# Exploring the Nexus between Company ESG Performance and Dividend Policy: An Aggregate, Disaggregate, and Industry-Wide Panel Analysis

Dr. Harnesh Makhija[1], Dr. P.S. Raghukumari[2] and Dr. Dipasha Sharma[3]

**Abstract**

In this study, we explore the relationship between Environmental, Social, and Governance (ESG) and Dividend policy (DP) for Indian companies from an aggregate (ESG effect), disaggregate perspective (E, S, and G effect) with industry-wide analysis. A system generalised method of moments technique was applied under a dynamic panel data setup to five years of data from 2015 to 2020 with 1520 firm observations of 304 companies from the NSE-500 index. This provided reliable and robust results. We found an ESG-DP positive relationship in the aggregate effect. The company's governance performance has no significant effect on DP; however, environmental and social performance both positively impact DP. Industry-wide analysis results show that the capital goods and health care industries positively associate with ESG-DP, whereas financial services and FMCG industries show no association. ESG-DP positive relationship signals that investments in sustainability can create high value for shareholders and other stakeholders. Though the overall ESG-DP nexus is positive, governance performance with DP is insignificant, indicating that companies with good governance scores have already leveraged positivity and, hence, focus only on capital appreciation. Industry results indicate that capital goods and health services industries invest more in ESG and pay dividends to improve their perception. The performance of ESG factors alone should not affect investor decisions in the financial services and FMCG industries. This pioneering study on India after the 2014 mandatory reforms explores the relationship between ESG-DP in terms of aggregate, disaggregate effect with an industry-wide analysis and recommendations.

**Keywords:** ESG, Dividend policy, System GMM

[1] harnesh@somaiya.edu. Department of Finance, KJ Somaiya Institute of Management, Somaiya Vidyavihar University, Mumbai, India

[2] raghukumari@somaiya.edu. Department of Finance, KJ Somaiya Institute of Management, Somaiya Vidyavihar University, Mumbai, India

[3] dipasha_sharma@scmhrd.edu. Symbiosis Centre for Management and Human Resource Development, Symbiosis International (Deemed) University, Pune, India.

# 1. Introduction

Non-financial disclosures, such as ESG (Environmental, Social, and Governance) factors have become increasingly important for businesses in the current landscape as stakeholders, particularly investors, are judging the companies based on these sustainable parameters (Garcia et al., 2017; Buallay, 2019; Broadstock et al., 2020). Europe and the United States led the increase in global ESG investments from $2.24 billion to $2.5 billion between 2012 and 2022 (Morningstar, 2022). It remains unclear whether emerging markets are experiencing the same phenomenon, and whether investors are attempting to align their investments with the company's sustainable performance.

India began its sustainability reforms as early as 1972 by establishing the Ministry of Environment and Forestry. In 2013, the country made 2% mandatory Corporate Social Responsibility (CSR) related spending, and in 2017, it committed to 17 Sustainable Development Goals (SDGs). Furthermore, in 2021, India pledged to achieve net zero emissions by 2070. Despite taking numerous steps in the sustainability journey, India is struggling to meet 19 SDGs by 2030 (Subramanian, 2023), which is alarming. To achieve these goals, business organisations, the government, and the public have to play a pivotal role. Indeed, motivating organisations in emerging markets like India to invest in sustainability is critical, as they are driven by the profit motive (based on trade-off theory) and may tend to neglect these sustainability issues due to the lack of resources and budgets. Research on ESG investments and dividend payout is essential for investors, companies, policymakers, and communities, as it sheds light on the relationship between sustainable investing and financial performance.

The integration of ESG into business policies has immensely helped companies in meeting stakeholder expectations, specifically shareholders, driving innovation, better-managing risks (such as avoiding penalties and fines), gaining better access to capital, and complying with regulations (Mukherjee and Nunez, 2019). However, a significant dilemma exists in corporate finance regarding whether companies should invest in sustainability parameters, as such investments consume resources and may impact profitability. According to the trade-off theory, ESG investments are considered costs incurred by the firm. They can affect corporate decisions, such as retention and dividend payout ratios (DP), reducing profits.

On the other hand, the stakeholder theory states that a firm's ultimate objective should be wealth maximisation for the shareholders through capital appreciation

and DP, and therefore, additional costs of implementing ESG should be avoided. Signaling theory suggests that profitable companies prefer to declare dividend payouts, which is considered positive news and greatly influences shareholders' buying or selling decisions. However, agency theory criticises signaling theory, arguing that companies may prefer to reinvest in the existing business when they earn abnormal profits rather than declaring dividends.

In addition, the relevance theory supports that dividends impact firm value, while the irrelevance theory (Miller and Modigliani, 1961) asserts that investments and cost of capital induce value and are independent of the dividend decision. Hence, for most firms, the question of whether to invest more in ESG and whether to declare dividend payouts remains daunting.

Companies must make effective decisions regarding their financing, investments, and dividends to increase firm value. As businesses seek to meet the sustainability requirements of their stakeholders and increase their value, they are compelled to focus on sustainability aspects such as improving ESG disclosures (Manita et al., 2108). The importance of fulfilling sustainability requirements for businesses makes it understandable that focusing resources and efforts on ESG compliance could influence financial management decisions such as retention ratio and DP (AI-Shammari et al., 2021). Because both compete for the company's resources and add value, the study's objective is to determine whether the company's ESG score impacts its DP.

The nexus between ESG and DP has been studied in the direction of the relationship, wealth management, and relevancy. For example, Adaoglu (2000) argues that ESG disclosures of the company indicate their focus on sustainability, and thus, companies can achieve high value without paying dividends. However, Li and Zhao (2008) argue that investors can earn higher dividends through this open information environment. Supporting this, Kim and Jeon (2015) found that firms try to maximise wealth by satisfying the needs of the shareholders as well as other stakeholders by paying dividends.

In the last decade, businesses have realised the importance of focusing on sustainability as it helps them reduce information asymmetry (Cui et al., 2018), better access to capital (Cheng et al., 2014), lower cost of capital (EI Goul et al., 2011), and an increase in firm value (AI-Shammari et al., 2021), which ultimately enhances the firm's reputation in the eyes of the shareholders. Studies conducted by Samet and Jarboui (2017), Cheung et al. (2018), and Benlemlih (2019) advocate that investments in ESG positively influence the DP decision. Contrary to this, Abdel-Wanis (2020) and Saeed and Zamir (2021) argue that sustainability investments consume resources, reducing profits and dividends. Furthermore, the

ESG-DP relationship has been studied across countries such as the US (Benlemlih, 2019), Europe (Samet and Jarboui, 2017), and China (Ni and Zhang, 2019), yielding mixed results on this relationship. A study in India found a positive relationship in the nexus between mandated CSR aspects (Dahiya et al., 2023) and DP.

However, a literature review study conducted by Mohapatra and Panda (2022) highlighted the research gap that the ESG-DP relationship varies across geographies and industries, and hence industry-wide analysis is highly recommended in this research area. Similarly, Das et al. (2019) conducted a literature review study on sustainability aspects in the SME sector and urged future research to focus on industry-based studies, as this direction can offer better insights into the heterogeneity of the ESG-DP relationship across different industries. Therefore, our study aims to fill this research gap by addressing this relationship in the case of ESG aggregate effect, disaggregate effect, and industry-wise relationship.

