Environmental, Social, and Governance Performance and Dividend Payout: Evidence from Thai Listed Firms

Pavinee Manowan, DBA
Assistant Professor, Department of Accountancy,
Chulalongkorn Business School, Chulalongkorn University
Email: pavinee@cbs.chula.ac.th

Environmental, Social, and Governance Performance and Dividend Payout: Evidence from Thai Listed Firms

Pavinee Manowan, DBA
Assistant Professor, Department of Accountancy,
Chulalongkorn Business School, Chulalongkorn University
Email: pavinee@cbs.chula.ac.th

Received: November 21, 2025
Revised: December 4, 2025
Accepted: December 8, 2025

ABSTRACT

This study investigates the impact of environmental, social, and governance (ESG) performance on dividend payout among Thai listed companies during 2014–2024. Using a sample of 1,573 firm-year observations across three industry groups, including Agro, Industrial and Resources (Industry 1), Consumer, Service and Technology (Industry 2), and Financial, Property and Construction (Industry 3), the study applies a fixed-effects panel regression corrected for heteroskedasticity and autocorrelation through Weighted Least Squares (WLS) and AR(2) specifications. Consistent with international evidence, ESG performance is positively associated with dividend payouts across all industries, with the strongest effect observed in financial and property firms. When ESG is decomposed, environmental performance significantly increases dividends in Industry 2 and 3, while the social pillar shows no significant influence. Governance scores reduce dividend payouts only in Industry 1. Additional findings reveal that profitability and leverage reduce dividends, firm age negatively affects payouts in Industry 2, and Thai firms exhibit strong dividend smoothing behavior. These results highlight the growing importance of sustainability signals in shaping financial policy in an emerging-market context where ESG practices and investor expectations are still evolving.

Keywords: Environmental, Social, and Governance (ESG), Dividend Policy, Sustainability Performance, Emerging Markets, Panel Data Analysis, Corporate Financial Decisions

Introduction

Dividend policy remains a central topic in corporate finance, yet the factors shaping firms' payout decisions continue to evolve as markets incorporate broader measures of firm responsibility and sustainability. While traditional determinants, such as profitability, leverage, cash flow stability, and agency conflicts, remain important, the rapid global adoption of environmental, social, and governance (ESG) standards has added a new dimension to the longstanding dividend puzzle. Investors, regulators, and scholars increasingly recognize that ESG performance may alter managerial incentives, financial flexibility, perceived risk, and stakeholder expectations, all of which can influence dividend policy.

A growing body of empirical research shows that ESG performance is frequently associated with higher dividend payouts. For example, Bilyay-Erdogan et al., (2023) find that ESG performance increases dividends among European firms through enhanced profitability and reduced risk. Verga Matos et al. (2020) show that stronger ESG scores contribute to greater dividend stability among major European corporations. Similarly, Salvi et al. (2024) report a positive and significant ESG–payout association in European listed firms, suggesting that sustainability considerations have become embedded in financial decision-making. Evidence from emerging markets also shows a positive relationship: Ellili (2022) finds that ESG disclosure increases dividend payout in UAE firms, while Almulhim et al. (2024) demonstrate that Saudi firms with strong ESG performance distribute higher dividends, particularly when financially sustainable.

Beyond these broad patterns, several contextual factors moderate the ESG–dividend relationship. Zahid et al. (2023) show that audit quality affects the strength of the ESG–dividend link in Western Europe. Kumar and Ghalke (2025) document that legal systems influence the ESG effect across G20 countries, with stronger investor protection amplifying dividend responses. Other studies highlight the roles of financial constraints, corporate life cycle, and ownership structure, noting that ESG does not influence dividends uniformly across firms or regions (Maquieira et al., 2024; Ananzeh et al., 2025). Meta-analytic evidence by Jain and Malhotra (2025), summarizing 35 studies, confirms that ESG performance generally increases dividend payout, but the magnitude of the effect varies systematically with firm characteristics and national governance environments.

Despite the rapidly expanding international evidence, research on the ESG–dividend nexus in Thailand remains scarce. Thailand is an ideal empirical setting because the Stock Exchange of Thailand (SET) was one of the earliest adopters of ESG disclosure guidelines in Asia, and many Thai firms have high ESG reporting standards. However, it remains unclear whether Thai firms with stronger ESG performance reward shareholders through higher or more stable dividends, or whether ESG investments function as a cost that reduces distributable resources. This is an important question in an emerging-market context where capital constraints, governance quality, and investor expectations differ significantly from Western markets.

Although international evidence generally shows a positive relationship between ESG performance and dividend policy (Bilyay-Erdogan et al., 2023; Verga Matos et al., 2020; Salvi et al., 2024), several gaps remain, particularly in emerging markets. First, there is limited empirical research on ESG and dividend policy in Thailand, despite the country's early adoption of sustainability disclosure and the increasing relevance of ESG scores among investors. Existing studies predominantly examine Europe, the US, or China, leaving uncertainty about whether ESG influences payout decisions in a Southeast Asian institutional environment with different governance structures and investor expectations.

Second, industry differences remain underexplored. Prior research commonly relies on pooled samples, overlooking the fact that ESG pressures, regulatory environments, and dividend norms differ substantially across sectors. Capital-intensive industries, technology-driven firms, and highly regulated financial institutions may respond differently to ESG performance. No prior Thai study has systematically examined ESG–dividend relationships across industry groups.

Third, few studies investigate the distinct effects of environmental, social, and governance pillars separately. Although international evidence suggests heterogeneous effects, such as stronger environmental influence (Liu & Lee, 2025) or governance-dependent payout changes (Ellili, 2022), most empirical work uses composite ESG scores that mask these differences. Thailand lacks evidence on how each ESG component shapes dividend policy.

Finally, methodological limitations remain. Most existing ASEAN or emerging-market studies use basic panel models that do not correct for issues such as heteroskedasticity, autocorrelation, or dynamic dividend smoothing. As shown in our diagnostic tests, Thai data exhibit strong heteroskedasticity and autocorrelation, indicating the need for more robust approaches such as Weighted Least Squares and AR(2) specifications (Gill & Leemann, 2001)

Collectively, these gaps highlight the need for a comprehensive, industry-sensitive, component-level, and methodologically rigorous analysis of ESG and dividend payout in Thailand, an area this study directly advances.

