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ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) AND PUBLIC POLICY: A SYSTEMATIC REVIEW

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Abstract:

The increased prominence of ESG requires an understanding of how ESG practices relate to public policy systems. There are numerous reviews to comprehend the ESG-policy connection, but there are meaningful gaps. This paper addresses this by conducting a systematic review using the Scopus database, adhering to the PRISMA protocol. Of the 331 studies initially extracted, 96 studies remained for final analysis after applying the inclusion and exclusion criteria. This review explored trends, patterns, themes, and frameworks, while also identifying gaps and future research directions. The result demonstrates that ESG–public policy research is increasing rapidly but remains unevenly concentrated across various geographies, themes, theories, and methodologies. There is highly concentrated evidence for the USA and China, while other emerging economies remain significantly underrepresented, thus leaving unanswered the question of whether the results are generalizable. Thematically, there is a concentration of work on policy making, sustainability, governance, and corporate social responsibility. Theoretically, there is a narrow predominance of lenses, and behavioral and interdisciplinary approaches are not being utilized sufficiently. Methodologically, quantitative designs predominate, generating robust evidence but risking simplification. Furthermore, this research identifies research gaps and proposes future research questions to encourage further exploration in the field of ESG in public policy.

Key words: *systematic literature review; environmental, social, and governance; ESG; public policy; PRISMA protocol*

1. Introduction

ESG has increasingly become the focus of research and policy discussions over recent decades (Li et al., 2021). Climate change, social equity, and responsible corporate behavior are just some of the global challenges driving this trend (Khamisu & Paluri, 2024).

Likewise, governments, investors, and civil society are urging companies to integrate ESG into their strategies, reporting, and decision-making processes (Marfu et al., 2025). The shift is transformative as it transforms sustainability from an add-on to a driver of long-term value and social license (Aslaksen et al., 2021). The increasing salience of ESG highlights an urgent need for clarity on how public policy frameworks and corporate ESG practices interact in convincing firms to comply with and innovate around sustainable performance (Song & Ma, 2025).

The importance of this intersection is its two-level character: on a global level, institutions such as the United Nations promote voluntary frameworks like the SDGs, while the European Union implements regional regulations (e.g., the EU Taxonomy) that create global supply chain spillover effects (Redondo Alamillos & De Mariz, 2022; Huck, 2022), whereas on a domestic level, countries create customized ESG rules, green financing plans, and disclosure standards (Arhinful et al., 2025; Phan, 2024). This two-level picture reflects the reality that ESG is not solely an issue of voluntary corporate responsibility, but also an imperative driven by government regulations and public policy frameworks. For countries such as China and the United States, ESG policies have a direct impact on global supply chains and global markets (Janicka & Sajnóg, 2023). Contrarily, in developing economies, ESG initiative es align with the imperatives of sustainable development and investment attractiveness (Soni, 2023).

A growing body of academic work has explored various dimensions of ESG adoption (Li et al., 2021; Zhao et al., 2023). This existing literature encompasses a broad range of themes, including the relationship between ESG and financial performance, the impact of governance and leadership on ESG outcomes, the effects of environmental regulation and green finance, and the credibility of ESG disclosure and ratings. Despite this abundance of existing work, however, key gaps remain. Much of the work remains fragmented across disciplines, with a scarcity of integration across ESG studies conducted in corporate governance, finance, and public policy (Yunus & Nanda, 2024; Ed-Dafali et al., 2025). While numerous studies have been conducted on specific countries (e.g., China and the United States), there is relatively little comparative or cross-regional work on any facet of ESG, particularly in developing nations (Singhania & Saini, 2023; Ronalter et al., 2023; Bezerra et al., 2024). This leaves unanswered questions about how different policy environments influence ESG adoption and performance globally.

This study differs from previous works by systematically synthesizing ESG literature specifically through the lens of public policy, highlighting how governments and institutions shape ESG outcomes. While earlier reviews tend to focus on financial or corporate settings, the current study places special emphasis on the policy dimension and identifies the regulatory, institutional, and governance contexts that support or hinder ESG integration (Amin et al., 2025; Andrikopoulos, 2025; Ayub et al., 2025; Bosi et al., 2022). In a systematic review, the study not only maps the geographic and thematic dispersion of ESG works but also explores conceptual lenses, analytical bases, and methodological orientations. Linking corporate ESG work to public debate enriches the full picture of the ESG context.

This study conducts a systematic review of ESG research, focusing on its public policy context, and identifies dominant themes, theoretical foundations, research gaps, and

future directions. This paper helps ESG theory-developing scholars, policymakers designing effective regulatory regimes, and businesses seeking legitimacy and competitiveness through sustainability initiatives. This analysis highlights how ESG functions as both a firm's responsibility and a policy-connected imperative, providing a pathway to a more sustainable and resilient economy. Correspondingly, this paper tries to address the following research questions:

1. What are the major trends and patterns in ESG research within the context of public policy?
2. What dominant themes and conceptual frameworks have emerged in the intersection of ESG and public policy?
3. What are the research gaps and potential directions for future ESG research?