A study of the relationship between ESG and DP across the industry contributes in several ways. Firstly, industries operate with distinct characteristics in distinct environments. For example, most polluting industries, such as the energy and capital goods industries, have different ESG strategies than the technology or financial services sectors. Secondly, different industries may have different shareholder bases and expectations. For example, sustainability-conscious investors may prioritise ESG aspects over conventional investors. Finally, examining the relationship industry-wise guides companies on how different types of investors react to ESG aspects and how this affects DP. Ultimately, studying the relationship of ESG-DP by industry can help all stakeholders better understand the factors influencing dividend policy in specific industries and guide them on benchmarks and best practices. Our study aims to answer the following research questions based on these arguments.

*RQ1: Do ESG disclosures impact DP, and does this relationship vary across industries?*

*RQ2: How do E, S, and G disclosure scores individually impact the DP?*

Our study uses a sample of NSE (National Stock Exchange)-500 for the period ranging between 2015 and 2020, which corresponds to the sustainability reform era in India. To address the endogeneity issues, we employ a robust system GMM panel regression method to investigate the relationship. Results indicate a positive and significant relationship between the overall ESG score and DP. Environmental and Social performance shows a positive and significant

relationship with DP, while governance performance was insignificant. The positive ESG-DP results suggest that investors in India should use ESG data alongside financial parameters to supplement their long-term decision-making. However, they should exercise caution when companies invest in governance reforms, as the relationship has no significance. Capital goods and healthcare industries showcase a positive ESG-DP relationship, while financial services and Fast-Moving Consumer Goods (FMCG) industries exhibit a non-significant relationship. These findings suggest that regulators in India should further accelerate mandatory disclosures to attract more domestic and foreign investors into Indian financial markets. The current study significantly contributes to corporate finance and ESG research by providing specific results regarding overall and industry-wise robust findings. These findings are immensely helpful to regulators, policymakers, and boards of directors as they can shape sustainability policies, allocate budgets, and decide on retention ratio and DP.

The structure of our study is as follows. The theoretical context and hypothesis development are presented in Section 2. On the relationship between ESG -DP, we explore stakeholder theory, trade-off theory, agency theory, and signaling theory. The methodology, research design, sample, and data descriptions are presented in Section 3. The benefits and suitability of the system GMM are highlighted in this part, along with the justification of the variables used to answer our research questions. Results and discussion of the system GMM model on ESG-DP are shown in Section 4. The research's implications, limitations, and future directions are presented in Section 5, and Section 6 concludes the paper.

## 2. Literature review and hypotheses development

### 2.1 Literature review on ESG-DP relationship

Dividend policy is the decision taken by management and the board that determines if dividends are to be paid or not and at what rate (Rampershad and De Villiers, 2019). The dividend payout ratio is considered to be the representation of the dividend policy. This concept is further explained in four dimensions. First, companies calculate dividends from the 'profit after tax' component after deciding on the retention ratio. This phenomenon can be mostly witnessed in emerging countries such as India, Brazil, and China (Adaoglu, 2000). Second, companies may prefer to maintain regular dividends irrespective of fluctuations in the market, economy, and earnings. This phenomenon can be observed in developed countries such as the US (Skinner and Soltes, 2011). Third, some profitable companies follow Walter's model and try to declare maximum dividends to satisfy the shareholders, on the other hand, despite

earning high profits, some companies aim to balance between DP and retention ratio to maximise shareholders' wealth. Fourth, the relevancy theory states that investors may prefer regular dividends over capital gains and that a company's dividend payout can indicate financial efficiency and profitability to investors. Contrary to the irrelevance theory (Miller and Modigliani, 1961), which states that investors prefer total return, including dividends and capital appreciation. Therefore, a company's decision to pay a dividend or retain the money in the existing business does not impact the stock price. The debate on relevance or irrelevance is continuing, and the researchers have brought mixed shreds of evidence and concluded that there is no consensus on it. Overall, the dividend puzzle is still a subject of ongoing research and debate, and its relationship with ESG is ambiguous.

In recent years, corporations have increasingly incorporated environmental, social, and governance (ESG) factors into their decision-making processes, which is impacting all stakeholders, including shareholders (Huber et al., 2017). Today, shareholders have realised that focusing on financial aspects alone is insufficient as non-financial disclosures such as the company's ESG scores have become equally important in judging the company from a long-term return perspective. Researchers have explained the ESG-DP relationship using several theories. For example, relevance theory argues that companies with a positive ESG score will likely create long-term value for shareholders, resulting in larger dividend payouts. Contrary to this, irrelevancy theory says the company's value has no relationship with the dividends policy, it comes from other factors such as investments and the cost of capital. Similarly, agency theory believes in problems caused by the misalignment of top management thoughts and shareholders' expectations. The agency costs may occur due to management's misuse of sustainable actions for personal benefits such as publicity, promotions, and free distributions. Hence, there can be a chance of reduced profits, which can negatively affect the company's dividend decision. However, stakeholder theory states that the sustainable performance of the company disclosed in the public domain can reduce the information asymmetry, reduce the risks, improve reputation, enhance revenue, and thereby improve profitability and DP.

Multiple theories on the relationship between ESG-DP have their proponents and detractors, and the debate over the relevance or irrelevance of DP among investors, corporate managers, and financial analysts continues. The literature demonstrates that there is no consensus on this relationship, and this relationship varies across countries and industries. Hence, to fill this research gap, a current study was taken up to explore the relationship of ESG-DP in an emerging market

context with a focus on ESG overall score impact, ESG individual component-wise impact, and industry-wide analysis.

## 2.2 ESG disclosures and dividend policy

Prior research indicates a positive relationship between ESG-DP, with few studies showing a negative relationship in different regions and industries. For example, companies with greater ESG scores tend to have strong reputations and better stakeholder relationships, thereby improving revenue and profitability (Cheung et al., 2018). Similarly, ESG investments of companies were found to be influencing positively dividends (Ahmed, 2015; Shiekh,2020). Samet and Jarboui (2017) found a positive relationship in the case of European companies. Further, Dahiya et al., 2023 found that the CSR performance of Indian companies has a positive relationship with DP, supporting the stakeholder theory. However, Niccolò's (2020) study conducted on Chinese companies using OLS regression found that ESG investments of the companies lead to a decrease in dividend payout. Similarly, companies with weak corporate governance in Vietnam have paid more dividends to keep shareholders intact with the company (Nguyen et al, 2021). Therefore, based on these mixed arguments, we propose as follows:

*H1: ESG disclosures are positively correlated with DP.*

*H2: The relationship between ESG disclosures and DP varies across industries.*

## 2.3 Environmental Performance and DP

The company's environmental performance is measured through various parameters such as net zero emissions, $CO_2$ emissions, waste management, and use of natural resources (NSE, 2020). According to Margolis et al. (2009) and Dahiya et al. (2023), ESG was considered to be a three-dimensional concept, and the effects of individual components like E, S, and G can vary in terms of their relationship with DP. For example, European banking sector studies have proven the positive relationship between environmental performance and DP (Benlemlih, 2019; Wamba, 2022). Due to mandatory disclosures and compliance forces from the government, many companies publicly disclose their environmental performance. Today, shareholders are increasingly using this publicly available information to judge the company from a non-financial performance point of view. Stakeholder theory emphasises that companies engaged in environmental facets tend to satisfy the company's various stakeholders, including shareholders, through high dividend payments. For example, studies by Mukherjee and Nunez (2019), Kraus et al. (2020), and Zadeh

