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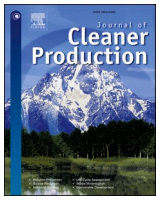

Review

Determinants of environmental social and governance (ESG) performance: A systematic literature review

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ABSTRACT

Understanding the determinants of firms' ESG performance is not only a key goal of the strategic management field, but it is also fundamental for addressing the world's most pressing environmental and social challenges and guarantee the survival of ESG as well. To date, no comprehensive overview has been carried out of the determinants that have the greatest impact on ESG criteria. In this work, internal and external determinants are identified and analysed, and the potential causes of the discrepancies in research findings are explored. This Systematic Literature Review was developed in accordance with the PRISMA guidelines, whose process led to a content analysis of the results. The current study proves that the discrepancies in literature findings are a direct consequence of the lack of consideration by scholars of the different usage of ESG data providers as well as the variance among countries. Not only does this study represent the first pioneering framework on the topic, but it could also serve as a guidebook for firms wishing to improve their ESG performance.

1. Introduction

To date, the most common framework to measure the sustainability performance of companies is the Environmental, Social, Governance (ESG) perspective. Commonly linked to ethical or socially responsible investment (Galbreath, 2013), ESG criteria have become key indicators of management competence, risk management, and non-financial performance. Furthermore, in contrast to the concepts of Corporate Social Performance (CSP) or Corporate Social Responsibility (CSR), ESG explicitly covers a large variety of issues related to the environment (e.g., climate change, energy, carbon emissions), social responsibility (e.g., human rights, product safety, employee well-being), and governance (e.g., board independence, corruption, shareholder protection).

The importance of the ESG paradigm for finance and the economy is growing rapidly. Both progressive and mainstream investors have been following the crescendo of ESG fever and are now driving the demand for a further understanding of ESG performance, as for the first time in history they recognize "that climate risk is investment risk" (Arvidsson and Dumay, 2022). Indeed, according to a 2018 global survey, more than half of global asset owners are currently implementing or evaluating ESG considerations in their investment strategy (Ahlström and Monciardini, 2022). The notable rise of ESG is demonstrated by the fact that socially responsible investment has risen globally more by than 34% since 2016, and "in the last two decades ESG integration has grown by 60%" (Umar et al., 2020).

However, after a decade of unstoppable growth, the ESG paradigm has been recently subject to several criticisms and has become the object of political and ideological battles (Crowley and Eccles, 2023; Damodaran, 2023). Such occurrences show that increasing our understanding of the dynamics underlying this phenomenon is of the utmost importance to guarantee a fair debate among society and policymakers.

The debate about ESG is not only increasingly common among practitioners but also among scholars. In fact, there is a great amount of newly published empirical studies on ESG performance and on its determinants (see Table 1). For instance, the majority of previous studies focused on few or single determinants (Disli et al., 2022; Chen et al., 2022; Mooneeapen et al., 2022; Garcia and Orsato, 2020), limited geographical scope (Chen et al., 2022; Short et al., 2015) or use of one data provider (Orlitzky et al., 2017; Short et al., 2015; Garcia et al., 2017; Garcia and Orsato, 2020 Arminen et al., 2017; Cai et al., 2016; Mooneeapen et al., 2022; Chen et al., 2022; Disli et al., 2022). Besides, most of the papers with similar topics have shown inconsistencies in

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Table 1
Relevant papers and literature gap.

Authors	Methodology	Aim of the Study	Determinants	Geography	Database used	ESG measurement	Time Frame	Opportunities for Future Research
Ali et al. (2017)	Systematic Literature Review	The study reviews the determinants driving CSR disclosure	Internal and External	Developed Countries and Developing Countries	Google Scholar	The paper does not give an analysis of the sources of the disclosures or their measurement	Until 2014	Limitations: - One single search database analysis of CSR disclosure, which is connected but not equivalent to ESG performance. - The topic of ESG measurement & dataset has not been addressed. - The review does not analyse literature discrepancies - Need to update the time frame.
Crace and Gehman (2022)	Quantitative methods: variance partitioning models	The study analyses what factors explain variation in ESG performance between firms	Internal and External	U.S context	–	MSCI ESG KLD STATS	2003–2010 & 1993–2002	Limitations: - Large publicly traded companies - A single country, which undermines the analysis of external determinants (countries' differences) - Internal determinants are limited to CEO and firm characteristics - Single ESG dataset - Need to update the time frame
Disli et al. (2022)	Quantitative methods: two-step system GMM estimation method	The study investigates the effects of corporate attributes on corporate sustainability	Internal *corporate governance*	Emerging Countries	–	Refinitiv	2010–2019	- More research is needed to explain the origins and different determinants of sustainability performance - Single ESG dataset
Chen et al. (2022)	Quantitative methods: differences- in-differences (did) model	The study aims to analyse the impact of green financial reform on the ESG scores of enterprises.	External *regulation*	China	–	Bloomberg	2014–2020	- More research to analyse the effect of green finance policies outside China - Single determinant analysed - Single ESG dataset
Orlitzky et al. (2017)	Quantitative methods: three different methods of variance decomposition analysis	The study aims to estimate the influence of macro, meso and micro factors on CSP	Internal and External	International Sample	–	Sustainalytics	2003–2007	- Need to update the time frame - Single ESG dataset
Mooneeapen et al. (2022)	Quantitative methods: fixed effects multiple linear regression	The study aims to estimate the influence of country governance on ESG performance	External *country governance*	27 countries	–	Refinitiv	2015–2019	- Single ESG dataset - Single determinant analysed - Analyse the effect at the disaggregate level
Cai et al. (2016)	Quantitative methods: OLS regression	The study aims to analyse why countries matter so much in CSP	Internal and External	36 countries	–	MSCI ESG KLD STATS	2006–2011	- CSP strengths and concerns are not considered - Single ESG dataset - Need to update the time frame
Arminen et al. (2017)	Quantitative methods: linear regression analyses	The study aims to estimate inter-industry and international differences of companies' CSP	External *country governance and industry*	52 countries	–	CSRHUB	2010–2015	- A clear majority of the companies come from a relatively limited number of countries (U.S, Japan, U.K)