Literature Review

Theoretical Foundations

Understanding the relationship between environmental, social, and governance (ESG) performance and dividend policy requires grounding in three major theories: agency theory, signaling theory, and stakeholder theory.

Agency theory argues that dividend payments help reduce agency costs by limiting managerial discretion over excess cash (Jensen & Meckling, 1976). Firms with strong ESG performance typically exhibit better governance quality, greater transparency, and stronger accountability structures. These factors reduce managerial opportunism and lower agency costs, thereby enabling or encouraging higher dividend payouts.

Signaling theory suggests that dividends communicate private information about a firm's financial health and future prospects (Spence, 1973). ESG performance also serves as a long-term signal of responsible management, reduced risk, and sustainable operations. When firms combine strong ESG engagement with dividend distributions, they reinforce investor confidence by signaling stable earnings and reduced uncertainty.

Stakeholder theory posits that firms with strong ESG practices manage relationships with stakeholders more effectively, thereby reducing reputational, regulatory, environmental, and operational risks. Lower risk may stabilize cash flows and enhance a firm's ability to maintain or increase dividends (Mahajan et al., 2023). At the same time, ESG initiatives may require significant financial resources, creating potential trade-offs between sustainability investment and dividend distribution, particularly in financially constrained or developing-market firms.

Together, these theories provide a conceptual basis for understanding why ESG performance may influence dividend policy through improvements in governance quality, reduction of risk, and strengthened investor trust.

Empirical Studies on ESG and Dividend Policy

A growing body of empirical research examines how ESG performance shapes firms' dividend decisions. Much of the evidence suggests a positive association, though the magnitude and mechanisms vary across countries, industries, and governance environments.

Bilyay-Erdogan et al. (2023) show that higher ESG performance significantly increases dividend payouts among European non-financial firms, operating mainly through enhanced earnings and reduced firm risk. Verga Matos et al. (2020) find that stronger ESG performance contributes to greater dividend stability, particularly through the environmental and governance dimensions. Salvi et al. (2024) further confirm that ESG positively influences payout policy among European firms, suggesting that sustainability practices have become increasingly embedded in financial decision-making.

In emerging markets, ESG performance similarly appears to influence dividend outcomes. Ellili (2022) reports that ESG disclosure increases dividend payouts among UAE-listed firms, with the relationship moderated by governance factors such as board independence, institutional ownership, and foreign ownership levels. Likewise, Almulhim et al. (2024) find that ESG scores strongly predict dividend payments among Saudi firms, with financial sustainability enhancing the effect.

Several studies highlight moderating and mediating mechanisms. Zahid et al. (2023) reveal that while ESG positively affects dividends in Western Europe, audit quality negatively moderates this relationship, particularly for firms audited by Big Four auditors. Kumar and Ghalke (2025) find that strong ESG performance predicts higher dividends across G20 firms, especially in common-law countries with stronger investor protection. Maquieira et al. (2024) show that financial constraints weaken the positive ESG–dividend link in family firms, and Ananzeh et al. (2025) document that the ESG–dividend relationship varies across firm life-cycle stages, with younger firms displaying stronger effects.

Recent methodological advances have also deepened the understanding of ESG's financial consequences. Liu and Lee (2025) use survival analysis to assess dividend sustainability and find that environmental performance significantly prolongs the duration of stable dividends. Complementing individual studies, Jain and Malhotra (2025) synthesize results from 35 prior studies and conclude that ESG disclosure has a consistent, positive impact on dividend payout, although the effect varies depending on firm characteristics, governance quality, and national economic conditions.

Overall, the literature demonstrates that ESG performance tends to exert a positive and economically meaningful influence on dividend payout and stability across various markets. Firms with stronger ESG profiles are generally more likely to distribute higher dividends and maintain more stable payout patterns, owing to reduced risk, stronger governance structures, and greater investor trust. However, the ESG–dividend relationship is far from uniform. Financial sustainability, audit oversight, ownership structure, governance quality, and firm maturity all interact with ESG to shape dividend policy. Emerging-market evidence also reveals that financial constraints and institutional environments can weaken or reshape this relationship. The reviewed studies collectively underscore the need for further empirical investigation in emerging contexts, particularly in Thailand, where ESG adoption is evolving rapidly and may influence financial decisions in ways distinct from Western markets.

Methodology

Data and Sample Selection

This study uses panel data from companies listed on the Stock Exchange of Thailand (SET) over the period 2014–2024, resulting in 1,573 firm-year observations across three industry groups. The dataset includes firms for which complete financial data, ESG scores, and dividend payout information are available. Based on the fundamental environmental and social impacts, industries that share similar exposure to specific sustainability risks and face similar stakeholders expectations regarding their environmental and social performance are grouped together.

- Industry 1: Agro, Industry, Resources (Delmas & Blass, 2010: Clarkson et al., 2008) These industries often investigate environmental performance, pollution control, supply chain management of raw materials, and climate change mitigation efforts, as these are the primary areas where their activities create material risks and attract public scrutiny.
- Industry 2: Consumption, Services, Technology (Govindan et al. 2013; Acquier et al., 2017; Lee et al., 2009) This cluster often examines labor standards, consumer health and safety, data ethics, e-waste management, and the social implications of their offerings.
- Industry 3: Financial, Property & Construction (Cheng et al., 2014: Krüger, 2015; Strange et al., 2009) This group often concentrate on sustainable finance, green building certification, corporate governance, and risk management related to climate change.

Dividend payout (DP) serves as the dependent variable. Independent variables include the firm's liquidity ratio (LID), leverage (debt-to-equity: DE), profitability (ROA), ESG total score (ESG), environmental (Env), social (Soc), and governance (Gov) subcomponents, and firm age (Firmage). All variables are stationary based on ADF tests.

Variable Measurement

Dependent Variable

- Dividend Payout (DP): Measured as dividend per share relative to price or earnings

Independent Variables

- LID: Liquidity ratio measured as current assets divided by current liabilities.
- DE: Leverage measured as total liabilities to total equity.
- ROA: Profitability measured as net income to total assets.
- ESG: Total ESG score for the firm.
- Env, Soc, Gov: Environmental, social, and governance dimension scores.
- Firmage: Age since company inception.
- DPt–1, DPt–2: Lagged dividend payout terms included to capture dynamic adjustments.