(2020) have found a positive relationship between environmental performance, such as clean air, better waste management, and have translated into better revenue and high DP. However, Renneboog and Szilagyi (2015) found that investments in environmental performance have increased the company's cost and thereby reduced the profit level and DP. A literature review study by Mohapatra and Panda (2022) found that the relationship between environmental performance and DP varies across regions and geographies due to cultural differences and disparity in regulations and implementation. Based on these arguments, we hypothesise that

*H3: Environmental performance is positively correlated with the dividend policy.*

## 2.4 Social Performance and DP

The social concept in ESG comprises labor relations, health and safety, diversity and inclusion, and human rights (NSE, 2020). Today, many companies follow the triple bottom line concept, giving equal weight to the planet, people, and profits. Particularly, the people aspect in the triple bottom line addresses the social aspects such as health, well-being, and safety, which are considered of utmost importance now in the new normal era. Studies conducted by Bajic and Yurtoglu (2018) and Zadeh (2020) have found that companies investing in social performance have improved their reputation, increasing profits and DP. However, Cheung et al. (2018) study found that companies investing in social performance have reduced the cost of equity, and hence, they tend to retain cash more and pay less dividends to shareholders. Based on these arguments and following the stakeholder theory views, we propose that.

*H4: Social performance is positively correlated with the dividend policy.*

## 2.5 Governance Performance and DP

Governance performance comprises business ethics, compliance, board efficiency, and shareholder democracy (NSE, 2020). A good corporate governance regime followed by companies is assumed to improve firm performance in the case of DP (Ntim, 2016). Similarly, Kacperczyk's (2009) study on US companies from 1991 to 2002 found that better governance performance in US companies has led to a higher value. Further, a study by Hameed et al. (2021) conducted in Pakistan found a positive relationship between governance performance and DP. Contrary to this, companies with poor governance mechanisms may try to maximise their wealth (board of directors'

wealth) rather than maximise the shareholder's wealth (Al-Taleb, 2012; La Porta et al., 2000). Supporting the trade-off theory, Khamidullina and Makarova's (2021) study conducted on BRICS countries found that investing in governance performance, such as appointing more independent directors and improving board gender diversity, has increased the cost of the company and hence there is a negative effect on DP. Based on these arguments, we believe that in the case of India,

*H5: Governance performance is positively correlated with the dividend policy.*

## 3. Research methodology

### 3.1 Data and sample description

We collected panel data from 304 companies from the NSE-500 index to answer the study's research questions. NSE-500 is one of India's broad-based indices in the stock market, with 96.1% free float market capitalisation and 97% total turnover. Companies' financial data and ESG scores were obtained from Prowess and Bloomberg, respectively. The study uses a sample of a total of 1520 firm observations from the year 2015 to 2020. We have observed that most listed companies have fluctuations in their dividend and financial data during 2021 and 2022. Hence, we have not considered the COVID-19 crisis period time in India to keep the data stable and make it viable for analysis and interpretation. The chosen period is highly suitable for examining the association between ESG-DP as most of the sustainability reforms were adopted in India in 2014, and firms' disclosure data became increasingly available post-2014. The present study follows the methodology and research design recommendations of Dahiya et al, (2023) for undertaking a dynamic panel regression technique. In the initial phase of data collection, data from 500 companies was collected, and then exclusion was made based on the unavailability of data. Finally, data from 305 firms over five years with 1520 firm observations were considered for the study.

### 3.2 Variables description

### 3.2.1 Dependent variable: Dividend payout ratio

Our dependent variable in the model, i.e., company dividend policy, was represented by the dividend payout ratio (DP). Corporate finance literature shows evidence that dividend decisions can have a substantial effect on investment returns and investors evaluate a company based on financial health, dividend declaration pattern, and prospects (Cheung et al. 2018; De Villiers et al. 2020; Saeed and Zamir, 2021). However, the last decade has shown that investors are

widely using non-financial parameters such as ESG disclosures to evaluate the companies along with financial parameters. Today's investors believe that only companies that focus on sustainability aspects will create long-term financial wealth in terms of dividends and capital appreciation. Therefore, the ESG-DP relation is of utmost importance in corporate finance literature now.

### 3.2.2 Independent variables: ESG

Bloomberg provides ESG overall and independent scores (E-S-G) on a scale of 0.1 to 100 (Huber et al. 2017). The scores are calculated using a robust and broad-based framework, including publicly available data such as business responsibility and suitability reports, annual reports, company websites, and research reports.

### 3.2.3 Control variables

The study uses control variables such as firm size, firm age, leverage, and profitability to make results more robust and less spurious (Drempetic et al. 2020; Dahiya et al. 2023). Firm size can affect the ESG-DP relationship as large-size companies tend to give more preference to ESG, and they can have more resources to consider dividend payout. However, as indicated in dividend relevance and irrelevance theories, large firms may or may not prefer dividend declaration, and their decision can be highly dynamic. Similarly, firm age can play a crucial role in the ESG-DP relationship as older companies may have more resources, and by declaring dividends, they may want to garner more positivity in the eyes of shareholders. However, drawing from the conclusions of relevance and irrelevance theory, large and small companies can behave differently in the case of dividend declarations. Likewise, leverage can impact the ESG-DP relationship as firms with high debt may prefer to postpone the dividend declaration; contrary to this, low-debt firms may prefer to give high dividends due to cost advantage (Saeed and Zamir, 2021). However, low-debt and high-debt firms may declare dividends differently based on many internal and external factors. The explanation and operationalisation of all these variables are explained in Table 1.

**Table I:** Variables and their measurement

| Notation | Description | Measurement | Source |
|---|---|---|---|
| **Dependent variable** | | | |
| DP | Dividend payout ratio | Total dividends paid/Net income | Ellili (2022) |
| **Independent variables** | | | |
| ESG | Environmental, social, and governance disclosures score | Parameters used by Bloomberg | Chen and Yang (2020) |
| E | Environmental disclosures score | Parameters used by Bloomberg | Chen and Yang (2020) |
| S | Social Performance disclosure score | Parameters used by Bloomberg | Chen and Yang (2020) |
| G | Governance performance disclosure scores | Parameters used by Bloomberg | Chen and Yang (2020) |
| **Control variables** | | | |
| Size | Firm size | Natural log of firm's asset value | Shahab et al. (2020) |
| Age | Firm age | Firm's age from inception | Shahab et al. (2020) |
| Lev | Leverage | Total debt/shareholder's equity | Barnett and Solomon (2012) |
| ROA | Return on Assets | Net income / Average total assets | Shahab et al. (2020) |