(*continued on next page*)

Table 1 (*continued*)

Authors	Methodology	Aim of the Study	Determinants	Geography	Database used	ESG measurement	Time Frame	Opportunities for Future Research
								- Single ESG dataset - Need to update the time frame
Garcia and Orsato (2020)	Quantitative methods: regression analysis	The study aims to analyse the relationship between ESG and financial performance	Internal *financial performance*	Emerging and Developed Countries	–	Refinitiv	2007–2014	- Future research can include other emerging countries - Need to update the time frame - Single determinant analysed - Single ESG dataset
Garcia et al. (2017)	Quantitative methods: linear regression	The study investigates the influence of financial performance in firms of sensitive industries	Internal and External financial performance and industry	BRICS countries	–	Refinitiv	2010–2012	- Future research can include other emerging countries - Need to update the time frame - Limited determinants analysed - Single ESG dataset
Short et al. (2015)	Quantitative methods: RCM analysis	The study aims to examine the degree to which CSP is related to firm, industry, and temporal factors	Internal and External	U.S	–	KLD	2003–2011	- The study sample was limited to publicly held U.S firms - Need to update the time frame - Single ESG dataset

their results and contradict each other. Mooneeapen et al. (2022) concluded that the ability of a country's citizens to participate in selecting their government and to have a voice as well as political stability and without violence is associated with lower ESG performance. In contrast, Cai et al. (2016) affirmed that countries with weak civil liberties and political rights exhibit lower CSP. Similarly, some authors recognize the industry effect as the strongest external effect (Crace and Gehman, 2022) or as having a significant impact on determining ESG performance (Arminen et al., 2017; Garcia and Orsato, 2020). On the other hand, others have highlighted the relative unimportance of its role (Orlitzky, et al., 2017; Short et al., 2015; Garcia et al., 2017). In addition, articles on the role of financial performance in determining ESG performance have demonstrated incoherent results, ranging from papers highlighting the positive relationship (Cai et al., 2016) to those that have found no association (Garcia et al., 2017). Because these inconsistencies have not yet been adequately addressed, it is still difficult to compare the results, and it is still hard to fully understand what determines and drives ESG performance.

Hence, this complexity and evidence proliferation, characterized by several gaps and inconsistencies, needs to be systematized and provides an important opportunity for elaborating a comprehensive picture.

By comprehensive picture we refer to a study that systematically review existing literature and that combines in the analysis an exhaustive set of possible determinants, a wide spectrum of countries and the usage of multiple ESG dataset. Table 1 shows the limitations of previous studies in elaborating a comprehensive picture that our study seeks to overcome.

Among them, Crace and Gehman (2022) provided an important empirical contribution to the literature on ESG performance determinants, starting from the historical debate on the internal and external factors that influence when and why some firms outperform others over time. Their paper highlights the role of the CEO and firm characteristics as the most relevant determinants in enhancing ESG performance. However, this empirical evidence is limited to large publicly traded companies, to a single ESG rating provider and to a single country, thus preventing any investigation of external determinants related to countries' differences in institutions and cultures. Besides, no internal determinants other than firm or CEO characteristics were included in the analysis.

Therefore, our review aims at extending and complementing their findings by integrating them with the rest of the literature in the process of systematization.

To the best of our knowledge, the main contribution in terms of systematizing existing knowledge on a related dimension was provided by the literature review by Ali et al. (2017), which explored the factors driving CSR disclosure. They found crucial differences between the determinants of CSR disclosure in developed and developing countries. The external forces/powerful stakeholders, such as foreign investors, international media, and international regulatory authorities, have a greater impact on CSR reporting in developing nations. Nonetheless, the authors did not address the topic of existing variance of ESG measurement framework or the issue of the major discrepancies in the literature concerning the role of some determinants. Furthermore, their analysis focused on CSR disclosure, that although connected is not equivalent to the concept of ESG performance.

Thus, we complement their results by shifting the attention from the disclosure to the performance and extending the analysis from CSR to the entire ESG spectrum. We also filled the gap in the study by investigating the discrepancies in the literature as well as the reasonings at the root of the contrasting results. Furthermore, we use both the scientific databases Scopus and Web of Science, rather than Google Scholar, to conduct our literature search and review. This methodological decision strengthened the rigour and academic formality of our research by prioritising sources retrieved from the aforementioned databases, which are renowned for their comprehensive indexing of peer-reviewed scholarly literature. Finally, this study summarises and systematizes knowledge contained in 153 papers analysed, of which only 21 were published before 2014 and thus potentially included in Ali et al. (2017). Therefore, our work has responded to the current crescendo of ESG fever and complements and extends substantially the previous literature taking into account a substantial number of new evidence that has been never systematized before.

In line with the existing empirical literature and systematisations, this study aims to critically analyse the existing literature, identifying and discussing four main limitations.