Model Specification

The final model incorporates fixed effects, AR(2) dynamic structure, and WLS estimation to obtain robust coefficients. The general form is:

$$\begin{aligned}\mathrm{DP}_{it} = {} & \beta_0 + \beta_1 \mathrm{LID}_{it} + \beta_2 \mathrm{DE}_{it} + \beta_3 \mathrm{ROA}_{it} + \beta_4 \mathrm{ESG}_{it} + \beta_5 \mathrm{Env}_{it} + \beta_6 \mathrm{Soc}_{it} \\ & + \beta_7 \mathrm{Gov}_{it} + \beta_8 \mathrm{Firmage}_{it} + \beta_9 \mathrm{DP}_{i,t-1} + \beta_{10} \mathrm{DP}_{i,t-2} + \mu_i + \varepsilon_{it}\end{aligned}$$

Where:

- μ_i captures unobserved firm-specific fixed effects
- ε_{it} follows an AR(2) structure to correct serial correlation

Separate models were estimated for Industry 1, Industry 2, and Industry 3 to capture structural and economic differences among sectors.

Estimation Procedures

Model estimation followed these steps.

1. Panel diagnostics identified heteroskedasticity and autocorrelation.
2. Fixed effects selected via significant Hausman tests.
3. AR(2) structure applied to correct autocorrelation.
4. Weighted Least Squares (WLS) applied to correct heteroskedasticity.
5. Final results produced using FE + AR(2) + WLS.

This combined specification ensures efficient, unbiased, and consistent estimates of the determinants of dividend payout across three industry groups.

Results

Descriptive Statistics

The descriptive statistics, as presented in Table 1, provide a clear picture of how Thai listed companies differ across industries in terms of dividend behavior, financial conditions, and ESG performance during 2014–2024. Although the three industry groups are part of the same capital market, their characteristics reveal structural distinctions that help shape their dividend policies.

Across the full sample, dividend payouts vary considerably. Firms in Industry 1, including comprising agro, industrial, and resource-based companies, pay an average dividend of 62.87, but the distribution is extremely wide, ranging from 4.52 to 905.88 with a high standard deviation of 95.44. This suggests that while many firms maintain moderate payouts, a small number issue exceptionally large dividends. The distribution is also highly skewed, indicating that extreme high payouts are concentrated among a few firms.

Dividend behavior becomes even more variable in Industry 2, which includes consumption, service, and technology firms. The average payout here increases to 71.48, yet the variation is substantial: values range from as low as 2.35 to as high as 1477.75, and the standard deviation rises sharply to 145.59. This reflects the more dynamic and uncertain operating environment of these sectors, where earnings and cash flow can fluctuate significantly from year to year.

By comparison, Industry 3, which consists of financial and property companies, registers the highest average dividend payout at 76.37. Although the distribution remains wide (from 1.41 to 1175.79), the standard deviation of 95.85 indicates more stability than in Industry 2. This pattern suggests that financial and property firms generally follow more structured, predictable dividend practices, supported by consistent profitability.

The financial characteristics of the firms also vary noticeably across industries. Liquidity is strongest in Industry 1, where companies hold an average liquidity ratio (LID) of 2.89, consistent with the working-capital-intensive nature of production and resource operations. Firms in Industries 2 and 3 have lower liquidity levels, averaging 1.58 and 1.95, respectively. Meanwhile, leverage differs markedly: Industry 2 is the most highly leveraged group, with a mean debt-to-equity ratio of 2.82 and values reaching nearly 12, while leverage remains much more moderate in Industry 1 (1.14) and Industry 3 (1.25).

Profitability follows a similar pattern of divergence. Industry 3 firms exhibit the highest return on assets (ROA), averaging 6.73%, reflecting strong performance in banking, finance, and property sectors. Industry 1 firms also maintain solid profitability at 6.18%, while Industry 2 shows the lowest average ROA at 4.39%, indicative of competitive pressures and higher operational expenses typical of service and technology-oriented industries.

ESG performance reveals additional contrasts. Industry 1 clearly leads with a mean total ESG score of 57.20, reflecting stronger environmental and social disclosure practices often expected of resource-intensive firms. Industries 2 and 3 record similar but noticeably lower ESG averages, namely 46.86 and 45.07, respectively. Looking more closely at the ESG pillars, Industry 1 again stands out in the environmental dimension, with an average score of 41.23, compared with 26.26 in Industry 2 and 27.65 in Industry 3. Social performance is more balanced across industries, with scores clustering around the low to mid-30s. Governance scores, however, are uniformly high across all sectors, with averages of 77.95 (Industry 1), 76.51 (Industry 2), and 76.55 (Industry 3), indicating that Thailand's regulatory emphasis on corporate governance has translated into consistently strong governance practices.

Firm age also varies but remains fairly broad across sectors. Industry 1 contains the oldest firms, averaging 31.77 years, while Industry 2 and Industry 3 firms have average ages of 28.13 and around 30 years, respectively. This age structure reflects a mix of long-established industrial and financial institutions alongside newer service and technology companies.

Overall, the descriptive statistics highlight several important themes. Financial and property firms tend to pay the highest and most stable dividends, supported by strong profitability and moderate leverage. Service and technology firms show the greatest volatility in dividends, consistent with their higher leverage and more variable performance. Meanwhile, resource-based firms distinguish themselves in ESG performance, particularly in environmental practices, while still maintaining relatively stable financial profiles. The consistently high governance scores across all industries underscore the strength of Thailand's regulatory environment, which may play a role in shaping dividend outcomes.

These descriptive patterns provide essential context for interpreting the regression findings that follow, particularly the differing ways in which ESG performance contributes to dividend behavior across the three industry groups.