## 3.3 Model description

The system generalized method of moments (GMMs) in a dynamic panel regression setting is applied to test the hypothesis. To mitigate issues related to endogeneity, measurement error, omitted variable bias, and firm-specific heterogeneity, this work uses the system GMM model. The dividend policy variable's unobserved heterogeneity and potential endogeneity bias are taken into consideration by the system-GMM because there may be a chance of potential reverse causation between ESG performance and the independent variables. The estimable equation to achieve our objectives and test our hypotheses may be written as follows:

$$DP_{it} = \lambda_0 + \lambda_1 DP_{i,t-1} + \lambda_2 ESG_{i,t-1} + \lambda_3 Size_{it} + \lambda_4 Lev_{it} + \lambda_5 ROA_{it} + \lambda_6 Age_{it} + \mu_{it} + e_{it} \qquad (1)$$

$$DP_{it} = \lambda_0 + \lambda_1 DP_{i,t-1} + \lambda_2 E_{i,t-1} + \lambda_3 Size_{it} + \lambda_4 Lev_{it} + \lambda_5 ROA_{it} + \lambda_6 Age_{it} + \mu_{it} + e_{it} \qquad (2)$$

$$DP_{it} = \lambda_0 + \lambda_1 DP_{i,t-1} + \lambda_2 S_{i,t-1} + \lambda_3 Size_{it} + \lambda_4 Lev_{it} + \lambda_5 ROA_{it} + \lambda_6 Age_{it} + \mu_{it} + e_{it} \qquad (3)$$

$$DP_{it} = \lambda_0 + \lambda_1 DP_{i,t-1} + \lambda_2 G_{i,t-1} + \lambda_3 Size_{it} + \lambda_4 Lev_{it} + \lambda_5 ROA_{it} + \lambda_6 Age_{it} + \mu_{it} + e_{it} \qquad (4)$$

where DP is the dividend payout ratio, ESG is the environmental, social, and governance disclosure score, E is the environmental disclosure score, S is the social disclosure score, G is the governance disclosure score, Size is the log of total assets, Lev is leverage measured by debt-equity ratio, $\mu_{it}$ = unobserved effect of firm i in year t; $e_{it}$ = error term. To assess the continuity of dividends, the previous value of the dependent variable has been incorporated as an independent variable in the analysis. This approach has been adopted by Adjaoud and Ben-Amar (2010) and Dewasiri et al. (2019) in their studies. Including lagged dividends is significant because historical dividends are widely recognized as influential factors in shaping a company's dividend policy, as established by Lintner (1956) and Baker et al. (1985).

A possible endogeneity issue that might result in biased and inconsistent parameter estimations is caused by the possibility that past dividend payout may influence present dividend payout and ESG score (Roberts & Whited, 2013). We use the instrumental variables technique and the dynamic GMM estimator to analyze how DP interacts with ESG performance while mitigating endogeneity bias. GMM is more relevant than other methods because DP and ESG

performance values today depend on past firm performance. We utilize the two-step "system GMM" described by Wintoki et al. (2012), which uses first-differenced variables as instruments for the equations in levels. These calculations can withstand hidden heterogeneity, causality issues, and dynamic endogeneity. System GMM estimations are considered more precise than difference GMM estimations. This is due to an additional assumption made in system GMM that the initial difference of the instruments is not correlated with the fixed effects. This assumption enables using a larger set of instruments in the estimation process (Roodman, 2006).

Two tests were conducted to verify the accuracy of the GMM's estimation, such as AR (1) and AR (2): the first and secondary autocorrelation examinations are utilized to assess if there is no second-order serial correlation among the residuals obtained from taking the first difference (Arellano and Bond, 1991). The instruments are assumed valid when testing the over-identified constraints under the Hansen J test null hypothesis (Hansen, 1982). The p-values of both these tests are provided for all estimations, and to accept the null hypothesis, they need to exceed 0.05.

## 4. Analysis and discussion

### 4.1 Descriptive Statistics and Correlation

The descriptive statistics for the main research variables are shown in Table 2. DP has a mean of 34.48. Also, the descriptive study of independent variables found that the average ESG score was 36.51, with the variance being 10.50 and the highest value being 76.35. The average value of environmental disclosure is 13.19, with a variation of 17.42. Regarding control variables, the average level of debt held by the firms is 0.95, while their average size, calculated as the natural log of total assets, is 11.63.

**Table II:** Descriptive Statistics

| Variables | Mean | Max | Min | SD |
|-----------|------|------|-------|--------|
| DP | 34.48 | 471.93 | 0 | 289.52 |
| ESG | 36.51 | 76.35 | 14.12 | 10.50 |
| E | 13.19 | 76.08 | 0.00 | 17.42 |
| S | 19.61 | 69.26 | 0.00 | 11.64 |
| G | 76.66 | 98.62 | 27.15 | 8.61 |

| | | | | |
|------|-------|-------|--------|------|
| ROA | 6.49 | 76.77 | -75.90 | 8.28 |
| Size | 11.63 | 17.55 | 6.68 | 1.79 |
| Leverage | 0.95 | 55.76 | 1.95 | 2.14 |

Table 3 presents the correlation coefficients among the variables used in the analysis, suggesting no problems with multicollinearity among the independent variables. The variance inflation factor is found to be less than 5 (Nguyen et al., 2020), stating that there is no multicollinearity problem.

**Table III:** Correlation

| Variables | (DP) | (ESG) | (E) | (G) | (S) | (Leverage) | (Size) | (ROA) |
|-----------|------|-------|-----|-----|-----|-----------|--------|-------|
| DP | 1.000 | | | | | | | |
| ESG | 0.000 | 1.000 | | | | | | |
| E | 0.001 | 0.924*** | 1.000 | | | | | |
| G | -0.029 | 0.624*** | 0.402*** | 1.000 | | | | |
| S | 0.020 | 0.854*** | 0.704*** | 0.346*** | 1.000 | | | |
| Leverage | -0.014 | -0.052** | -0.078*** | -0.031 | -0.005 | 1.000 | | |
| Size | 0.013 | 0.318*** | 0.319*** | -0.019 | 0.388*** | 0.253*** | 1.000 | |
| ROA | -0.003 | 0.049** | 0.048** | 0.068*** | 0.015 | -0.241*** | -0.320*** | 1.000 |
| VIF | | 1.16 | 1.17 | 1.00 | 1.22 | 1.12 | 1.34 | 1.17 |

*\*\*\* p<0.01, \*\* p<0.05, \* p<0.1*

## 4.2 ESG Disclosures and DP

Table 4 reports the findings of estimating equations 1 to 4. We estimate Model (1) to analyze the overall ESG disclosure and Models (2), (3), and (4) to investigate the separate effects of environmental (E), social (S), and governance (G) disclosure on dividend policy. Furthermore, our findings reveal a positive and statistically significant coefficient for the lagged dividend. This implies that dividends exhibit a persistent pattern and that past dividends positively influence present-year dividends. According to the residual autocorrelation test, the second-order autocorrelation coefficient is insignificant, so there is no second-order autocorrelation concern for system-GMM. The validity of the instruments is the null hypothesis for the Hansen test, which states no correlation between the instruments and residuals. We confirm the validity of the instruments using Hansen's J-statistic for over-identifying restrictions.