1) Contrary to firm performance, the measurement of ESG performance lacks standardisation. ESG ratings from different providers often exhibit "substantial disagreements" (Berg et al., 2022, pag.1), resulting in uncertainty when comparing companies' ESG profiles and difficulties in synthesizing the findings of multiple studies.
2) In terms of research on ESG performance, both developed economies and emerging markets have garnered significant attention (Lozano and Martinez-Ferrero, 2022; Cai et al., 2016; Garcia and Orsato, 2020; Mooneeapen et al., 2022). However, the exploration of differences among countries as indirect drivers of determinants, particularly in terms of corporate governance and firm characteristics, has been limited. Consequently, there are instances where the generalization of certain findings is not possible.
3) In general, most articles focus more on internal determinants of ESG performance than external ones. This may be because internal determinants are easier to measure and control, while external determinants may be more complex and difficult to quantify. Neglecting external determinants of ESG performance can be problematic because it may lead to an incomplete understanding of the factors that drive long-term sustainable performance. In alignment with the insights offered by Liang and Renneboog (2017) concerning CSR, the intricate and interdependent qualities of ESG, driven by externalities, imply that it should be intrinsically connected not just to a company's individual decisions, but also to regulations, institutional frameworks, and societal inclinations.
4) Limited focus on the singular pillars can weaken the value of research, as the "factors influencing various dimensions of corporate practices and performance to E, S and G components can differ" (Mooneeapen et al., 2022).

To solve these inconsistencies, we aim to identify and analyse the internal and external determinants (e.g., firm characteristics, industry, and country governance) influencing the fostering of real, sustainable change within firms. This study contributes also with an analysis of the literature's discrepancies regarding the role and impact of the determinants on ESG performance and the lack of standardisation of ESG and country differences as indirect drivers. The ESG analysis involved assessments at both the aggregated and disaggregated levels, in order to ascertain whether the impact of the determinants exhibited variations across the three pillars and sub-dimensions. Lastly, we assessed the capacity of various theoretical frameworks to comprehensively explore the drivers of ESG performance, while simultaneously evaluating the theoretical contributions of the paper. This study being at our current knowledge, is the first research to explore the potential causes of discrepancies in research findings about ESG performance related to the usage of the different providers as well as proving the interdependence of external and internal determinants on composite ESG and its singular pillars. Most importantly, it can help createthe basis of a comprehensive overview of the ESG Framework.

The paper is thus structured as follows: section 2 focuses on the theoretical background; section 3 presents the research methods and explores the Systematic Literature Review (SLR); the fourth section explores the results, highlighting their interconnectedness with the prevailing knowledge gap; the last section proposes future research. Finally, we present the conclusions.

2. Theoretical background

2.1. The importance of the internal and external determinants of variation in ESG performance

The debate on ESG performance takes its roots in the historical debate on the internal characteristics and external environment that explain when and why some firms perform better than others over time (Crace and Gehman, 2022) and how they increase their CSP (Orlitzky et al., 2017). By internal determinants we refer to all the financial (Khaled et al., 2021) and non-financial characteristics, such as structure, resources, mindsets (Cai et al., 2016), CEO (Garcia-Blandon et al., 2019), and board attributes (Beji and Loukil, 2021). External factors include regulatory frameworks (Ahlström and Monciardini, 2022), country effects (Umar et al., 2020), industry (Short et al., 2015), and time (Orlitzky et al., 2017). In the strategic management literature, studies have generally found that while both firm and industry factors influence Corporate Financial Performance, firm-level factors explain a higher proportion of the variance (Short et al., 2015), especially because of their unique resource configurations (Barney, 1991). In terms of ESG performance, it is largely unclear whether we can draw similar conclusions, and the scenario is still unsatisfactory.

From the literature we know that external factors can set the context and provide the incentives for a company to prioritize ESG practices (Foo Nin et al., 2012). The policy and regulatory dynamics at the global, European Union (EU), and state level have gained extraordinary prominence over the last decade (Ahlström and Monciardini, 2022), but other elements such as economic development (Foo Nin et al., 2012) and economic crises (Cassely et al., 2021) have prompted companies to reorient their sustainability strategies. In addition, the literature highlights the importance of informal institutions, especially country-specific cultural beliefs in shaping ESG performance (Foo Nin et al., 2012; Ortas et al., 2015; Cai et al., 2016). Concerning industry-level factors, some authors stress their salient influence on ESG (Crace and Gehman, 2022), while others have illustrated their secondary role compared to firm factors in explaining CSP (Short et al., 2015).

However, it is ultimately up to the company's internal decision-making processes and practices to implement and execute effective ESG strategies. Leadership and culture, business strategies, and risk management can all have a significant impact on a company's ESG performance. A strong commitment to ESG principles from the top leadership related to its attributes (Crace and Gehman, 2022; Garcia--Blandon et al., 2019) and the relationship between unobservable CEO characteristics and CEO compensation (Kang, 2017), integrated ESG considerations within the company's overall strategy (Maniora, 2015; Mervelskemper and Streit, 2017), competition (Lindskov, 2023), and robust risk management influenced by corporate governance characteristics (Beji and Loukil, 2021; Disli et al., 2022) are all crucial to ensuring that a company is effectively managing its ESG risks and opportunities.

Having established that both internal and external determinants influence ESG performance, it is imperative to understand which ones better explain their heterogenous variance and to investigate whether there is consensus on the topic in the literature.

The first objective of this SLR is thus to respond to the following research questions:

> "What determinants explain the divergent ESG performance observed among firms? What are the drivers of the disparities within the literature regarding the role and impact of these factors on ESG performance?"

2.2. The importance of analysing ESG at the disaggregate level

Analysing ESG performance at the disaggregate level can provide more granular insights into a company's ESG performance. On the one hand, this can help investors and other stakeholders make more informed decisions about their investments and engagement with the company, and on the other can help companies to design the trajectory of their effective strategy.