2. Literature review

ESG review work to date—encompassing both primary empirical studies and previous systematic reviews—spans theory, measurement, and field mapping. On the theoretical side, scholars consolidate why firms disclose ESG—most often through stakeholder, legitimacy, institutional, agency, and signaling lenses—while also noting underused perspectives, such as the upper echelons (Del Gesso & Lodhi, 2025). Other reviews argue that ESG scores were originally designed for financial risk and are now split across separate logics—finance, CSR, sustainability, disclosure, and ESG analysis (Clément et al., 2025). Bibliometric and content reviews chart the field's rapid expansion and core clusters—investing, disclosure/integrated reporting, links between ESG, performance, and value, governance, and digital transformation—especially after 2020 (Ayub et al., 2025; Bosi et al., 2022; Jain & Tripathi, 2023; Zhao et al., 2023). Complementary syntheses connect ESG to business outcomes and capabilities (Aggarwal et al., 2025; Ahmad et al., 2024; Feng et al., 2025; Xia, 2022), and document a surge in interest in the topic during the COVID-19 crisis (Savio et al., 2023).

Sector- and context-specific reviews show the importance of the institutional setting. For example, in the context of state-led investment, sovereign wealth funds require stronger legal foundations and common indices (Pascoal et al., 2023). Sovereign wealth funds lead sovereign investing and require stronger legal foundations and common indices (Pascoal et al., 2023). Industry syntheses tend to focus on environmental insurance in relation to climate risk (Marti et al., 2024), a heterogeneous reporting and risk-return-impact model (Andrikopoulos, 2025), and green finance (Amin et al., 2025). China-focused work traces policy evolution, ESG ratings in finance, digital transformation, and mixed evidence on financing costs (Wu, 2023). Evidence on policy and governance is patchy—soft rules vs. legislation in South Africa (Chawarura et al., 2025), green bonds and ratings (Zairis et al., 2024), ESG in Islamic finance and the sustainable development goals (Nasution et al., 2023), and calls for public-administration theorizing (Deb, 2024). Cross-cutting reviews connect ESG to total quality management (Lim et al., 2022), Industry 5.0 (Rehman & Umar, 2025), AI-enabled business intelligence for reporting and energy

(Khaddam & Alzghoul, 2025), marketing strategy (Jain & Ovais, 2025), and a structured approach to net-zero projects (Chatterjee et al., 2025).

A meta-analysis finds that ESG disclosure reduces risk—especially crash risk—and financing costs, while enhancing sustainability performance, innovation, investment efficiency, and financial outcomes; the effects differ between developed and developing markets (Wang et al., 2025). However, common gaps persist—overweighting of "E" relative to "S" and "G," non-equivalence of ESG constructs and scores (Clément et al., 2025), sectoral and regional context, and only piecemeal treatment of the policy relevance. This paper addresses this gap by centering the ESG–policy link. This paper synthesizes the literature across the E, S, and G pillars with an explicit focus on policy relevance. This paper examines temporal, regional, and methodological patterns, distills recurring themes and frameworks that structure policy debates, and assesses where findings converge or conflict. Furthermore, this paper identifies underexplored domains and proposes a forward agenda to inform regulators, public managers, and researchers working at the connection of ESG and public policy.

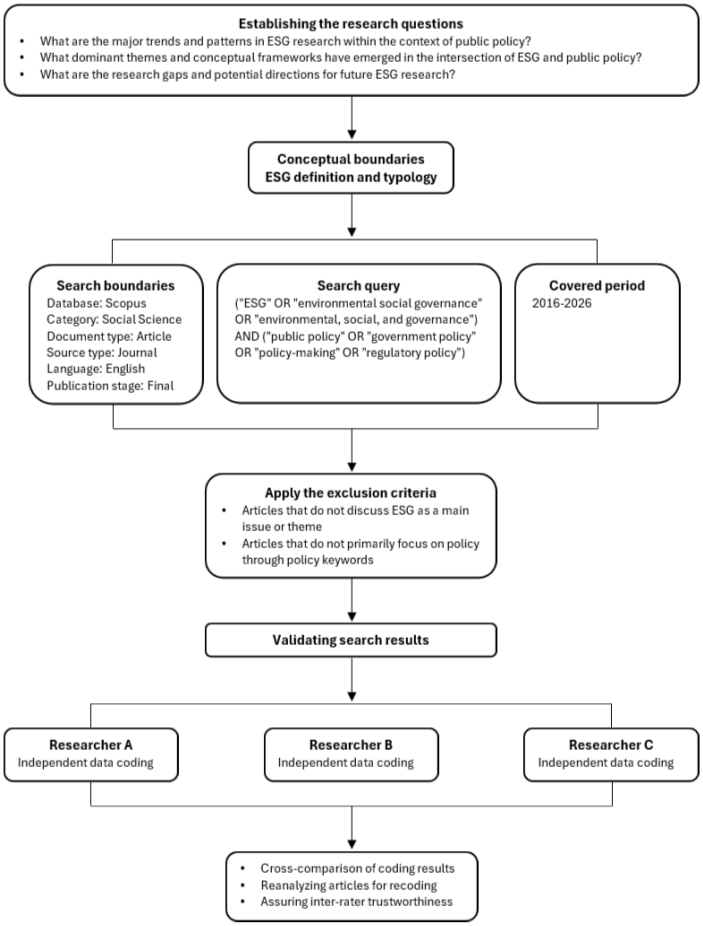
3. Methodology

This study employs a systematic literature review (SLR) (see Figure 1) to synthesize work at the intersection of ESG and public policy, adhering to the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) standards (Page et al., 2021) for transparent and replicable reporting, as illustrated in Figure 2.