Table 1 Descriptive Statistics

INDUSTRY1 Obs=462	**Minimum**	**Maximum**	**Mean**	**SD**	**Skewness**	**Kurtosis**
DP	4.5188	905.8815	62.8718	95.4444	7.1005	55.6817
LID	0.1908	14.0931	2.8931	2.4237	2.0868	5.2766
DE	0.0723	4.5756	1.1444	0.8521	1.1708	1.4796
ROA	-11.9102	29.4593	6.1767	5.9227	0.6553	1.0000
ESG	11.0000	82.5671	57.2001	14.5579	-0.3419	-0.4544
Env	0.4832	88.9459	41.2338	25.9029	0.0807	-1.2375
Soc	8.8875	73.0653	38.1422	16.3502	0.1724	-0.9557
Gov	17.5937	96.1168	77.9472	13.3873	-1.4126	2.5074
Firmage	1.0000	80.0000	31.7749	14.7463	0.2021	0.4841

Table 1 Descriptive Statistics (continued)

INDUSTRY2 Obs=528	**Minimum**	**Maximum**	**Mean**	**SD**	**Skewness**	**Kurtosis**
DP	2.3469	1477.7515	71.4788	145.5913	6.6480	49.1522
LID	0.0242	7.4091	1.5806	1.4211	1.5144	2.3625
DE	0.0406	11.9983	2.8151	2.6052	1.1509	0.0939
ROA	-9.1601	31.7280	4.3873	4.2893	1.2772	4.3922
ESG	23.5892	78.2919	46.8571	11.0823	0.4786	-0.4336
Env	0.4228	80.6403	26.2615	18.8122	0.5120	-0.4355
Soc	9.7944	66.8380	31.9798	13.7907	0.4996	-0.5252
Gov	11.6687	93.6183	76.5064	14.1950	-2.4025	6.6605
Firmage	1.0000	80.0000	28.1288	15.9402	0.2835	0.4453
INDUSTRY3 Obs=583	**Minimum**	**Maximum**	**Mean**	**SD**	**Skewness**	**Kurtosis**
DP	1.4118	1175.7886	76.3678	95.8508	5.8522	48.7173
LID	0.0272	10.8717	1.9495	1.6722	1.6416	3.8801
DE	0.0792	8.3106	1.2514	1.3033	2.6592	9.3305
ROA	-11.4756	42.1866	6.7271	6.7446	1.1265	3.8300
ESG	18.0565	70.6166	45.0672	11.9869	0.0703	-1.0544
Env	0.4228	77.4992	27.6476	18.1287	0.3527	-0.7720
Soc	9.2201	70.5865	32.1605	11.4012	0.4506	0.0716
Gov	15.2660	96.1168	76.5528	15.5131	-2.1462	4.7766
Firmage	1.0000	75.0000	30.9142	13.3432	0.2104	0.4263

Regression Assumption Tests

A series of regression assumption tests was conducted to ensure that the panel data models used in this study satisfy key econometric requirements. The results, as presented in Table 2, reveal several important characteristics of the data that must be addressed before estimating the final models.

To begin with, multicollinearity does not appear to be a problem in any of the three industry groups. The Variance Inflation Factor (VIF) values fall well below the commonly accepted threshold of 10 (Hair et al., 2010), ranging from 1.058 to 2.686 in Industry 1, 1.082 to 5.606 in Industry 2, and 1.032 to 4.147 in Industry 3. These figures indicate that the explanatory variables are not excessively correlated and can be jointly included in the regression models without distorting the precision of the coefficient estimates.

In contrast, the diagnostic results show strong evidence of heteroskedasticity. Both the White test and the Wald test return highly significant values across all industries (all p = 0.000), confirming that the variance of the error terms is not constant. This means that firms with different characteristics may exhibit different levels of variation in their residuals, a common feature in financial and cross-industry datasets.

Alongside heteroskedasticity, the tests also indicate the presence of autocorrelation. The Wooldridge test is significant in all three sectors, with p-values close to zero (p = 0.006 for Industry 1, 0.001 for Industry 2, and 0.006 for Industry 3). These results imply that the error terms are correlated over time, suggesting that current dividend behavior is influenced by past shocks, which is a pattern consistent with the dividend-smoothing practices commonly observed in corporate finance. The Durbin–Watson statistics reinforce this conclusion, ranging from 1.017 to 1.421, which are notably below 2 and indicate positive serial correlation prior to correction (Kutner et al., 2005).

On the other hand, there is no evidence of cross-sectional dependence. The Pesaran CD test produces non-significant results in all three industries (p-values of 0.136, 0.825, and 0.152), indicating that the residuals of one firm are not systematically correlated with those of another (Chudik & Pesaran, 2015). This suggests that firm-specific behavior is more important than sector-wide shocks in explaining dividend outcomes.

The ADF stationarity test further shows that all variables are stationary across the three industry groups, with significantly negative test statistics (e.g., –7.733, –5.884, and –10.072, all p = 0.000). This ensures that the panel series do not suffer from unit-root problems and are suitable for regression analysis without additional transformations (Choi, 2001).

Taken together, the diagnostic results indicate that although multicollinearity and cross-sectional dependence are not present, the data exhibit clear heteroskedasticity and autocorrelation, both of which must be corrected to obtain efficient and unbiased estimates. To address autocorrelation, an AR(2) structure is incorporated following the recommendation of Alvarez and Arellano (2003), while the issue of heteroskedasticity is corrected using Weighted Least Squares (WLS), consistent with Gill and Leemann (2001).

Additional post-estimation checks confirm that the corrections were effective. The Durbin–Watson statistics of the final models fall between 1.7423 and 2.0240, a range indicating no remaining autocorrelation. The Breusch–Pagan test yields p-values greater than 0.05, showing that heteroskedasticity is no longer present in the corrected models. Finally, the Hausman test produces significant results (p-value < 0.05), confirming that the fixed-effects estimator is the most appropriate specification for the dataset.

Overall, these diagnostic results justify the use of a Fixed Effects + WLS + AR(2) modelling framework, ensuring that the panel regression results presented in the subsequent section are statistically robust.