Environmental performance refers to the implementation of good environmental practices and the corresponding outcomes, such as implementing pollution control measures, making environmental investments, and setting environmental policies. Social performance refers to community investments and internal social policies. Governance performance refers to the use of good practices based on ethical and anti-

corruption behaviours, board structures based on diversity and fairness, and transparency and sustainability as important elements in the company's mission. As expected, ESG performance increases as any one of its three dimensions improves, holding the others constant. In addition, the interplay between them can generate synergistic results (Husted and Filho, 2016). At the same time, Crace and Gehman's (2022) study highlights the need to distinguish between positive and negative indicators not to oversimplify the complex multidimensional nature of ESG performance. A detailed examination of the determinants may help to clarify the impact of certain elements because there are three distinct pillars that respond to distinct logics. The second objective of our review is to therefore answer the following research question:

> Are there discernible distinctions among the disaggregated dimensions and their corresponding sub-dimensions? How do these dimensions interact with one another?

2.3. Theory in practice: theoretical frameworks explained

Theoretical frameworks or management theories are important in explaining the determinants of ESG performance for several reasons. First, they may help to provide a structured approach for practitioners and researchers to organize and understand complex phenomena, such as ESG performance. Secondly, they can facilitate companies predict and address ESG risks and opportunities more effectively, helping them in the decision-making processes. Finally, theoretical frameworks can enhance the credibility of research and analysis of ESG performance, by establishing a shared language among researchers and practitioners.

The most common relevant theoretical frameworks for understanding ESG performance include stakeholder theory, agency theory, institutional theory, and resource-based theory. Stakeholder theory has been central for the topic of CSR since its creation (Garcia et al., 2017). Freeman and McVea (2000) argue that companies should make decisions that are in line with the interest of groups or individuals who can be affected by the activities of the company.

Contrary to this approach, agency theory (Jensen and Meckling, 1976) emphasizes the alignment of the agent with the interests of the principal, which takes the form of shareholder value creation. In a profit-driven vision of governance, the main goal of managers should be to increase profits for shareholders and to bring value to the company (Friedman, 1970), "with the organization of the board of directors and the regulation of transparency protocols and executive remuneration being defined toward this end" (Cassely et al., 2021, p.918).

Indeed, agency theory emphasizes the board's control function, and prescribes in particular the independence of the board from management and leadership structure duality or separation of the functions of CEO and chairperson of the board (Hafsi and Turgut, 2013). Accordingly, institutional investors significantly influence strategic firm decisions through their voting power and superior skills in information acquisition and management monitoring (Alda, 2019).

Another theory that gives great importance to the role of the firm is the resource-based view, which was developed to investigate financial performance differences between companies (Barney, 1991); however, it can also be adapted to examine aspects of social performance (Short et al., 2015). Conversely, defenders of institutional theory postulate that external pressures – namely the societal and cultural environment – are the main firm drivers to determine strategic options, such as corporate sustainability in determining environmental protection (Galbreath, 2013). The theory postulates that firms, according to the pressures or influences they face at the macro-level (coercive, normative, or imitative isomorphism), finally adapt different strategies that define their degree of legitimacy (Cassely et al., 2021). Similarly, according to neo-institutional theory, firms in different countries adopt different CSR priorities, because cultural beliefs and socially accepted rules influence organizational actions (Ortas et al., 2015).

Hence, the key question is to understand whether and how these theories – typical of the management field – have been applied to ESG performance and what are their practical implications. Therefore, the third research question is:

> Which theoretical frameworks are employed by scholars to investigate the determinants of ESG performance, and how are they used in such exploration?

2.4. ESG performance: a common framework with different measures

At the company level, there is a growing tendency to adopt a stewardship approach, which considers the implementation of sustainability from a normative and long-term perspective (Chevrollier et al., 2019). As a result, new regulations have mushroomed, and research and management practices on the topic have subsequently grown (Garcia and Orsato, 2020). However, at the academic level, financial rather than ESG performance has been the dependent variable in most prior research at the intersection of sustainability and strategy (Husted and Filho, 2016). In less than five years, researchers have increasingly contributed to the performance literature, by expanding it to a broader set of sustainable outcomes. Nonetheless, it is important to note that there is no universally accepted framework for evaluating ESG performance. Instead, different organizations and industry groups use different measures or criteria to assess ESG performance. Most academic research uses scores of rating agencies as a proxy for sustainability performance, which normally place more emphasis on corporation's practices rather than on the results – because of the difficulty in measuring impacts (Crace and Gehman, 2022). Although Refinitiv[1] represents "the most common scores used proxy for corporate sustainability performance in literature" (Khaled et al., 2021), a wide variation of usage remains. Databases take different decisions on what they intend to measure, and they can also have different sources of information and methodologies for evaluating ESG performance, which can result in variations in the measures used to assess ESG performance. In KLD,[2] the governance dimension appears to lack a robust assessment of the dimensions considered "critical in the literature" (Galbreath, 2013), compared to its "evolution" MSCI, by giving more importance to the social dimension. In addition, MSCI STATS delineates the positive and negative indicators by separating "strengths" and "concerns", which is useful to better disaggregate the analysis. It is also one of the few ratings that does not use a materiality-based approach in which corporations are rated differently depending on their industry classification. By contrast, Sustainalytics uses different key performance indicators and weights depending on a company's primary industry, whereas Refinitiv uses a category benchmarking approach. Nonetheless, its methodology considers the materiality of each ESG indicator, which enables a particular industry to be analysed. In addition, its scores are based on a variety of indicators reflecting both disclosed policies and access to news and media and more objective metrics (Rees and Rodionova, 2015). The countereffect is that Refinitiv and Sustainalytics do not allow for "commensurated comparisons of company-level ESG performance across industries" (Crace and Gehman, 2022, p.9). CSRHub is one of the world's largest sustainability-related business intelligence databases. Its ratings can be considered relatively objective because they combine data both from the leading socially responsible investment analysis companies and nongovernmental organizations. This means that the ratings do not rely only on self-reported measures and are thus less likely to suffer from social desirability biases (Cruz et al., 2014). According to recent evidence, divergence in ESG ratings stems from a fundamental disagreement regarding the underlying data, not just a difference in

[1] Some papers used in this Review refer to Thomson Reuters Asset4, which has undergone several name changes: Refinitiv first and in 2023 rebranded as LSEG Data & Analytics.