The review was guided by the research questions and bounded by established definitions of ESG, specifically aligning with the MSCI ESG criteria and the triple bottom line (TBL) framework, to ensure conceptual clarity during screening. This paper used the following Boolean search string ("ESG" OR "environmental social governance" OR "environmental, social, and governance") AND ("public policy" OR "government policy" OR "policy-making" OR "regulatory policy"), to ensure that the search captured studies that explicitly examined ESG in the context of public and regulatory policy. From an initial Scopus yield of 331 articles, 216 were excluded—out of scope (n=189), incorrect type (n=24), or non-English (n=3)—resulting in 115 articles for full-text screening. This review included studies that treated ESG as a core topic and directly addressed policy/regulatory questions. Those articles where ESG was secondary or policy was not identified through policy-related keywords were excluded. This process resulted in 19 excluded papers because they were not retrieved (n=4), not the article type (n=9), or irrelevant (n=6). Ninety-six studies that met the inclusion and exclusion criteria were incorporated into the final analysis.

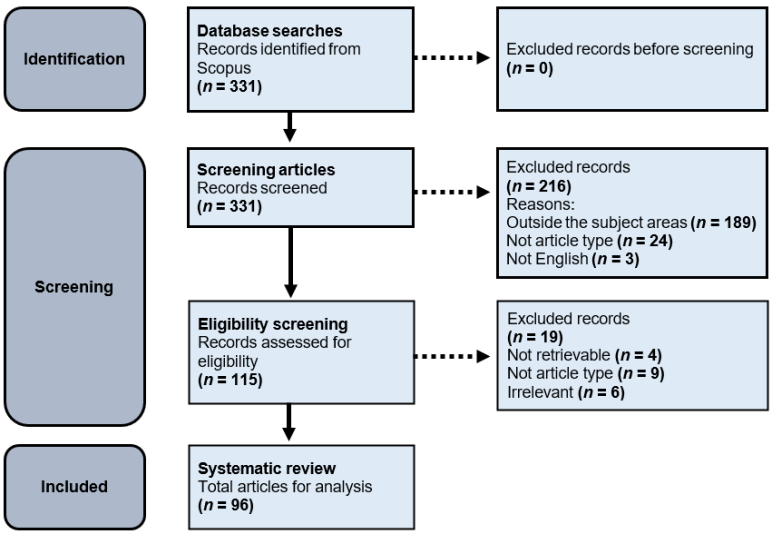
To ensure trustworthiness, three authors independently extracted and coded all included articles, after which the data were cross-checked for similarities. Inconsistencies were discussed, and in some cases, values were recoded. This cross-checking provided inter-rater reliability and increased the robustness of the data. Meanwhile, a co-word analysis was performed using VOSviewer version 1.6.20 (Van Eck & Waltman, 2024). A minimum occurrence threshold of three for author keywords was set and a custom thesaurus file to merge synonymous terms was applied to identify prevailing themes.

Figure 1 - The SLR process



Source: Authors' preparation

Figure 2 - The screening process



Source: Authors' elaboration of the PRISMA procedure

4. Results

4.1. What are the major trends and patterns in ESG research within the context of public policy?

Geographic and temporal coverage. Publication volume in the sampled literature surged significantly post-2020. Geographically, China leads (n=31), followed by global studies (n=14), the U.S. (n=10), Saudi Arabia and Indonesia (n=5), Europe (n=4), and Taiwan, South Korea, Malaysia, and Italy (n=3). A diverse set of countries—including the UAE, Turkey, Japan, Canada, Bangladesh, and Brazil (n=2)—demonstrates the widening geographical interest in ESG, although with more limited coverage. Many regions and countries, including Vietnam, Qatar, Poland, Peru, Pakistan, Oman, Malta, Latin America, Kuwait, India, Iceland, Germany, Bahrain, Asia, Africa, Russia, Estonia, Australia, and Argentina, has only one study each. ESG research remains unevenly distributed, with a strong focus on major economies and relatively limited attention to developing or smaller markets.

Focus of the study. Following a thematic coding process on the focus of the 96 included articles, eight key concepts emerged as shown in Table 1.

Table 1 - Focus of the ESG research

Focus	Description	Illustrative sources
ESG and financial performance (n=17)	Examines the link between ESG activities and firm financial outcomes.	Al Azizah and Haron (2025); Akyildirim and Corbet (2025)
ESG governance, leadership & corporate behavior (n=15)	Focuses on how governance structures, leadership styles, and board characteristics shape ESG outcomes.	Yu et al. (2025); Zhang et al. (2025);
Environmental policies, regulation & green finance (n=12)	Analyzes the impact of environmental regulations and financial tools on ESG outcomes.	Hong et al. (2025); Wang et al. (2025)
Sector-specific ESG applications (n=12)	Applies ESG research to specific industries and contexts.	Pujiyono et al. (2025); Gai et al. (2025)
Disclosure, reporting & ESG ratings (n=12)	Investigates how ESG is disclosed and evaluated.	Lukács and Rickards (2025); Yao et al. (2025)
Social & ethical dimensions of ESG (n=10)	Explores the social and ethical aspects of ESG.	Pezzulli (2025); Thake (2025)
Innovation, technology & transformation (n=10)	Explores the role of technological change in ESG performance.	Balcioglu and Evranos (2025); Baboe et al. (2025)
Macro/philosophical & framework studies (n=8)	Develops system-wide models and conceptual approaches to ESG.	Shi and Yao (2025); George et al. (2025)

Source: Authors' preparation

Research design. Most of the studies employed quantitative research design (n=78), while 11 studies were using mixed methods, and 7 are qualitative. Among the quantitative studies, observational research design was most common (n=62), followed by quasi experimental (n=13), and simulation/optimization (n=3). The mixed-methods studies used convergent parallel designs (n=5), exploratory sequential designs (n=4), and explanatory sequential designs (n=2). The quantitative studies primarily used case study designs (n=3), content analysis (n=2), discourse analysis (n=1), and multi-method (n=1).