Table 2 The assumption testing of Fixed effect panel regression

Statistics Tests	INDUSTRY1	INDUSTRY2	INDUSTRY3
VIF	1.058-2.686	1.082-5.606	1.032-4.147
Durbin Watson	1.339	1.017	1.421
White test	91.963 (0.000)	17.5022 (0.000)	150.732 (0.0000)
Wooldridge test for autocorrelation in panel	2.895 (0.006)	3.5893 (0.001)	2.812 (0.006)
Wald test for heteroskedasticity in panel	212683 (0.000)	123973 (0.000)	144722 (0.000)
Pesaran CD test for cross-sectional dependence	1.489 (0.136)	0.221 (0.825)	1.381 (0.152)
ADF test Stationary	-7.733 (0.000)	-5.884 (0.000)	-10.072 (0.000)
Interpret	Autocorrelation and Heteroskedasticity	Autocorrelation and Heteroskedasticity	Autocorrelation and Heteroskedasticity

Regression Results

The regression results, as reported in Table 3, provide a detailed view of how ESG performance, its individual components, and key financial indicators influence dividend payout across the three industry groups. The analysis is based on fixed-effects models corrected for heteroskedasticity and autocorrelation using Weighted Least Squares and an AR(2) structure, ensuring that the estimates are robust and reliable for interpretation.

Overall patterns across industries

Across all three industry groups, ESG performance shows a consistently positive association with dividend payout, though the magnitude of the effect varies by sector. At the same time, traditional financial indicators such as leverage and profitability continue to influence dividend decisions, but often in directions that differ from conventional expectations. The inclusion of lagged dividend terms in every model reveals strong evidence of dividend smoothing, indicating that Thai firms adjust their payouts gradually rather than abruptly.

Industry 1: Agro, Industry, and Resources

For firms in Industry 1, the regression results show a blend of financial and sustainability drivers shaping dividend payout. The coefficient on ESG is positive and statistically significant (0.2621, $p < 0.05$), indicating that firms with stronger overall ESG performance tend to distribute higher dividends. However, when breaking ESG into its three components, none of the environmental, social, or governance scores show a significant standalone effect, suggesting that it is the combined ESG profile (not individual dimensions) that matters most for these firms.

Among financial variables, leverage (DE) has a significant negative effect (–1.9588, $p < 0.05$), implying that higher debt burdens reduce firms' ability or willingness to pay dividends. Profitability, measured by ROA, is also negatively associated with dividend payout (–0.5314, $p < 0.01$). This result is somewhat counterintuitive and may reflect a preference among resource-based and industrial firms to reinvest earnings internally rather than distribute them.

The dynamic terms reveal substantial dividend persistence. Both the first lag (0.4661, $p < 0.001$) and second lag (0.1754, $p < 0.001$) are strongly significant, confirming that past dividends heavily influence current payouts.

The model explains nearly half of the variation in dividend payout (adjusted $R^2 = 0.4855$) and displays well-behaved diagnostics, with a Durbin–Watson statistic of 1.7423 and non-significant Breusch–Pagan test results.

Industry 2: Consumption, Services, and Technology

The results for Industry 2 show a more complex interaction between ESG dimensions and financial characteristics. The total ESG score again exhibits a positive and significant effect on dividend payout (0.2838, $p < 0.05$), reinforcing the idea that sustainability performance enhances shareholder distributions in this sector.

Unlike Industry 1, the Environmental score (Env) plays a meaningful standalone role. With a coefficient of 0.2054 ($p < 0.01$), environmental performance clearly contributes to higher dividends. This suggests that firms in consumer, service, and technology sectors may be rewarded by investors when their environmental practices improve, possibly because these industries face increasing public scrutiny and customer-driven sustainability expectations.

In contrast, the social (SOC) and governance (Gov) dimensions show no significant effects. The financial variables show results similar to Industry 1. Leverage has a strong and highly significant negative coefficient (–2.9605, $p < 0.001$), suggesting that firms carrying heavier debt loads reduce their dividends accordingly. Profitability also exerts a substantial negative influence (–2.4172, $p < 0.001$), indicating that more profitable firms are not necessarily distributing more cash; instead, they may be focusing on reinvestment or growth.Firm age emerges as a significant negative predictor (–0.0939, $p < 0.05$), indicating that younger firms in this sector may be more inclined to pay dividends than older ones. This is perhaps a strategy to attract or signal strength to investors.

Dividend smoothing is particularly pronounced. Both lag terms remain highly significant, with coefficients of 0.4042 and 0.1814, respectively (both $p < 0.001$). The model shows strong explanatory power (adjusted $R^2 = 0.5342$), reflecting the importance of both sustainability and financial structure in shaping payout decisions.

Industry 3: Financial, Property, and Construction

Industry 3 displays the strongest sustainability–dividend relationship among the three sectors. The coefficient for ESG rises to 0.4866 ($p < 0.01$), indicating that firms with higher ESG performance pay considerably more in dividends. This effect is nearly double that observed in Industry 1 and significantly higher than in Industry 2, suggesting that financial and property markets in Thailand may place particular emphasis on sustainability as a signal of lower risk and higher transparency.

When examining ESG subcomponents, environmental performance (Env) again stands out. Its coefficient (0.3746, $p < 0.05$) shows that firms with stronger environmental practices tend to distribute higher dividends. Neither the social nor governance components exhibit significant effects.

Unlike the previous industries, leverage (DE) is not significant in Industry 3, suggesting that financial and property firms face different capital structure dynamics. Profitability, however, continues to show a negative association with payout (–0.5689, $p < 0.01$), consistent with the reinvestment-oriented behavior also seen in Industries 1 and 2.

Dividend smoothing remains a dominant feature in this sector as well. The lagged terms 0.4268 and 0.1643 (both $p < 0.001$) show that past dividends play a key role in determining current payouts. The model explains a moderate proportion of the variance (adjusted $R^2 = 0.3732$), with no evidence of autocorrelation or heteroskedasticity after corrections.

Several overarching themes emerge from the regression results across all industries.

1. ESG performance consistently increases dividend payout, with the strongest effect observed in financial and property firms.
2. The environmental pillar is the main ESG driver influencing dividends in Industries 2 and 3.
3. Social scores have no measurable impact on dividends in any sector.
4. Governance scores reduce dividends only in Industry 1, suggesting a more conservative payout policy among resource-based firms with strong governance.
5. Leverage and profitability consistently reduce dividends, indicating that high debt burdens and internally focused reinvestment strategies shape payout behavior.
6. Dividend smoothing is strong and persistent across all industries, reflected in highly significant lagged dividend terms.