The outcomes of Model 1 confirm Hypothesis 1 and demonstrate a positive association between ESG performance and the dividend payout ratio. This is consistent with Brockman and Unlu (2011) Cheung et al. (2018), Benlemlih (2019), Ellili (2022), and Dahiya et al. (2023), who suggested that increased transparency in disclosure has the potential to influence dividend payouts positively. This is attributed to the fact that transparent disclosure provides shareholders with precise information regarding the cash flows generated by the company, thus leading to higher dividend distributions. As per the MSCI report, companies with strong ESG ratings have a competitive advantage and can generate abnormal returns, resulting in increased profitability and dividend payments. Companies with higher ESG performance are perceived as having a stronger dedication to societal responsibilities, leading to an improved corporate image and reputation in capital markets (Benlemlih, 2019). These companies are recognized as socially responsible, contributing to better financial performance and increased dividend payouts (Ellili, 2022).

Model 2 validates H3, which shows a positive and significant relationship between environmental performance and dividend payout ratio. Firms' commitment to long-term value creation and ethical business practices is demonstrated when they actively report their environmental performance and sustainability initiatives (Ramezani et al. 2022). This can, therefore, result in more investor confidence, a better reputation, and a rise in the company's market worth. Consequently, increased dividend payments to shareholders are frequently a result of a higher market value. Our findings are consistent with Dahiya et al. (2023), Ellili (2022), and Erdogan et al. (2023).

Model 3 validates H4, which shows the positive and significant association between social performance and dividend payout, which is consistent with the findings of Dahiya et al. (2023), Ellili (2022), and Bae et al. (2021). Strong social performance indicates the firm's high commitment towards society, which improves the corporate image and leads to increased financial performance as well as dividend payment.

Model 4 does not validate the H5 as the finding suggests that corporate governance has no significant relationship with the dividend payout ratio. Governance performance alone may not influence DP in the case of Indian listed companies mainly for three reasons. First, when companies invest in governance reforms, they may think they have already created a positive signal, and there is no need to bring further positivity through DP. Second, the return on alternative use of funds through investing in new projects, reducing the debt and new mergers and acquisition opportunities is higher than dividend declaration. Third,

companies must assess dividend decisions based on new dividend tax laws, shareholder preferences, and the firm's long-term objectives. Our findings are in line with the studies conducted by La Porta et al. (2000), Mitton (2004), and Kanojia and Bhatta (2021).

Regarding control variables, firm age and profitability (ROA) are found to have positive and significant dividend payout ratios. Firm size and leverage were negatively associated with the dividend payout ratio, consistent with the findings of Ni and Zhang (2019) and Dahiya et al. (2023).

**Table IV:** ESG, E, S, G and Dividend payout ratio (DP) GMM results

|  | Model 1 ESG | Model 2 Environmental | Model 3 Social | Model 4 Governance |
|---|---|---|---|---|
| $DP_{t-1}$ | 0.004*** | 0.351*** | 0.004*** | 0.004** |
|  | (4.90) | (1.52) | (4.56) | (3.24) |
| $ESG_{t-1}$ | 0.546** |  |  |  |
|  | (3.13) |  |  |  |
| $E_{t-1}$ |  | 0.189* |  |  |
|  |  | (2.43) |  |  |
| $S_{t-1}$ |  |  | 0.683*** |  |
|  |  |  | (3.53) |  |
| $G_{t-1}$ |  |  |  | 0.194 |
|  |  |  |  | (0.52) |
| Size | -0.501 | -0.049 | -1.143 | -2.086 |
|  | (-0.38) | (-0.03) | (-0.71) | (-1.49) |
| Lev | -0.620 | -2.758 | -1.250 | -0.218 |
|  | (-0.68) | (-1.66) | (-1.33) | (-0.19) |
| Age | 0.040* | 0.158* | 0.219* | 0.0401* |
|  | (0.35) | (1.86) | (2.37) | (0.55) |
| ROA | 1.168*** | 1.687*** | 1.109*** | 1.338*** |
|  | (4.04) | (7.03) | (3.80) | (4.60) |
| Constant | -0.186 | -9.387 | 4.724 | -2.600 |
|  | (-0.01) | (-0.57) | (0.26) | (-1.17) |
| *Observations* | 1520 | 1520 | 1520 | 1520 |
| Industry and Year FE | Yes | Yes | Yes | Yes |
| *AR(2)* | 0.436 | 0.241 | 0.300 | 0.357 |
| *Hansen J* | 0.072 | 0.648 | 0.089 | 0.324 |

**Note(s):** Statistical significance at 1%***, 5%**, and 10%* respectively.  t statistics in parentheses

## 4.3 ESG disclosures and DP across the industries

Even though country-wise studies report more generalizable findings, industry-specific studies will make the findings significant for the betterment of industry-specific issues (Karaman et al., 2020). Therefore, our study explores the ESG-DP relationship in industry-wide analysis. The objective of performing industry analysis is to understand if the relationship between ESG and dividend payout varies with the four sectors selected by considering a mix of service (health care and financial services) and manufacturing industries (capital goods and FMCG). From the sample industries, based on the highest industry-wise sample data, we have chosen capital goods, FMCG, financial services, and healthcare as our industries for analysis. The findings are presented in Table 5, which shows the application of system-GMM to these sectors. The autocorrelation test and Hansen J-statistic are performed for each sector to address the autocorrelation problem and for the validity of instruments, respectively.

We found that ESG is positively and significantly associated with the dividend payout ratio for the capital goods and healthcare sector, suggesting that increased transparency in ESG disclosure has the potential to positively influence dividend payouts in the capital goods and healthcare sector. These results are consistent with the overall results presented in Table 4. We attribute the positive relationship of ESG-DP in the capital goods industry to the following reasons. First, the capital goods industry is involved in manufacturing and considered to be highly detrimental to the environment and hence they invest more in ESG which benefits them financially through cost savings such as savings from fines and penalties, improved reputation, increase in profitability, and DP. Second, this industry is subjected to a high regulatory and compliance regime which forces them to invest more in ESG which saves them from lawsuits, and grievance redressal. Third, boards in these industries must encourage the company to invest more in ESG as today's investor is equally concerned with non-financial performance such as ESG hence they can attract more investors which will ultimately increase share price due to high demand and will lead to higher DP. Similarly, the health care industry ESG-DP positive relationship can be attributed to the following reasons. First, this industry is highly focused on social impact by focusing on the well-being of patients, employees, and society, which can bring them a better reputation, enhanced revenue, and DP. Second, this industry is highly subjected to regulation and compliance which can lead to better efficiencies and improved profitability. Finally, this industry thrives on innovation and they invest heavily in R&D, which can help them to invest in sustainable and cost-efficient processes which can lead to a positive impact on profitability and DP.

In the case of financial services and the FMCG sector, we found no significant relationship between ESG-DP. H2 is validated for capital goods and the healthcare sector. We attribute the no significant relationship in financial services for the following reasons. First, this industry adopts a different business model compared to others as they do not have any product sales and earn revenue through interest on loans, fees, and earns through commissions, and investments. Hence, ESG performance may not be influencing their revenue or profitability. Second, out of E-S-G parameters, these industries focus more on S and G parameters due to their nature of business and hence overall ESG effect may not be significant with DP. Third, investors in this industry must be focusing more on earning capacity and risk mitigation and hence, ESG alone is not playing any significant role in profitability. Similarly, in the case of FMCG, we attribute the no significant relationship for the following reasons. First, this industry adopts a unique business model by focusing more on competitiveness and consumers' ever-changing demands. This compels the company to focus more on product development, innovation, and marketing strategies to improve revenue rather than ESG aspects. Second, though sustainability consciousness is picking up in this industry still many of them are giving priority to increasing their brand value, high market share, and customer loyalty. Third, investors in this industry must prioritize more on high revenue, increasing the trend of profits and future prospects of sales rather than ESG aspects.