Policy context. Most studies are national in scope (n=62), with fewer anchored in international context (n=23), regional blocs (n=10), and very few at the local level (n=1).

ESG focus. Most studies look at the overall ESG score (n=76). Far fewer examine the parts separately—environment (n=22), governance (n=14), social (n=8).

4.2. What dominant themes and frameworks have emerged in the intersection of ESG and public policy?

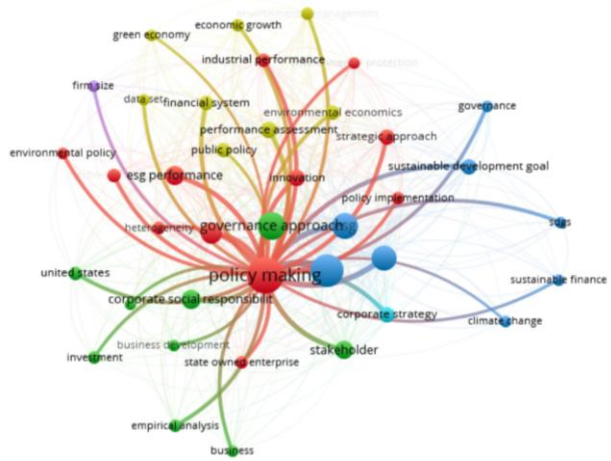
4.2.1. ESG research themes in public policy context

Policy making. Strong environmental regulatory enforcement can increase firm value by improving ESG performance. When ESG reporting is mandatory, investors gain a clearer picture, which helps direct capital to more beneficial uses, especially in high-pollution industries (Hong et al., 2025). However, every policy choice comes with trade-offs. China's pilot green-finance reform zones, which prioritize carbon-related disclosures, however, seem to overshadow biodiversity reporting (Yang & Wu, 2025). Conversely, technology-enabling initiatives such as 'digital government' have improved environmental and governance outcomes within mining organizations (Linghu & Guo, 2024). Policy uncertainty also matters. Climate-related uncertainty may cause some years of negative economic effects, but in the long term, it might drive an increase in ESG performance (Persakis, 2024). Companies use ESG reporting in practice to assist with understanding and managing policy-based risks. Clear and consistent policy guidance is, therefore, a crucial consideration in the ESG context.

Sustainability. Corporate practices and policies must integrate the sustainability and environmental components of ESG. The current trend emphasizes on encouraging innovation and regenerative practices rather than just minimizing adverse effects (Kramarz et al., 2024). One of the primary drivers of sustainable development is green innovation and technology (He et al., 2021). Fintech, for example, has been shown to enhance the quality of environmental information disclosure and reduce financing constraints, thereby improving the ESG performance of new energy vehicle companies (Huang et al., 2025). Corporate sustainability performance is also positively correlated with the integration of technologies, such as blockchain, particularly in areas of resource management and emissions control (Yu et al., 2026). Supply chain cooperation, green innovation, and

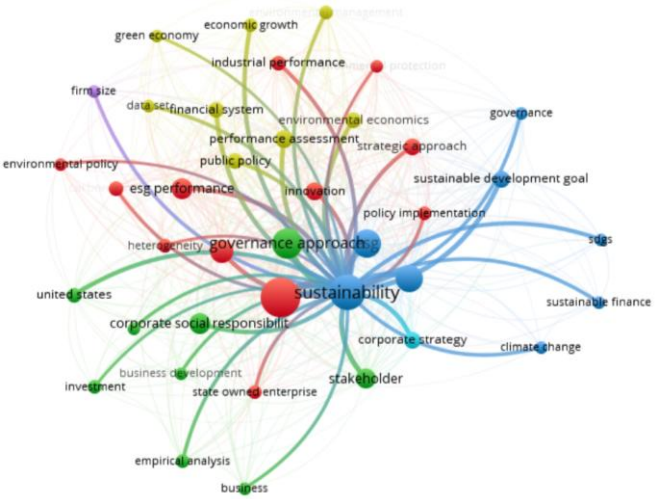
increased transparency are ways in which intelligent manufacturing technology enhances ESG performance (Huang et al., 2024). Furthermore, different industries implement sustainability in different ways. For example, Indonesia's paint industry's economic performance is greatly enhanced by all of the ESG factors (Pujiyono et al., 2025). Innovation, cost control, renewable energy, and human capital development are the most important sustainability metrics in Vietnam's energy sector (Tsai et al. (2025). Conversely, some policies may not produce the best outcomes. For instance, because they prioritized carbon incentives, China's green finance pilot zones reduced the disclosure of biodiversity (Yang & Wu, 2025). Integrating the concepts of the circular economy with ESG standards, such as the circular-ESG framework, is hereby proposed to address these challenges. This provides companies and policymakers with a valuable tool for achieving regenerative development that respects planetary boundaries (Lu et al., 2024).