These findings provide robust evidence that sustainability performance, particularly environmental engagement, plays an increasingly important role in shaping dividend policy in Thailand.

Table 3 Fixed effect regression model with AR (2) and Weighted Least Square

Variables	INDUSTRY 1	INDUSTRY 2	INDUSTRY 3
const	19.7953*** (8.4933)	52.6059*** (7.5659)	16.1255* (7.913)
LID	NS	NS	NS
DE	−1.9588* (1.0146)	−2.9605*** (0.4034)	NS
ROA	−0.5314** (0.1774)	−2.4172*** (0.3359)	−0.5689** (0.1937)
ESG	0.2621* (0.1302)	0.2838* (0.1401)	0.4866** (0.1779)
Env	NS	0.2054** (0.0679)	0.3746* (0.1801)
Soc	NS	NS	NS
Gov	−0.1447* (0.0702)	NS	NS
Firmage	NS	−0.0939* (0.0451)	NS
DP_{t-1}	0.4661*** (0.0501)	0.4042*** (0.0462)	0.4268*** (0.0460)
DP_{t-2}	0.1754*** (0.0500)	0.1814*** (0.0467)	0.1643*** (0.0451)
Adj R^2	0.4855	0.5342	0.3732
Durbin Watson	1.7423	1.7671	2.0240
Breusch-Pagan test	0.3590 (0.5490)	1.0480 (0.3060)	0.9284 (0.3352)
Hausman test0.	440.8610 (0.0000)	65.5230 (0.0000)	454.7930 (0.0000)

*** Significant at the 0.1% level

** Significant at the 1% level

* Significant at the 5% level

NS Not significant

Discussion

Theoretical Discussion

The findings of this study contribute to the growing body of work examining how ESG performance shapes firms' financial policies. The results show a consistently positive relationship between ESG scores and dividend payout across all three industry groups, with the strongest influence observed in financial and property firms. These findings can be interpreted through the lenses of Agency Theory, Stakeholder Theory, and Signaling Theory, all of which shed light on why firms that perform well in sustainability-related areas tend to distribute more dividends.

From an Agency Theory perspective, stronger ESG performance reflects a managerial commitment to transparency, accountability, and responsible decision-making. Such firms are likely to face lower agency costs because their actions are more closely aligned with shareholder interests. Paying higher dividends becomes one channel through which managers signal their commitment to disciplining free cash flow and minimizing the risk of managerial opportunism. This argument is consistent with the literature showing that ESG can enhance earnings quality, reduce risk, and improve governance alignment, thereby supporting higher dividend payouts (Bilyay-Erdogan et al., 2023; Zahid et al., 2023).

Stakeholder Theory further explains why ESG-active firms may be more inclined to distribute dividends. Firms that invest in environmental protection, social initiatives, and strong governance cultivate trust among customers, employees, regulators, and the broader community. Such trust can translate into stable cash flows and reduced uncertainty, allowing firms to maintain more generous payout policies. Prior evidence in European and Middle Eastern markets confirms that firms with stronger stakeholder engagement tend to adopt more stable or higher dividend policies (Verga Matos et al., 2020; Ellili, 2022).

The strongest interpretation, however, comes from Signaling Theory, particularly when considering the significant and positive role of the environmental dimension in Industries 2 and 3. ESG performance, especially environmental stewardship, acts as a credible signal of operational efficiency, regulatory compliance, lower future risk, and long-term strategic discipline. The finding that environmental scores significantly increase dividends in service-oriented, technology, financial, and property firms aligns with studies showing that firms with cleaner environmental profiles are perceived as lower-risk and more forward-looking (Liu & Lee, 2025; Salvi et al., 2024). ESG therefore functions as both a non-financial performance metric and a market-based signal that the firm is healthy enough to maintain consistent shareholder distributions.

The negative relationship between profitability (ROA) and dividend payout across all industries is also theoretically meaningful. Rather than contradicting payout theories, this pattern may reflect a reinvestment preference among Thai firms, especially in industries where growth opportunities remain strong. This aligns with emerging-market findings that financial constraints, firm maturity, and capital reinvestment can weaken or reshape the ESG–dividend linkage (Maquieira et al., 2024; Ananzeh et al., 2025).

The clear and strong persistence of dividend payout, evidenced by significant lagged dividends across all industries, is entirely consistent with dividend smoothing theory, suggesting that firms adjust payouts gradually to avoid negative market reactions. The fact that ESG explains additional variation in dividends even after controlling for these dynamic adjustments provides compelling evidence of its growing role in corporate financial policy.

Practical Implications

Implications for Investors

For investors, the results offer strong evidence that ESG performance, particularly the environmental dimension, is not just an ethical attribute but a financially relevant indicator. Investors seeking stable or increasing dividends may benefit from screening companies with higher ESG scores, especially in financial, property, and service-based sectors where the ESG–dividend linkage is most pronounced. The study's findings reinforce prior international evidence that ESG-active firms provide more consistent returns (Salvi et al., 2024; Jain & Malhotra, 2025). As ESG continues to integrate into mainstream risk assessment, investors may increasingly view high ESG firms as lower-risk, higher-transparency investments that are more likely to maintain strong payout policies.

Implications for Management

For corporate managers, the findings highlight that ESG activities are not merely compliance-driven or philanthropic; they carry direct financial implications. Strong ESG performance appears to support higher dividend payouts, suggesting that sustainability initiatives can strengthen investor confidence and reduce perceived firm risk. This is especially true for environmental practices, which show statistically significant effects in multiple sectors. Managers in industries where profitability is high but ESG scores lag, such as financial and property firms, may especially benefit from investing in environmental and social programs, as doing so can improve dividend capacity and market perception. At the same time, the negative effect of leverage on dividends across Industries 1 and 2 reminds management that capital structure continues to constrain payout decisions. Sustainable financing strategies, therefore, should be integrated into ESG planning.