[2] Kinder, Lydenberg, Domini and Co., Inc.

Table 2
Diverging characteristics among different ESG Data Providers.

	MSCI ESG	KLD Analytics	Refinitiv (Asset4)	Sustainalytics
Rating score	CCC to AAA	narrative-based approach to scoring	0-100 & D- to A+	0–100
History	1990	1988	2002	1992
Headquarter	NY, USA	Boston, USA	Toronto, Canada	Amsterdam, Netherlands
Scope	Assess companies' exposure to and management of ESG risks and opportunities	"Influence corporate behaviour toward a more just and sustainable world" (KLD, 2005)	ESG scores from Refinitiv are designed to measure relative ESG performance, commitment, and effectiveness	Measurement of a company's exposure to industry-specific material ESG risks and management of those risks.
Sources	Company disclosure + Media, NGOs, and Government databases + Macro data specialized dataset	self-disclosure	publicly reported data: Company websites, Company reports, NGO websites, Media and news, Stock exchange filings	Public disclosure, Media and news, NGO reports
N. Criteria	35		178	155
Key Issues	*Environmental* Climate change, natural capital, pollution & waste, environmental opportunities *Social* Human capital, product liability, stakeholder opposition, social opportunities *Governance* Corporate governance, corporate behaviour	*Social* Community, diversity, employee relations, human rights, product quality and safety *Environment* *Corporate Governance* No aggregate dimension	*Environmental* Resource use, emissions, innovation *Social* Workforce, human rights, community, product responsibility *Governance* Management, shareholders, CSR strategy ESG *controversies*	Factors change according to the industrial group to which a company belongs
Weights	The Key Issues are weighted according to impact and time horizon of the risk or opportunity. All companies are assessed for Governance.	method was consistent in terms of the metrics	Standard weighting for all the categories Environmental = 42.5%, Social 32.5%, Governance = 25% the weights remain the same across all industries.	See above
Materiality	ESG are combined and normalised relative to industry peers	Assessment were absolutes: issues of universal importance across industries with a focus on society, not corporation.	Unique ESG magnitude (materiality) weightings have been included	Industry-specific indicators.

classifications. On the whole this is true for all the providers, with the only exception of MSCI, whose scope represents the biggest contributor (68%) in explaining its divergence (Berg et al., 2022). In fact, it is important to understand the risks of academic papers that deal with ESG performance and how the usage of different databases can affect the accuracy and comparability of results. Table 2 (see below) - which is inspired by the approach by Billio et al. (2021) - gives an overview of the differences among four principal rating agencies: MSCI, KLD, Refinitiv and Sustainalytics. The framing that combines all previous research questions is thus: *can the role of the determinants vary according to the usage of different providers?*

3. Research methods

The SLR was developed in accordance with the PRISMA guidelines of the 2020 statement (Page et al., 2021) (Fig. 1) and the review paper by Sauer and Seuring (2023). Given the relatively recent emergence of this topic and the need for its integration within the mainstream financial and managerial paradigm, there has been a surge in original studies with narrow focus points. Consequently, a comprehensive overview of the determinants that influence ESG performance is lacking. A systematic review can fill this gap as it has the power to "answer research questions that are beyond the scope of individual empirical studies" (Sauer and Seuring, 2023, p.2), and thus identify research gaps and formulate future research inquiries.

First, we started with a search using SCOPUS and Web of Science (WOS) databases, focusing on peer-reviewed academic journal papers written in English and published up to September 15, 2023. The identification process began with a quest for a general exploratory algorithm to screen for articles on the internal and external determinants of ESG performance. Fourteen trials were carried out for SCOPUS as well as WOS, and the final decision was based on the appropriate number of papers found.

The algorithm focused on ESG performance for both databases, but in SCOPUS index terms were used. The main goal of index terms is to improve the accuracy and efficiency of searches, by providing a standardized vocabulary that enables users to retrieve relevant articles more easily. Sustainable Finance was also used to include papers that dealt with the policies that reflect broader debates on the role of finance in society (Ahlström and Monciardini, 2022). 'Sustainable finance' is an umbrella term for a variety of mostly interchangeable terms: social finance; ethical-sustainable investment; socially responsible investment; sustainable responsible investment (Rizzi et al., 2018). Sustainable finance also involves the first idea of ethical investment: the investment should adhere to the same ethical principles as the investor (Drempetic et al., 2020). Because the research is based on the assumption of sustainable finance as a "virtue-ethical approach" and intergenerational justice as an aim of sustainable finance, we decided to include the term "ethical" in our algorithm (Soppe, 2004). Environmental, Social and Governance Corporate Performance were also included as singular pillars in the algorithm.

Hence, the algorithms used were.

1) SCOPUS: Index terms ("Sustainable Finance" OR "ESG Performance" OR "ESG Indicator*" OR "Green Investing" OR "Corporate Environmental Performance" OR "Corporate Social Performance" OR "Corporate Ethical Governance Performance *") OR TITLE-ABS-KEY ("Sustainable Finance" OR "ESG Performance" OR "ESG Indicator*" OR "Green Investing" OR "Corporate Environmental Performance" OR "Corporate Social Performance" OR "Corporate Ethical Governance Performance*") AND ("Firm*" OR "Compan*" OR "Business")
2) WOS: ("Sustainable Finance" OR "ESG Performance" OR "ESG Indicator*" OR "Green Investing" OR "Corporate Environmental Performance" OR "Corporate Social Performance" OR "Corporate Ethical Governance Performance*") AND ("Firm*" OR "Compan*" OR "Business")

The two algorithms from SCOPUS and WOS returned 1763 and 1834 papers respectively.