Figure 3 - Policy making cluster



Source: Scopus data analyzed using VOSviewer

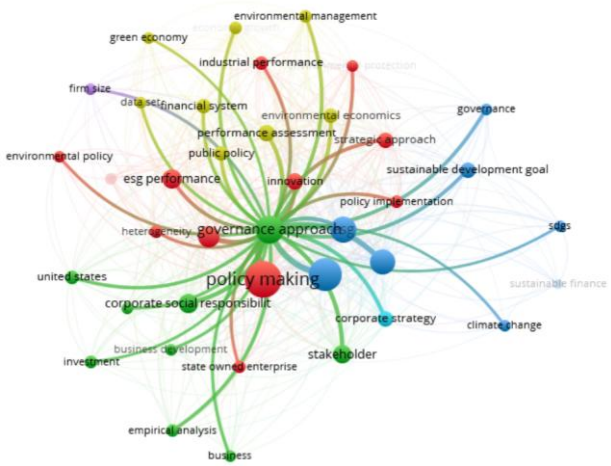
Figure 4 - Sustainability cluster



Source: Scopus data analyzed using VOSviewer

Governance approach. Governance structures and procedures are essential to the success of ESG initiatives. The independence, size, and gender diversity of the board have a direct impact on ESG performance (Agnese et al., 2024). While board diversity is positively correlated with governance scores, research from Europe, the Americas, and Asia suggests that gender diversity in management is associated with higher social performance scores (Sandretto et al., 2025). The presence of women on boards is significantly and favorably associated with more comprehensive ESG disclosures in Saudi Arabia (Bannour & Abdelkawy, 2024). Another study conducted in China discovered that although board independence and independent directors with foreign experience improve ESG, gender diversity and board size have no discernible effect on ESG (Ding et al., 2024). Linking financial performance and the quality of ESG reporting can be strengthened by robust governance, which can act as both an amplifier and a mediator of these relationships (AlHares, 2025). Well-run corporations can neutralize poor public oversight in the battle for enforcement against tax cheats by reducing operational risk for businesses (Montenegro, 2021). Companies that establish specialized governance and sustainability boards generally achieve stronger ESG rankings (Sneideriene & Legenzova, 2025). Nonetheless, ratings often diverge because agencies rely on distinct methodologies and data sources. Transparency encouraged by China's social credit framework helps address this (Park & Jang, 2021). However, in places with strong government oversight, some companies treat CSR reports like PR—using them to soften the reputational blow of tax-evasion issues (Montenegro, 2021).

Figure 5 - Governance approach cluster

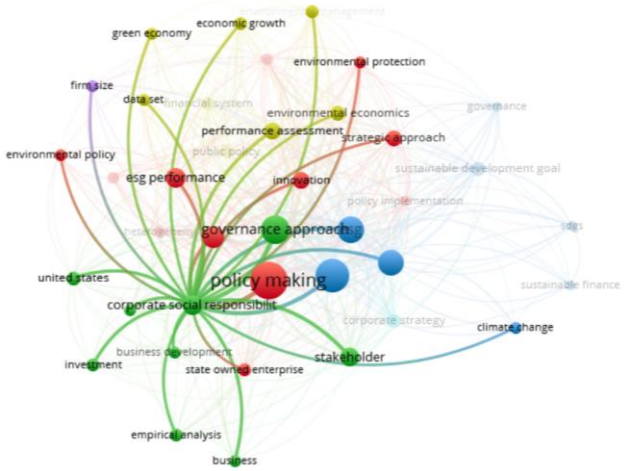


Source: Scopus data analyzed using VOSviewer

Corporate social responsibility (CSR). This cluster examines the social pillar of ESG—how firms engage employees, communities, and other stakeholders—and its mixed effects across contexts. A study in China reports a positive correlation between stronger ESG scores and wider internal pay gaps, particularly in high-market-value, capital-intensive firms (Zhou et al., 2025). ESG initiatives in Bangladeshi manufacturing are associated with gains in innovation and sustainability (Zhou et al., 2023). Involving

traditional owners in water management supports sustainable use and creates social and economic opportunities in the mining context (Ahmed et al., 2019). Since the COVID-19 pandemic, interest in sustainability has grown, making equity crowdfunding a viable channel for projects with environmental and social goals (Gai et al., 2025). Reputation risk also skews toward the social and governance dimensions—evidence from aviation suggests these issues carry greater reputational impact than environmental ones (Akyildirim et al., 2025). Conversely, firms with controlling shareholders who hold foreign residency are more likely to engage in greenwashing, so regulators should tighten audits and encourage more rigorous public reporting (Zhang & Wen, 2025).

Figure 6 - Corporate social responsibility cluster



Source: Scopus data analyzed using VOSviewer

4.2.2. Leading frameworks and theories in ESG research

Table 2 illustrates how central theories and frameworks together organize ESG and public policy research by connecting firm motivations, disclosure conduct, performance measurement, and market results.