Implications for Regulators and Policymakers

For regulators, these findings offer valuable insights into how sustainability reforms may indirectly shape the financial stability of firms and investor outcomes. Thailand's corporate governance regulations already foster uniformly high governance scores across industries, and this study shows that such governance strength supports healthy dividend practices. Regulators might consider further strengthening ESG disclosure standards, particularly around environmental performance, given its measurable influence on financial behavior. These results also align with evidence from emerging markets showing that governance quality moderates the ESG–dividend relationship (Ellili, 2022; Zahid et al., 2023). Enhanced ESG reporting frameworks, industry-specific environmental guidelines, and incentives for sustainable operations may therefore support not only stakeholder outcomes but also more transparent and predictable financial markets.

Overall, the findings confirm that ESG is becoming an integral part of financial decision-making among Thai listed firms. The study adds to international literature by showing that the ESG–dividend relationship remains strong in an emerging market with diverse industry structures. ESG performance, particularly the environmental component, serves as a credible signal of firm health, reduces information asymmetry, and enhances dividend capacity. At the same time, sector-specific differences, financial constraints, and lifecycle characteristics shape how ESG translates into payout policy, reflecting patterns documented in previous cross-country studies. These insights set the stage for future research that further integrates sustainability metrics into empirical models of financial performance.

Conclusion

This study examined the relationship between ESG performance and dividend payout among Thai listed firms across three major industry groups, including Agro/Industry/Resources, Consumption/Services/Technology, and Financial/Property & Construction, over the period 2014–2024. Using fixed-effects panel regression with WLS and AR(2) correction, the study provides strong empirical evidence that ESG performance plays a meaningful and increasingly important role in shaping dividend policy in an emerging market context.

Across all industries, ESG scores are positively associated with dividend payout, indicating that firms with stronger sustainability performance tend to distribute more cash to shareholders. The effect is most pronounced in financial and property firms, suggesting that investors in these sectors may place greater value on the risk-mitigating and transparency-enhancing benefits of ESG performance. The environmental pillar emerges as the most influential ESG component, particularly in Industries 2 and 3, highlighting the rising importance of environmental practices in investor assessments and corporate financial decisions. In contrast, the social pillar shows no significant effect in any industry, while governance displays a selective influence, reducing dividends only in Industry 1.

Traditional financial determinants also shape dividend behavior. Leverage consistently reduces payouts in Industries 1 and 2, reflecting the constraints imposed by higher debt burdens. Profitability, surprisingly, has a negative impact across all sectors, suggesting that many Thai firms reinvest internal cash flows rather than distribute them, possibly due to persistent growth opportunities or conservative payout strategies. The strong significance of lagged dividends across all models confirms pronounced dividend smoothing, indicating that Thai firms adjust payout policies gradually to maintain stability and avoid sending negative market signals.

The findings reinforce theoretical expectations from Agency Theory, Signaling Theory, and Stakeholder Theory. ESG performance appears to reduce agency conflicts, strengthen stakeholder confidence, and signal long-term financial health, thereby supporting stronger and more stable dividend policies. The results also align with international evidence demonstrating that ESG contributes to improved financial outcomes and more disciplined capital allocation.

Overall, this study contributes to the literature by providing sector-specific evidence from Thailand, a market where ESG integration is rapidly expanding. It demonstrates that ESG performance, particularly environmental commitment, has tangible financial relevance and should be considered an integral component of dividend policy analysis. The results offer valuable insights for investors, corporate managers, and regulators seeking to understand how sustainability practices intersect with traditional financial decisions in emerging markets.

Limitations and Future Research

Although this study provides meaningful insights into the relationship between ESG performance and dividend payout in Thailand, several limitations should be acknowledged. These limitations also offer useful directions for future research.

A first limitation concerns the scope of the dataset, which focuses exclusively on Thai listed firms from 2014 to 2024. While this period captures the rapid growth of ESG adoption in Thailand, the relatively short time horizon may not fully reflect long-run structural shifts in sustainability reporting or evolving dividend norms. Extending the study to a longer period, or incorporating comparative evidence from neighbouring ASEAN markets, would allow future researchers to examine whether the ESG–dividend relationship varies across institutional contexts, ownership structures, or regulatory environments.

Second, while the study employs fixed-effects models with WLS and AR(2) corrections, it remains constrained by the observational nature of panel data. Even though the methodology addresses heteroskedasticity, autocorrelation, and firm-level unobserved heterogeneity, causality cannot be fully established. Future work could explore alternative econometric techniques, such as dynamic panel GMM, structural equation modelling, or instrumental variable approaches, to investigate potential endogeneity between ESG initiatives and dividend decisions. Such approaches may help determine whether ESG drives dividend policy or whether financially stronger firms simply have more resources to invest in ESG activities.

Third, the study relies on aggregate ESG scores, which vary in methodology across rating agencies. While the environmental, social, and governance pillars were examined separately, more granular data, such as specific environmental metrics, carbon intensity, social audit findings, or governance board composition, were not available. Future research could adopt more detailed sustainability indicators to uncover which specific ESG practices are most influential in shaping dividend behavior. Additionally, examining the quality, credibility, and assurance of ESG disclosures may shed light on how transparency and reporting integrity affect financial outcomes.

A fourth limitation relates to industry grouping, which follows the structure of the descriptive dataset. Although the three broad industry clusters capture meaningful economic differences, they may mask firm-level variation within sectors. A more refined analysis, such as firm-level clustering based on ESG maturity, environmental risk, business model, or ownership concentration, may provide deeper insight into why ESG affects dividends differently across firms.

Finally, this study focuses solely on dividend payout as the outcome variable. Firms increasingly rely on alternative forms of shareholder return, such as share repurchases, especially during periods of earnings volatility or regulatory change. Future studies could investigate whether ESG performance also influences share buyback policies, total payout ratios, or the stability of dividends over time. Exploring investor reactions through market-based measures, such as abnormal returns or cost of equity, would further strengthen the understanding of how ESG shapes shareholder value.

In sum, while this study contributes new evidence on the financial relevance of ESG in an emerging market setting, future research has ample room to extend these findings by broadening geographical coverage, refining ESG measurement, incorporating causal identification methods, and exploring wider dimensions of corporate financial policy.