**Table V:** ESG and Dividend payout ratio (DP) industrial analysis results

|  | Model 1 Capital goods | Model 2 Financial services | Model 3 FMCG | Model 4 Health Care |
|---|---|---|---|---|
| $DP_{t-1}$ | $0.634^{***}$ | $0.018^{***}$ | $0.004^{***}$ | $1.052^{**}$ |
|  | (4.90) | (1.62) | (0.05) | (9.61) |
| $ESG_{t-1}$ | $0.492^{**}$ | 0.069 | 0.677 | $0.146^{**}$ |
|  | (2.35) | (0.08) | (0.56) | (0.57) |
| Size | 0.873 | 2.794 | -2.150 | 0.624 |
|  | (0.55) | (0.57) | (-0.21) | (0.39) |
| Lev | -0.911 | -0.016 | -3.165 | -6.274 |
|  | (-0.70) | (-0.01) | (-0.47) | (-1.02) |
| Age | 0.037 | 0.040 | 0.017 | 0.110 |
|  | (0.48) | (0.10) | (0.15) | (1.00) |
| ROA | $0.515^{***}$ | $5.146^{***}$ | $2.080^{***}$ | $0.236^{***}$ |
|  | (0.345) | (3.48) | (2.37) | (0.46) |
| Constant | -28.844 | -8.270 | 12.847 | -25.758 |
|  | (-1.11) | (-0.16) | (0.16) | (-1.10) |

| *Observations* | 180 | 294 | 144 | 174 |
|---|---|---|---|---|
| *AR(2)* | 0.464 | 0.928 | 0.750 | 0.850 |
| *Hansen J* | 0.564 | 0.391 | 0.326 | 0.169 |

**Note(s):** Statistical significance at 1%***, 5%**, and 10%* respectively.
*t* statistics in parentheses

## 5. Implications

Our pioneering study advances the existing literature on ESG-DP in the direction of ESG aggregate effect, disaggregate effect, and industry-wide study. By synthesizing the relevance, irrelevance, trade-off, agency, and signaling theory we show the empirical evidence that the ESG-DP relationship is positive in the aggregate, which is supporting the relevance theory, agency theory, and signaling theory. In the case of environmental and social performance with the DP relationship, we demonstrate a significant positive relationship, which is supporting the stakeholder theory.

Our study has also delivered several noteworthy practical implications. Firstly, ESG-DP, E-DP, and S-DP positive relationship encourage, regulators, policymakers, and corporate managers to invest in ESG parameters and this compels the regulators to mandate the disclosures further in the case of other listed companies. Second, a nonsignificant relationship between governance performance with DP indicates that companies that have invested in good governance practices have already committed their resources and leveraged them through enhanced reputation, and hence their dividend decision may be independent of governance performance. Companies must be using more resources to comply with these parameters and hence regulators, government and policymakers should provide awareness on how to mitigate the high cost of implementing these reforms. Third, in light of recent reforms introduced in India in 2020 such as the National Action Plan for Skill Development of Minorities, income equality initiatives like Pradhan Mantri Garib Kalyan Yojana, Occupational safety, health and working conditions, Industrial relations and social code implementation have forced many listed companies to comply with these reforms and hence in the short run there is a chance of reduced profit but overall, a positive effect on DP indicates that sustainability investments are beneficial to shareholders. Similarly, recent reforms taken in case of governance aspects such as mandate on disclosure of board gender diversity, top 1000 listed companies must have at least one independent women director and at least 50% of the board should have non-executive directors are forcing companies to invest their resources to comply with these reforms and hence in the short run there is a

reduction in profits which may be compelling the companies to postpone the dividends payments. Fourth, this no significant relationship compels corporate managers to look at the dividend decision as independent of governance performance. Overall, the positive result encourages regulators to aggressively impose mandatory disclosures from a long-term perspective so that companies will be able to comply with the rules.

## 6. Conclusion

Investors are increasingly considering ESG factors when making investment decisions, including when assessing the dividend potential of companies. To answer the research question, of whether high ESG scores are associated with high dividends or vice versa the study was taken up in the case of India. We found that ESG overall score has a positive association with DP. We found this positive effect may be contributed by enhanced reputation, increased revenue, and profitability, whereas we found no significance in the case of governance performance with DP. We attribute this no significant association mainly due to positivity created by enhanced governance performance and companies may prefer to keep their DP independent of governance performance. Contrary to this, we found a significant positive relationship of environmental and social performance with DP. The results obtained and the implications for regulators, government, policymakers, and corporate managers come with a crucial disclaimer; to reap the financial benefits of investing in sustainability aspects different firms will have to wait for varied time zones as this aspect can vary from country wise and industry-wise. We have covered only from India's perspective; hence results cannot be generalized. However, as most of the emerging nations are having similar challenges, future researchers should focus on multi-country data sets and can also consider the qualitative aspects like opinions of the policymakers and corporate managers and can design mixed method research.

## References

Abdel-Wanis, E. (2020), "Corporate Social Responsibility, Corporate Life Cycle, and Dividend Policy", Journal of Accounting, Business and Management (JABM), Vol. 27 No. 2, pp. 101-115. https://doi.org/10.31966/jabminternational.v27i2.703

Adaoglu, C. (2000), "Instability in the dividend policy of the Istanbul stock exchange (ISE) corporations: evidence from an emerging market", Emerging

Markets Review, Vol. 1 No. 3, pp. 252-270.
https://doi.org/10.1016/S1566-0141(00)00011-X

Adjaoud, F. and Ben-Amar, W., (2010). Corporate governance and dividend policy: Shareholders' protection or expropriation?. Journal of Business Finance & Accounting, 37(5/6), pp.648-667.
https://doi.org/10.1111/j.1468-5957.2010.02192.x

Ahmed, I. E. (2015), "Liquidity, profitability and the dividends payout policy", World Review of Business Research, Vol. 5 No. 2, pp. 73-85.

Al-Shammari, M. A., Banerjee, S. N., and Rasheed, A. A. (2022), "Corporate social responsibility and firm performance: A theory of dual responsibility", Management Decision, Vol. 60 No. 6, pp. 1513-1540.
https://doi.org/10.1108/MD-12-2020-1584

Al-Taleb, G. (2012), "Measurement of impact agency costs level of firms on dividend and leverage policy: An empirical study", Interdisciplinary journal of contemporary research in business, Vol.3 No.10, pp. 234-243.