Table 2 - Dominant theories and frameworks in ESG and public policy research

Rank	Theory/framework	Primary focus in ESG context	Illustrative sources
1	Stakeholder theory	The core driver for ESG adoption, focusing on corporate responsibility and accountability to non-shareholder groups (employees, community, environment).	Xu et al. (2024); Del Gesso & Lodhi (2025)
2	Agency theory	Fundamental to the Governance (G) pillar; addresses conflicts between management (agents) and shareholders (principals) regarding sustainability strategy.	AlHares (2025a); Velte (2016)

Rank	Theory/framework	Primary focus in ESG context	Illustrative sources
3	Institutional theory	Explains *why* firms adopt ESG practices due to external pressures (regulations, norms) to achieve legitimacy and conformity.	Ding and Wang (2025); Del Gesso and Lodhi (2025)
4	Legitimacy theory	Explains the *motive* for ESG disclosure; firms report to manage public perception and close the gap between their actions and societal expectations.	Del Gesso and Lodhi (2025); Zhang and Wen (2025)
5	Information asymmetry theory	Highlights the imbalance of information between management and investors, thereby justifying the need for ESG transparency and standardization.	Huang et al. (2025); Ding et al. (2025)
6	Signaling theory	Used to explain *market effects*; firms with strong ESG send positive signals to investors to reduce uncertainty and potentially lower capital costs.	Arhinful et al. (2025); Huang et al. (2025)
7	Resource dependence theory	Focuses on how firms manage critical external resources (natural capital, social license to operate) by engaging in ESG activities to reduce dependencies.	Ali et al. (2024); Jiang et al. (2023)
8	Triple bottom line (TBL)	A core measurement framework that emphasizes evaluating performance across three dimensions: People, Planet, and Profit.	Kramarz et al. (2024); Ionescu et al. (2020)
9	Resource-based view (RBV)	Posits that superior ESG performance creates unique, intangible assets that serve as a source of sustainable competitive advantage.	Li (2024); Sayilir et al. (2025)

Source: Authors' preparation

4.3. What are the research gaps and potential directions for future ESG research?

4.3.1. Gaps in ESG literature

Methodological and design limitations. Across the ESG policy literature, methodological limitations remain a primary concern, as cross-sectional designs dominate the field. These studies frequently struggle with endogeneity, self-selection, short panel data, and even reverse causality. Stronger causal designs—like difference-in-differences, instrumental variables, regression discontinuity, or rigorous event studies—are utilized too rarely or not rigorously enough to establish definitive impacts (Zhang et al., 2025; Sandretto et al., 2025; Lee, 2025). Furthermore, data rely heavily on self-reports, expert-only or employee-only surveys, or manual text coding (Lukács & Rickards, 2025; AlHares, 2025; Paridhi et al., 2025). Consequently, lag effects are rarely modeled (Ding et al., 2024;

Li et al., 2024; Chen et al., 2024) , and long-term effects on innovation diffusion, productivity, and organizational resilience are rarely tracked over time (Desai, 2025; Zhao et al., 2024; Yang & Wu, 2025).

Measurement and standardization issues. A second major gap lies in measurement inconsistencies. Many papers lean on a single ratings vendor despite large rater disagreements, which, alongside nonstandard measures, impedes cross-study comparability (Ding et al., 2024; Li et al., 2024; Chen et al., 2024). Researchers frequently rely on crude proxies and overlook recall bias, untested model assumptions, cross-country accounting differences, and narrow event windows (Bressan, 2023; Lee et al., 2025; Al Azizah & Haron, 2025; Thake, 2025). Additionally, composite ESG scores are used much more frequently than pillar-level analyses (Balcioglu & Evranos, 2025; Zhang et al., 2025). This aggregation obscures the nuances of the data, resulting in poorly identified environmental, social, and governance mechanisms and their interactions. Ultimately, this leads to conflicting data regarding claims of ESG-driven resilience, the impact of board diversity, and relationships to performance.

Sample and contextual biases. Third, the literature exhibits significant sampling and geographic biases. Samples consistently cluster around listed companies in a small set of countries and sectors (Huang & Liu, 2024; Tsai & Lin, 2024; AlHares, 2025). Many studies rely on short or dated observation windows, small or single-year samples, and narrow geographies (Al Azizah & Haron, 2025; Saleh & Maigoshi, 2025; Zafeiriou et al., 2023). Case studies of single firms are still common, which severely weakens the generalizability of the findings. Consequently, knowledge gaps persist regarding how outcomes vary across different institutional contexts, by industry, firm size, and ownership type. Small and medium-sized enterprises (SMEs), state-owned enterprises (SOEs)—including public welfare SOEs—unlisted firms, and many newer industries appear far less frequently in research samples.

Thematic and mechanistic blind spots. Finally, there are notable thematic, theoretical, and policy-oriented blind spots. The definition and scope of "ESG" remain unsettled, with single-theory narratives (e.g., pure risk mitigation) tending to cover competing views. While broad macro frameworks exist, they rarely specify the micro-level mechanisms that would make them operational (Curtis et al., 2021; Yao et al., 2025; Kramarz et al., 2024; Işık et al., 2024; Hoang, 2023). Empirically, it is seldom explored through mediation or moderation tests how transmission "channels"—such as technology mergers and acquisition, vertical integration, fintech, green credit, or political channels—actually translate into outcomes (Li, 2024; Li & Rasiah, 2024; Liu & You, 2023). Important variables, such as Scope-3 emissions or compliance costs, are often missing , and biodiversity is typically examined through narrow lenses. From a practical policy standpoint, only a few papers pilot emerging frameworks, specify decision-useful materiality thresholds, assess certification/enforcement capacity, or document funding and uptake in real policy settings (Nõmmela & Kaare, 2022; Olsen et al., 2021; Huang et al., 2023).