After removing duplicate papers (1205), we proceeded with second

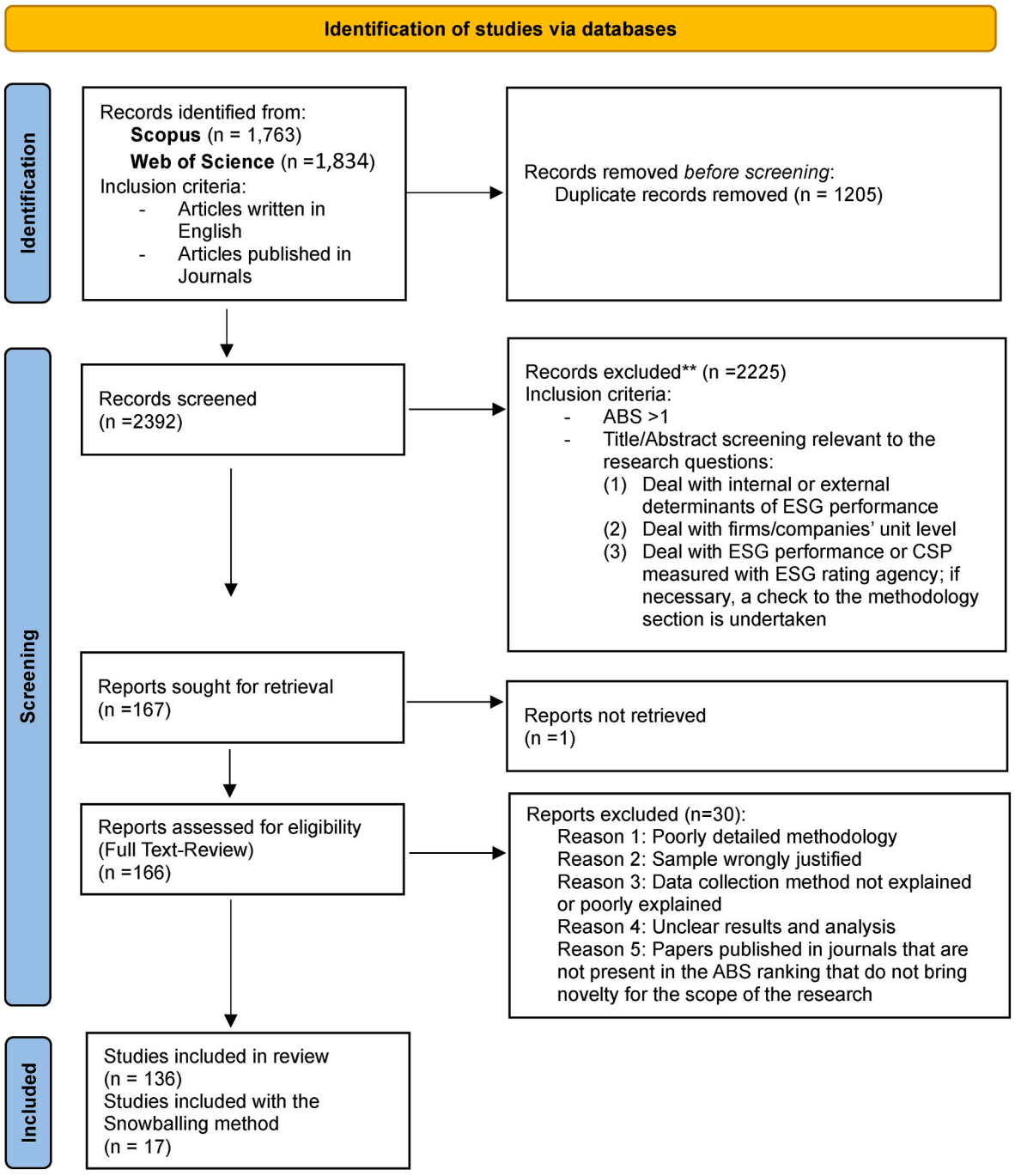

Fig. 1. PRISMA flow diagram modified from Page et al. (2021).

phase: screening of the 2392 papers selected.

This involved two major phases: the screening of the titles or abstract and the assessment of the full texts. First, we included the papers published in journals with the Chartered Association of Business Schools (ABS) journal ranking >1, which is used as a proxy for minimum quality level (Fig. 2 – for further details Appendix A). We also included papers published in journals that were not ranked by ABS, to avoid selection bias.

We then proceeded with the title/abstract screening of the selected papers to evaluate their relevance to the research questions of this study. Inclusion criteria were aimed at identifying those papers that gave relevance to ESG performance and its internal or external determinants and that dealt with the company unit level. We therefore included papers that explicitly discussed the dynamics of the determinants of the ESG heterogeneity (Crace and Gehman, 2022), papers that had a more specific focus on the functionality of government policies (Fransen, 2013), and on internal effects such as board diversity (Hafsi and Turgut, 2013). In addition, articles were included that investigated which factors influenced environmental value creation (Arminen et al., 2017), which verified whether or not theory predictions were true (Mallin et al., 2013). We also included papers that referred to CSP although using scores of an ESG rating agency. When this information was not available in the abstract, the methodology section of the paper was checked. This thus yielded a total of 167 records, of which only one was not retrieved.