Arellano, M., and Bond, S. (1991), "Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations", The Review of Economic Studies, Vol. 58 No. 2, pp. 277-297.
https://doi.org/10.2307/2297968

Bae, K. H., El Ghoul, S., Guedhami, O., and Zheng, X. (2021), "Board reforms and dividend policy: International evidence", Journal of Financial and Quantitative Analysis, Vol. 56 No. 4, pp. 1296-1320.
https://doi.org/10.1017/S0022109020000319

Bajic, S. and Yurtoglu, B. (2018), "Which aspects of CSR predict firm market value?", Journal of Capital Markets Studies, Vol. 2 No. 1, pp. 50-69.
https://doi.org/10.1108/JCMS-10-2017-0002

Baker, H. K., Farrelly, G. E., and Edelman, R. B. (1985), "A survey of management views on dividend policy", Financial Management, pp. 78-84.
https://doi.org/10.2307/3665062

Benlemlih, M. (2019), "Corporate social responsibility and dividend policy", Research in International Business and Finance, Vol. 47, pp. 114-138. https://doi.org/10.1016/j.ribaf.2018.07.005

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

Broadstock, D. C., Matousek, R., Meyer, M., and Tzeremes, N. G. (2020), "Does corporate social responsibility impact firms' innovation capacity? The indirect link between environmental and social governance implementation and innovation performance", Journal of Business Research, Vol. 119, pp. 99-110. https://doi.org/10.1016/j.jbusres.2019.07.014

Brockman, P., and Unlu, E. (2011), "Earned/contributed capital, dividend policy, and disclosure quality: An international study", Journal of Banking & Finance, Vol. 35 No. 7, pp. 1610-1625. https://doi.org/10.1016/j.jbankfin.2010.11.014

Buallay, A. (2019), "Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector", Management of Environmental Quality: An International Journal, Vol. 30 No. 1, pp. 98-115. https://doi.org/10.1108/MEQ-12-2017-0149

Cheng, B., Ioannou, I., and Serafeim, G. (2014), "Corporate social responsibility and access to finance", Strategic Management Journal, Vol.35 No.1, pp. 1-23. https://doi.org/10.1002/smj.2131

Cheung, A., Hu, M., and Schwiebert, J. (2018), "Corporate social responsibility and dividend policy", Accounting & Finance, Vol. 58 No. 3, pp. 787-816. https://doi.org/10.1111/acfi.12238

Cheung, A., Hu, M., and Schwiebert, J. (2018), "Corporate social responsibility and dividend policy", Accounting and Finance, Vol.58 No.3, pp.

787-816.
https://doi.org/10.1111/acfi.12238

Cui, J., Jo, H., and Na, H. (2018), "Does corporate social responsibility affect information asymmetry?", Journal of Business Ethics, Vol.148 No.3, pp.549-572.
https://doi.org/10.1007/s10551-015-3003-8

Dahiya, M., Singh, S., and Chaudhry, N. (2023), "Corporate social responsibility and dividend policy in India", Management Decision.
https://doi.org/10.2139/ssrn.4416815

Das Mohapatra, D., and Panda, P. (2022), "Impact of corporate governance on dividend policy: A systematic literature review of the last two decades", Cogent Business & Management, Vol.9 No.1, 2114308.
https://doi.org/10.1080/23311975.2022.2114308

Das, M., and Rangarajan, K. (2020), "Impact of policy initiatives and collaborative synergy on sustainability and business growth of Indian SMEs", Indian Growth and Development Review.
https://doi.org/10.1108/IGDR-09-2019-0095

Dewasiri, N. J., Yatiwelle Koralalage, W. B., Abdul Azeez, A., Jayarathne, P. G. S. A., Kuruppuarachchi, D., and Weerasinghe, V. A. (2019), "Determinants of dividend policy: evidence from an emerging and developing market", Managerial Finance, Vol. 45 No. 3, pp. 413-429.
https://doi.org/10.1108/MF-09-2017-0331

Drempetic, S., Klein, C., and Zwergel, B. (2020), "The influence of firm size on the ESG score: Corporate sustainability ratings under review" Journal of Business Ethics, Vol.167, pp. 333-360.
https://doi.org/10.1007/s10551-019-04164-1

El Ghoul, S., Guedhami, O., Kwok, C. C., and Mishra, D. R. (2011), "Does corporate social responsibility affect the cost of capital?", Journal of Banking & Finance, Vol.35 No.9, pp.2388-2406.
https://doi.org/10.1016/j.jbankfin.2011.02.007

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, Vol. 29 No. 5, pp. 1396-1413. https://doi.org/10.1002/csr.2277

Garcia, A. S., Mendes-Da-Silva, W., and Orsato, R. J. (2017), "Sensitive industries produce better ESG performance: Evidence from emerging markets", Journal of Cleaner Production, Vol. 150, pp. 135-147. https://doi.org/10.1016/j.jclepro.2017.02.180

Hameed, A., Xie, J., and Zhong, Y. (2021), Preference for dividends and stock returns around the world. https://doi.org/10.2139/ssrn.4263210

Hansen, L. P. (1982), "Large sample properties of generalized method of moments estimators", Econometrica: Journal of the Econometric Society, pp. 1029-1054. https://doi.org/10.2307/1912775

Hendijani Zadeh, M. (2021), "The effect of corporate social responsibility transparency on corporate payout policies", International Journal of Managerial Finance, Vol.17 No.5, pp.708-732. https://doi.org/10.1108/IJMF-07-2020-0386

Huber, P., Pavlíková, E. A., and Basovníková, M. (2017), "The impact of CSR certification on firm profitability, wages and sales (No. 535)". WIFO Working Papers.

Kacperczyk, A. (2009), "With greater power comes greater responsibility? Takeover protection and corporate attention to stakeholders", Strategic Management Journal, Vol.30 No.3, pp.261-285. https://doi.org/10.1002/smj.733

Kanojia, S., and Bhatia, B. S. (2022), "Corporate governance and dividend policy of the US and Indian companies", Journal of Management and Governance, Vol. 26 No. 4, pp. 1339-1373. https://doi.org/10.1007/s10997-021-09587-5

Karaman, A. S., Kilic, M., & Uyar, A. (2020), "Green logistics performance and sustainability reporting practices of the logistics sector: The moderating effect of corporate governance", Journal of Cleaner Production, Vol.258, pp.120718.
https://doi.org/10.1016/j.jclepro.2020.120718

Khamidullina, M., and Makarova, S. (2021), "The effect of the quality of corporate governance on the dividend policy of companies in the BRICS countries", BRICS Journal of Economics, Vol.2 No.2, pp.84-106.
https://doi.org/10.38050/10.38050/2712-7508-2021-2-5

Kim, J., and Jeon, Y. (2015), "Dividend policy and corporate social responsibility: a comparative analysis of multinational enterprise subsidiaries and domestic firms in Korea", Emerging Markets Finance and Trade, Vol.51 No.2, pp.306-319.
https://doi.org/10.1080/1540496X.2015.1021605

Kraus, S., Rehman, S. U., and García, F. J. S. (2020), "Corporate social responsibility and environmental performance: The mediating role of environmental strategy and green innovation", Technological Forecasting and Social Change, Vol.160, 120262.
https://doi.org/10.1016/j.techfore.2020.120262

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R. (2000), "Investor protection and corporate governance", Journal of Financial Economics, Vol.58 No.1-2, pp. 3-27.
https://doi.org/10.1016/S0304-405X(00)00065-9

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R. W. (2000), "Agency problems and dividend policies around the world", The Journal of Finance, Vol. 55 No. 1, pp. 1-33.
https://doi.org/10.1111/0022-1082.00199

Li, K., and Zhao, X. (2008), "Asymmetric information and dividend policy", Financial Management, Vol. 37 No. 4, pp. 673-694.
https://doi.org/10.1111/j.1755-053X.2008.00030.x

Lintner, J. (1956), "Distribution of incomes of corporations among dividends, retained earnings, and taxes", The American Economic Review, Vol. 46 No. 2, pp. 97-113.