4.3.2. Future ESG research directions

Table 3 outlines a forward-looking agenda that encompasses context, mechanisms, and measurement in ESG research. The agenda highlights institutional innovations, such as social-credit-style systems, and the moderating role of policy uncertainty, stressing the need for designs that can identify mechanisms, transfer across contexts, and predict real-economy outcomes.

Table 3 - Potential directions for future ESG research

Future research questions	Illustrative sources
How do ESG–performance links differ between Islamic and conventional markets?	Al Azizah and Haron (2025); Yang and Wu (2025)
How do ESG outcomes vary between polluting and non-polluting sectors and across Belt-and-Road economies?	Zhang and Wen (2025); Babiker et al. (2025)
How do SMEs, SOEs, and unlisted firms' ESG practices and outcomes compare to listed peers across emerging vs. developed markets?	Ding and Wang (2025); Li and Rasiah (2024)
What are the short- vs. long-run causal effects of ESG adoption on productivity and innovation?	Kim and Lee (2023); Zhou et al. (2023
How do mandatory regimes change ESG behavior and capital-market pricing over time?	Sandretto et al (2025); Baboe et al. (2025)
How do macro shocks alter the ESG–performance relationship across business cycles?	Hoang (2023); E-Vahdati et al. (2023)
Do blended multi-provider ESG ratings outperform single-provider indices in predicting real outcomes?	Zhang et al. (2025); Lu et al. (2024)
Do integrated KPI suites that include S and G improve comparability and predictive validity versus E-only metrics?	Balcioglu and Evranos (2025); Paridhi et al. (2025)
How do firm-level biodiversity footprints and natural-capital accounts affect cost of capital and policy design?	Zhang and Biryukova (2025); Akyildirim and Corbet (2025)
What enforcement intensity is necessary for disclosure standards to deliver real-economy outcomes?	Li et al. (2024); Huang et al. (2024)
Do command-and-control schemes outperform market-based tools in improving ESG outcomes across sectors?	Nõmmela and Kaare (2022); Zhang et al. (2025)
Which board/CEO attributes causally drive ESG improvements and financial outcomes?	Zhang et al. (2025); AlHares (2025)
How does closing the gender pay gap interact with ESG performance and firm value?	Babiker et al. (2025); Cui and Wu (2025)
Through what processes does stakeholder engagement translate into measurable ESG	Ding et al. (2024); Zhao et al. (2024)

Future research questions	Illustrative sources
outcomes?	
What drives adoption and effectiveness of digital green finance across banking systems?	Zhao et al. (2024); Li et al. (2024)
How can standardized metrics of blockchain use in ESG/reporting improve transparency and outcomes?	Huang et al. (2025); Akyildirim et al. (2025)
What are the governance and market effects of social-credit-style systems on corporate ESG behavior?	Baboe et al. (2025); Pujiyono et al. (2025)
How does ESG performance/disclosure affect yields and borrowing costs across corporate, sovereign, and Sukuk markets?	Wang et al. (2025); Tsai and Lin (2024)
Do markets systematically under/overreact to ESG incidents, and what are the volatility/contagion dynamics?	Jiang et al. (2023); Huang et al. (2023)
How does policy uncertainty moderate the ESG–performance relationship?	Zou et al. (2023); Luke (2022);

Source: Authors' preparation

5. Discussions

Building from the results of this review, we highlight some critical areas in understanding the intersection of ESG and public policy research.

First, ESG studies have limited geographical distribution, and research efforts are particularly focused on China, the US, and global contexts. This is driven by both the economic importance of these regions and their focus on ESG disclosure and sustainability with regulatory and market frameworks. However, economies in Asia, Africa, and Latin America are still underrepresented, and only a limited number of peer-reviewed empirical studies are published from these regions. This geographic concentration restricts the cross-border generalizability of ESG policy insights to a more global level because institutional, cultural, and governance settings vary highly from one area to another. Additionally, broadening the geographical context of ESG research would fill a void in the literature while also providing more human and cultural insights into how local policy contexts and socio-economic circumstances shape ESG practices (Yu et al., 2025; Balcioglu & Evranos, 2025).

Second, the clustering of ESG research around policy making, sustainability, governance approaches, and corporate social responsibility emphasize the multidimensional nature of ESG in the public policy context. ESG adoption can be stimulated through regulation and financial policies (Yu et al., 2025; Hong et al., 2025). This highlights the need for a coherent long-term design of policies.

Sector-specific adaptation and the adoption of relevant technologies are also crucial to ESG progress. To keep carbon-centric incentives from overshadowing more

general ecological goals, such as biodiversity conservation (Yang & Wu, 2025), it is notable to use integrative models, such as a circular-ESG framework.

Conversely, governance-based research assessed the influence of board structures, independence, and diversity on ESG disclosure and performance (Agnese et al., 2024). However, the continued variability in ESG ratings highlights an urgent need for greater uniformity in standards, combined with regulatory oversight. The social prisms are also important – from employee equity to stakeholder engagement – for the legitimacy and effectiveness of ESG practices, at a time when greenwashing remains a concern in terms of accountability devices (Zhang & Wen, 2025). Promoting ESG within public policy will not prosper simply by greater regulatory clarity and enforcement, but also by innovative models of sustainability, inclusive governance mechanisms, and CSR practices that are credible beyond brand management, generating substantial societal value.