Finally, we undertook the Full Text Review with specific focus on the methods, results, and discussion and excluding those paper that did not add any value to the study's research questions. Attention was given to the papers published in journals that are not present in the ABS ranking.

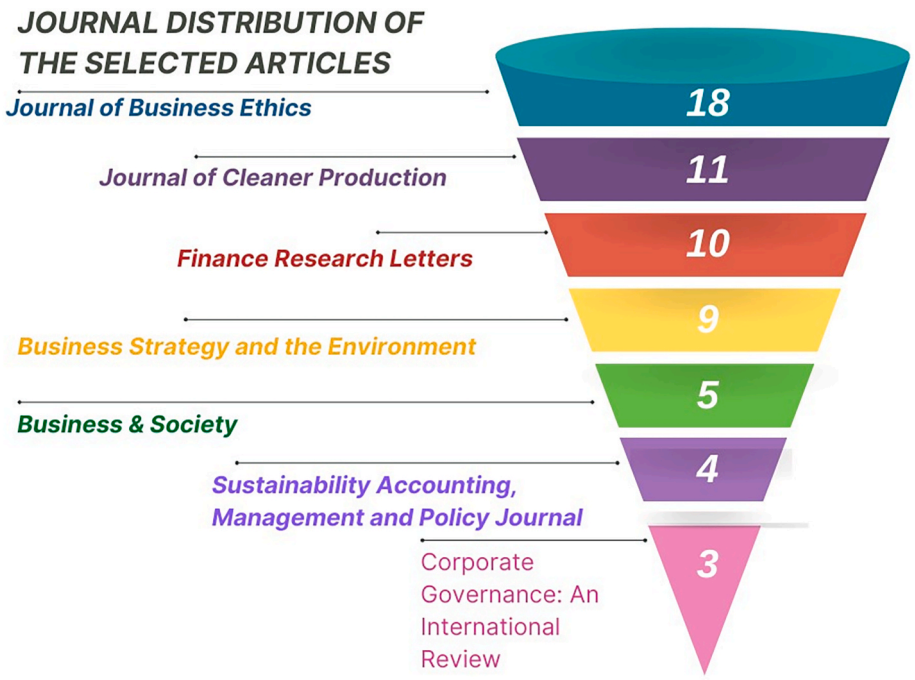

Fig. 2. Journal distribution of the selected articles.

We included papers that presented different topics from the previous selected articles, such as the impact of the Islamic label (Qoyum et al., 2022), or that extended the exploration of other topics that needed further analysis (Castillo-Merino and Rodríguez-Pérez, 2021). The final number was 136 papers, to which 17 articles were added using a snowballing[3] procedure. We then proceeded with the content analysis.

4. Findings

The findings of the SLR are divided into four sub-sections. The first section focuses on the internal determinants that affect ESG performance, which consist of firm characteristics, financial performance, corporate governance and CEO attributes to firm strategy and family firms. In the second section, we describe the findings concerning the interactions between the external determinants - expressed by country governance, regional regulatory frameworks, industry, economic development, and crises – and the ESG performance. To further explore the strategic relevance of each determinant, the third section focuses on the differences that characterise each pillar and when possible, the division into sub-dimensions and between strengths/concerns. This division of the analysis, rather than separating the dynamics, provides proof of the interdependence of ESG pillars as well as further evidence of the mutual dependence of the determinants (see Fig. 4 for a comprehensive view of the findings). The last section looks at the insights that different theoretical frameworks provide when explaining how companies respond to stakeholder pressures and external norms and how they manage internal resources and corporate governance structures to increase their ESG performance.

4.1. Internal determinants on ESG performance

The SLR revealed that most of the literature demonstrated that the scores increase with *firm size* (whether measured by total assets or number of employees), which is determined by the data availability and resources for providing ESG data and their exposure to society's pressures (Drempetic et al., 2020). The second set of findings suggests that firm effects represented strong determinants in explaining ESG performance (Table 3). Together with corporate governance effects – firm effects were the most debated factors in academic papers on the ESG variance of firms. Our study found a shared agreement that over time, the *nonfinancial internal effects* – which comprise resources, mindsets, attributes, actions – are responsible for the largest proportion of variance in net ESG. Regarding other internal determinants, the high participation of women on boards showed a positive effect on ESG-performance sensitivity and is one of the strongest predictors of ESG performance. Board racial diversity was found to be positively associated with ESG performance (Wong, 2023), along with the sub-dimensions of community, environment, and diversity, suggesting that increasing minority representation on a board helps "enhance a firm's legitimacy in the eyes of institutional stakeholders" (Zhang, 2012). In addition, increasing nationality and educational diversity showed a positive impact on social performance (Harjoto et al., 2019). The results also demonstrated a general agreement that, with *higher board diversity*, non-family-controlled firms have better CSR performance than family-controlled firms (Beji and Loukil, 2021; Ari and Youkyoung, 2018). Strategic orientations based on stewardship (Chevrollier et al., 2019) and the emulation of just organizations (Gerde, 2001) through the lens of "theory of Justice" (Rawls, 1971), internalization activities, mergers & acquisitions (M&A) and investment in research and development (hereinafter R&D) and technological innovations all showed a positive influence on ESG performance. Our results also proved that each kind of sustainability governance - collaborative, in-house, outsourced - has a positive impact on ESG performance (Husted and Filho, 2016). Companies can also decide to focus on the individual ESG factors or ESG controversies, which have a positive and negative effect respectively (Rajesh and Rajendran, 2020). In general, the CSR strategy scores are the "significant predictors of ESG performance scores of firms" (Rajesh et al., 2022). Other explicit sustainable governance strategies include stakeholder orientation (Mallin et al., 2013), sustainable supply chain management (Das, 2023), issuance of green bonds (Chen et al., 2023; Zheng et al., 2023), the presence

[3] Snowballing methodology for paper selection involves expanding the list of papers by examining references, citation searches, and assessing relevance to systematically identify relevant research papers on a specific topic.