Manita, R., Bruna, M. G., Dang, R., and Houanti, L. H. (2018), "Board gender diversity and ESG disclosure: evidence from the USA", Journal of Applied Accounting Research.
https://doi.org/10.1108/JAAR-01-2017-0024

Margolis, J. D., Elfenbein, H. A., and Walsh, J. P. (2009), "Does it pay to be good... and does it matter? A meta-analysis of the relationship between corporate social and financial performance".
https://doi.org/10.2139/ssrn.1866371

Miller, M. H., and Modigliani, F. (1961), "Dividend policy, growth, and the valuation of shares", The Journal of Business, Vol. 34 No. 4, pp. 411-433.
https://doi.org/10.1086/294442

Mitton, T. (2004), "Corporate governance and dividend policy in emerging markets", Emerging Markets Review, Vol. 5 No. 4, pp. 409-426.
https://doi.org/10.1016/j.ememar.2004.05.003

MSCI (n.d.). "Has ESG affected stock performance?" [Blog post]. Retrieved from https://www.msci.com/www/blog-posts/has-esg-affected-stock/0794561659.

Mukherjee, A., and Nuñez, R. (2019), "Doing well by doing good: can voluntary CSR reporting enhance financial performance?", Journal of Indian Business Research, Vol. 11 No. 2, pp. 100-119.
https://doi.org/10.1108/JIBR-07-2018-0199

Mukherjee, A., and Nuñez, R. (2019), "Doing well by doing good: can voluntary CSR reporting enhance financial performance?", Journal of Indian Business Research, Vol.11 No.2, pp.100-119.
https://doi.org/10.1108/JIBR-07-2018-0199

Nguyen Trong, N., and Nguyen, C. T. (2021), "Firm performance: the moderation impact of debt and dividend policies on overinvestment", Journal

of Asian Business and Economic Studies, Vol.28 No.1, pp.47-63.
https://doi.org/10.1108/JABES-12-2019-0128

Nguyen, V. H., Choi, B., and Agbola, F. W. (2020), "Corporate social responsibility and debt maturity: Australian evidence", Pacific-Basin Finance Journal, Vol. 62, 101374.
https://doi.org/10.1016/j.pacfin.2020.101374

Ni, X., and Zhang, H. (2019), "Mandatory corporate social responsibility disclosure and dividend payouts: evidence from a quasi-natural experiment", Accounting and Finance, Vol. 58 No. 5, pp. 1581-1612
https://doi.org/10.1111/acfi.12438

Ni, X., and Zhang, H. (2019), "Mandatory corporate social responsibility disclosure and dividend payouts: evidence from a quasi-natural experiment", Accounting and Finance, Vol.58 No.5, pp.1581-1612.
https://doi.org/10.1111/acfi.12438

Niccolò, N., Battisti, E., Papa, A., and Miglietta, N. (2020, November), "Shareholder value and dividend policy: The role of ESG strategies", in 2020 IEEE International Conference on Technology Management, Operations and Decisions (ICTMOD), pp. 1-5. IEEE.
https://doi.org/10.1109/ICTMOD49425.2020.9380585

NSE (2020). ESG analysis of 50 listed companies in India. ESG - Reporting.

Ntim, C. G. (2016), "Corporate governance, corporate health accounting, and firm value: The case of HIV/AIDS disclosures in Sub-Saharan Africa", The International Journal of Accounting, Vol.51 No.2, pp.155-216.
https://doi.org/10.1016/j.intacc.2016.04.006

Rampershad, A., and De Villiers, C. (2019), "The association between dividends and accruals quality", Australian Accounting Review, Vol.29 No.1, pp.20-35.
https://doi.org/10.1111/auar.12215

Ramezani, F., Arjomandi, A., and Harvie, C. (2022), "The economic and environmental effects of an optimal emission reduction subsidy policy in the presence of business cycles" Studies in Economics and Finance, (ahead-of-

print).
https://doi.org/10.1108/SEF-02-2022-0118

Renneboog, L., and Szilagyi, P. G. (2015), "How relevant is payout policy under low shareholder protection", Journal of International Financial Markets, Institutions and Money, pp. 1-18.

Reuters, T. (2011). Thomson Reuters Datastream Asset4 ESG content. Retrieved from [source].

Roberts, M.R. and Whited, T.M. (2013), "Endogeneity in empirical corporate finance1", Handbook of the Economics of Finance, Vol. 2, Elsevier, pp. 493-572.
https://doi.org/10.1016/B978-0-44-453594-8.00007-0

Roodman, D. (2009), "How to do xtabond2: An introduction to difference and system GMM in Stata", The Stata Journal, SAGE Publications Sage CA: Los Angeles, CA, Vol. 9 No. 1, pp. 86-136.
https://doi.org/10.1177/1536867X0900900106

Samet, M., and Jarboui, A. (2017), "Corporate social responsibility and payout decisions", Managerial Finance, Vol.43 No.9, pp.982-998.
https://doi.org/10.1108/MF-01-2017-0020

Samet, M., and Jarboui, A. (2017), "How does corporate social responsibility contribute to investment efficiency?", Journal of Multinational Financial Management, Vol.40, pp.33-46.
https://doi.org/10.1016/j.mulfin.2017.05.007

Sheikh, S. (2020), "Corporate social responsibility and corporate payout policy: the impact of product market competition", International Journal of Managerial Finance.
https://doi.org/10.1108/IJMF-09-2020-0465

Skinner, D. J., and Soltes, E. (2011), "What do dividends tell us about earnings quality?", Review of Accounting Studies, Vol.16, pp.1-28.
https://doi.org/10.1007/s11142-009-9113-8

Subramanian, S. V., Ambade, M., Kumar, A., Chi, H., Joe, W., Rajpal, S., and Kim, R. (2023), "Progress on Sustainable Development Goal indicators in 707 districts of India: a quantitative mid-line assessment using the National Family Health Surveys, 2016 and 2021", The Lancet Regional Health-Southeast Asia. https://doi.org/10.1016/j.lansea.2023.100155

Verga Matos, P., Barros, V., and Miranda Sarmento, J. (2020), "Does ESG affect the stability of dividend policies in Europe?", Sustainability, Vol. 12 No. 21, pp. 8804.
https://doi.org/10.3390/su12218804

Wamba, L. D. (2022), "The determinants of environmental performance and its effect on the financial performance of European-listed companies", Journal of General Management, Vol.47 No.2, pp.97-110.
https://doi.org/10.1177/03063070211021050

Wintoki, M.B., Linck, J.S. and Netter, J.M. (2012), "Endogeneity and the dynamics of internal corporate governance", Journal of Financial Economics, Elsevier, Vol. 105 No. 3, pp. 581-606.
https://doi.org/10.1016/j.jfineco.2012.03.005