Third, stakeholder theory, agency theory, legitimacy theory, resource-based view, institutional theory, and signaling theory are among the few dominant viewpoints that have been heavily incorporated into ESG research. Although these theories provide strong frameworks for understanding firm behavior and disclosure, frequent use of these theories create a conceptual path dependence. Less attention has been given to behavioral and social theories such as prospect theory, social identity theory, or social learning, which could enrich explanations of how ESG practices diffuse across organizations and societies (Huang et al., 2023). Expanding the theoretical toolkit can both broaden our perspective and deepen the interdisciplinary foundation of ESG scholarship by incorporating insights from psychology, sociology, and economics.

Fourth, there is a definite preference for quantitative approaches, especially observational designs, which have been effective in producing robust empirical evidence of ESG outcomes, according to methodology trends in public policy and ESG research. However, the institutional and contextual complexity is often overlooked by these approaches (Saleh & Maigoshi, 2025). Quasi-experiments and simulations can test cause and effect, but they are limited and can oversimplify other realities of ESG policy (Zhou et al., 2025).

To address these methodological limitations, mixed-method studies—although currently less common—offer a much more comprehensive view of how policies shape ESG across various settings. The dynamics among stakeholders, regulations, and enforcement, as well as reporting and compliance on the ground, are especially conducive to qualitative investigation (Gai et al., 2025). Therefore, future research must combine quantitative robustness with qualitative depth, enabling policymakers to translate findings into actionable strategies.

Fifth, there is a deep interconnection between ESG practices and the design and implementation of public policy. The policy-oriented literature provides evidence that regulation and financial incentives may improve ESG performance (He et al., 2021). Still, when not well-calibrated or contradictory, they could incur negative trade-offs, which suggest the differences related to the optimal mix in green finance frameworks (Hong et al., 2025). Many sustainability-related investigations argue for the potential that lies in innovation, digital tools, and adaptation at the sector level to produce positive ESG outcomes (Baboe et al., 2025). However, working without an integrated policy compass will

put them at risk of missing key points, such as biodiversity and equity (Yang & Wu, 2025; Gai et al., 2025).

The socially responsible investment governance literature argues that board structures and institutional arrangements can enhance ESG factors, and indeed may serve as a substitute for weak national governance (Agnese et al., 2024). However, ongoing rating divergences and the treatment of CSR as a form of coating for compliance give rise to concerns about inconsistent approaches to regulation and accountability (E-Vahdati et al., 2023). On the CSR side, the findings emphasize the importance of stakeholder input, social responsibility, and ethical transparency (E-Vahdati et al., 2023), while also highlighting greenwashing risks that can erode trust in ESG (Zhang & Wen, 2025). To advance ESG through public policy, a clearer, better-coordinated rules and tighter links between governance models and stakeholder accountability is needed so that market momentum translates into real sustainability and social benefits.

Lastly, ESG and public policy scholarship must move beyond descriptive analyses toward deeper, comparative, and causal insights. The need for more specialized investment and regulatory approaches can be supported by investigations conducted at the cross-national, sectoral, and population levels that can clarify the differences in ESG practices across firms, industries, and institutional contexts (Ding & Wang, 2025); Li & Rasiah, 2024). ESG performance dynamics are reshaped by macroeconomic shocks, such as COVID-19, and changing mandatory disclosure regimes, which makes longitudinal and causal studies crucial for differentiating between short-term and long-term effects (Hoang, 2023); E-Vahdati et al., 2023). Improving measurement and standardization is also essential, as fragmented ESG ratings and narrow environmental metrics risk undermining comparability and the policy relevance of these metrics (Zhang et al., 2025); Lu et al., 2024). Governance and social mechanisms—ranging from board diversity to stakeholder engagement—require closer examination to clarify how internal structures and external relationships translate into measurable outcomes (Zhang et al., 2025); AlHares, 2025). Rapid advances in digital finance, blockchain, AI, and green FinTech underscore the importance of technology in scaling ESG adoption and transparency (Huang et al., 2025); Akyildirim et al., 2025). Linking ESG practices to actual economic effects will require market-focused research on pricing, volatility, and contagion (Jiang et al., 2023; Huang et al., 2023).

6. Conclusions

This systematic review demonstrates that ESG and public policy research is rapidly evolving and unevenly distributed across geographical, thematic, theoretical, and methodological dimensions, as evidenced by the post-2020 publication surge. Generalizability across diverse regulatory and institutional contexts is limited because most studies focus on China, the U.S., and global samples, with little coverage of developing economies. ESG research also centers on the themes of policymaking, sustainability, governance, and CSR. At the theoretical level, reliance on a narrow set of perspectives has produced strong but path-dependent insights. The limited use of behavioral and other

interdisciplinary lenses also points to a clear opportunity for conceptual growth. Frequent use of quantitative designs has produced solid evidence, but do not fully encapsulate the complex relationship between ESG and policy—underscoring the need for more varied approaches.

While this study makes a significant contribution to the ESG policy literature, it has its limitations. Focus on English-language articles from the Scopus database precluded the retrieval of relevant non-English and other pertinent publications. Future work may also probe more deeply on human rights and the multi-level governance factors that shape the effectiveness of ESG policy to strengthen the theoretical framework. Finally, empirical studies are needed to validate the identified relationships and to test constructs on ESG antecedents and contingencies, ensuring that future research is both cumulative and attentive to regional specificities and local knowledge within a global context.

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Appendix A. *Ninety-six studies included in the systematic review*

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