mechanism to mitigate agency conflicts.

CONCLUSION

This research investigates the effects of environmental accounting and earnings quality on dividend policy, with good corporate governance (proxied by board independence) as a moderating variable, using IDX ESG Leaders firms. The findings of the moderated regression analysis show that environmental accounting and earnings quality positively influence dividend policy, indicating that firms that internalize environmental costs and generate earnings supported by operating cash flows are more likely to implement stable and credible dividend policies. In addition, board independence is positively associated with dividend policy, supporting agency theory by demonstrating that effective governance mechanisms reduce agency conflicts. The moderation results further reveal that board independence strengthens the relationships between environmental accounting and dividend policy, and between earnings quality and dividend policy, highlighting the strategic role of board independence in aligning sustainability practices and financial reporting quality with shareholder-oriented financial decisions.

The findings of this study suggest several important policy implications within the Indonesian context. Regulators such as the Financial Services Authority (OJK) need to strengthen ESG disclosure requirements by standardizing environmental accounting practices, particularly the reporting of environmental costs, in line with existing sustainability reporting regulations (POJK No. 51/POJK.03/2017). The Indonesia Stock Exchange (IDX) also plays a critical role in enhancing the credibility of ESG-based indices, including the IDX ESG Leaders, by incorporating stricter governance and transparency criteria. Furthermore, policies that promote a higher proportion of independent directors are essential, as board independence improves the effectiveness of ESG implementation and its translation into shareholder-oriented outcomes such as dividend policy. These policy directions enhance market discipline, reduce information asymmetry, and support the development of sustainable investment practices in Indonesia's capital market.

The findings provide evidence that corporate governance not only functions as a monitoring mechanism but also enhances the transmission of nonfinancial performance into corporate financial decisions. The study also offers practical implications for managers by emphasizing the importance of environmental accounting disclosure and improved earnings quality as credible signals to investors, and for regulators and capital market stakeholders by supporting stronger policies on board independence and the incorporation of ESG factors in corporate performance evaluation. Despite these contributions, this study has several limitations. The sample comprises firms included in the IDX ESG Leaders index, and environmental accounting is measured using a dummy proxy, which may not fully capture the depth of environmental disclosure. Future research is encouraged to employ more comprehensive environmental disclosure indices, extend the analysis to broader sectors and longer observation periods, and examine additional corporate governance mechanisms such as audit committees or institutional ownership to further explain variations in dividend policy.

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