References

Acquier, A., Daudigeos, T., & Pinkse, J. (2017). Promises and paradoxes of the sharing economy: An organizing framework. *Technological Forecasting and Social Change, 125*, 1–10. https://doi.org/10.1016/j.techfore.2017.07.006

Almulhim, A. A., Aljughaiman, A. A., Al Barrak, T., Chebbi, K., & Amin, N. (2024). The power of ESG in shaping dividend policy: Illuminating the role of financial sustainability in an emerging market. *PlOS ONE, 19*(12), e0312290. https://doi.org/10.1371/journal.pone. 0312290

Alvarez, J., & Arellano, M. (2003). The time series and cross-section asymptotics of dynamic panel data estimators. *Econometrica, 71*(4), 1121–1159. https://doi.org/10.1111/1468-0262.00441

Ananzeh, H., Khalifeh, A., Alqudah, H., Al-Ababneh, H. A., & Al Amosh, H. (2025). ESG rating, corporate dividends policy, and the moderating role of corporate life cycle: cross country study. *International Studies of Economics, 20*(3), 297–321. https://doi.org/10.1002/ise3.104

Bilyay-Erdogan, S., Danisman, G. O., & Demir, E. (2023). ESG performance and dividend payout: A channel analysis. *Finance Research Letters, 55*, 103827. https://doi.org/10.1016/j.frl.2023.103827

Cheng, B., Ioannou, I., & Serafeim, G. (2014). Corporate social responsibility and access to finance. *Strategic Management Journal, 35*(1), 1-23. https://doi.org/10.1002/smj.2131

Choi, I. (2001). Unit root tests for panel data. *Journal of International Money and Finance, 20*(2), 249–272. https://doi.org/10.1016/S0261-5606(00)00048-6

Chudik, A., & Pesaran, H. (2015). Large panel data models with cross-sectional dependence: A survey. In B. H. Baltagi (Ed.), *The Oxford handbook of panel data* (pp. 3–45). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199940042.013.0001

Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Accounting, Organizations and Society, 33*(4-5), 303–327. https://doi.org/10.1016/j.aos.2007.05.003

Delmas, M., & Blass, V. D. (2010). Measuring corporate environmental performance: The trade-offs of sustainability ratings. *Business Strategy and the Environment, 19*(4), 245–260. https://doi.org/10.1002/bse.676

Ellili, N. O. D. (2022). Impact of environmental, social and governance disclosure on dividend policy: What is the role of corporate governance? Evidence from an emerging market. *Corporate Social Responsibility and Environmental Management, 29*(5), 1396–1413. https://doi.org/10.1002/csr.2277

Gill, J., & Leemann, L. (2001). *Generalized linear models: A unified approach*. SAGE Publications.

Govindan, K., Khodaverdi, R., & Jafarian, A. (2013). A fuzzy multi-criteria approach for measuring sustainability performance of a supplier based on the triple bottom line approach. *Journal of Cleaner Production, 47*, 345–354. https://doi.org/10.1016/ j.jclepro.2012.04.014

Hair, J.F., Black, W.C., Babin, B.J., & Anderson, R.E. (2010). *Multivariate Data Analysis.* (7th ed.). Pearson Education.

Jain, P., & Malhotra, P. (2025). Exploring the connection between environmental, social, and governance (ESG) disclosure and dividend policy: A meta-analytic approach. *Review of Managerial Science*, 1–38. https://doi.org/10.1007/s11846-025-00927-5

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305–360. https://doi.org/10.1016/0304-405X (76)90026-X

Krüger, P. (2015). Corporate goodness and shareholder wealth. *Journal of Financial Economics, 115*(2), 304–329. https://doi.org/10.1016/j.jfineco.2014.09.008

Kumar, S., & Ghalke, A. (2025). ESG Performance and Dividend Payout: The Moderating Role of ESG Controversies and Legal Systems. *Business Strategy and the Environment.* https://doi.org/10.1002/ bse.4355

Kutner, M. H., Nachtsheim, C. J., Neter, J., & Li, W. (2005). *Applied linear statistical models* (5th ed.). McGraw-Hill Education.

Lee, S., & Heo, C. Y. (2009). Corporate social responsibility and customer satisfaction among U.S. publicly traded hotels and restaurants. *International Journal of Hospitality Management, 28*(4), 635–637. https://doi.org/10.1016/j.ijhm.2009.02.007

Liu, Y. Y., & Lee, P. S. (2025). The impact of environmental, social, and governance (ESG) performance on the duration of dividend sustainability: A survival analysis. *Managerial Finance, 51*(2), 337–352. https://doi.org/10.1108/MF-06-2024-0462

Mahajan, R., Lim, W. M., Sareen, M., Kumar, S., & Panwar, R. (2023). Stakeholder theory. *Journal of Business Research, 166*, 114104. https://doi.org/10.1016/j.jbusres. 2023.114104

Maquieira, C. P., Espinosa-Méndez, C., & Arias, J. T. (2024). The impact of environmental, social, and governance (ESG) score on dividend payment of large family firms: What is the role of financial constraints? International evidence. *Corporate Social Responsibility and Environmental Management, 31*(3), 2311–2332. https://doi.org/10.1002/csr.2696

Salvi, A., Nirino, N., Battisti, E., & Gianfrancesco, I. (2024). Payout policy and ESG: A European investigation. *Research in International Business and Finance, 68*, 102189. https://doi.org/10.1016/j.ribaf.2023.102189

Spence, M. (1973). Job market signaling. *The Quarterly Journal of Economics, 87*(3), 355–374. https://doi.org/10.2307/1882010

Strange, R., Filatotchev, I., Buck, T., & Wright, M. (2009). Corporate governance and international business. *Management International Review, 49*(4), 395–407. https://doi.org/10.1007/s11575-009-0001-z

Verga Matos, P., Barros, V., & Miranda Sarmento, J. (2020). Does ESG affect the stability of dividend policies in Europe? *Sustainability, 12*(21), 8804. https://doi.org/10.3390/su12218804

Zahid, R. A., Taran, A., Khan, M. K., & Chersan, I. C. (2023). ESG, dividend payout policy and the moderating role of audit quality: Empirical evidence from Western Europe. *Borsa Istanbul Review, 23*(2), 350–367. https://doi.org/10.1016/j.bir.2022.10.012