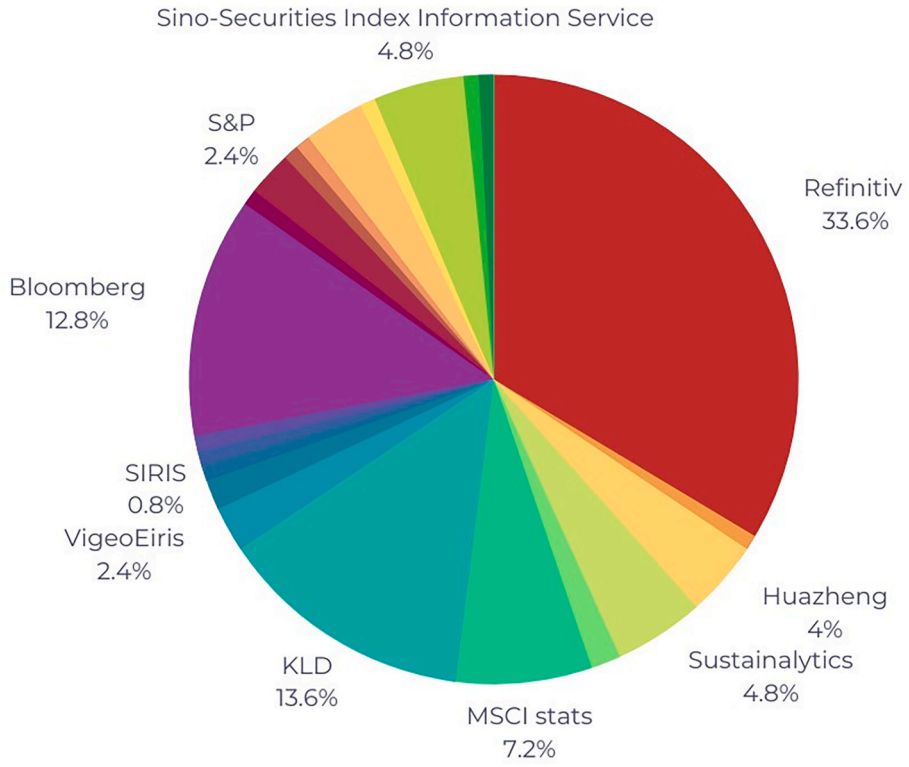

Fig. 3. Distribution of Providers used among the Selected Articles.

of environmental management systems (EMS) (Ronalter et al., 2022) or CSR/Sustainability Committees, whose establishment demonstrated the best sustainability governance in triggering composite ESG (Shahbaz et al., 2020; Mallin and Michelon, 2011; Govindan et al., 2021; Baraibar-Diez and D. Odriozola, 2019).

4.1.1. Variance in the impact of financial performance, diversity of boards, and cross-listing explained: the consequences of using different databases to measure ESG performance

Our findings also showed discrepancies regarding the effects of *financial performance*, diversity of boards, cross-listing, the activities of the boards and the investor role in determining ESG performance. Our first interpretation is that scholars' different use of providers available on the market to measure ESG performance (Fig. 3) leads to the different impacts of financial performance, board diversity, and cross-listing. While some studies have demonstrated the positive impact of profitability on ESG performance (Khaled et al., 2021), others have shown its secondary role compared to country effects (Arminen et al., 2017), or even a trade-off between financial and ESG performance (Garcia--Blandon et al., 2019). In fact, providers that place greater emphasis on governance factors in their scope – such as MSCI - may be more likely to find a positive relationship between financial performance and ESG performance, as effective governance practices can contribute to both. Regarding the analysis of *board diversity*, our study was able to extensively analyse the role of ESG performance indicators given by the different providers, thanks to the numerous publications on the topic. We not only compared similar papers that used different methodologies to calculate ESG performance, but we were also able to explore a more historical review of the evolution of the databases over the last decade, determining whether corporate governance has developed its influence on ESG performance over time. Our findings demonstrated that the importance of board independence has however increased over the last few years, most likely due to the providers' shift in priorities from the social (typical of KLD) to governance and environmental pillars, which have strengthened the positive relationship between the composite ESG score and board independence.[4]

Also, *cross-listing* revealed contrasting results. According to Del Bosco and Misani (2016), cross-listing is only positively associated with the environmental and social performance of a firm. In addition, when the degree of investor protection of the stock exchange in which a firm cross-lists its shares is high, a cross-listed firm earns lower environmental and social scores than firms that cross-list in countries with a low level of investor protection. Conversely, Cai et al. (2016) demonstrated that ESG performance is higher among companies that have traded on the American Depository Receipt (ADR), which is used as an indicator of cross-listing in the United States, a country with a very strong regime in investor protection. The characteristics of the governance dimension of MSCI and Refinitiv, used by Cai et al. (2016) and Del Bosco and Misani (2016) highlight the different approaches to defining and measuring corporate governance factors. In fact, MSCI is famous for placing more emphasis on governance factors, and its approach is more focused on internal governance structures and processes. On the other hand, Refinitiv takes a broader view which includes the company's impact on stakeholders beyond just its management. Results thus vary depending on whether governance is intended to ensure that a company is being run in the best interests of its stakeholders or when is more directly related to financial performance and regulatory compliance.

4.1.2. Variance in the impact of board activities and the role of investors explained: the intimate relationship between internal dynamics and countries' legal origin

Our second argument is that the roles of the *activities of the board* and investors vary among countries. Indeed, corporate governance structures are important to safeguard minority shareholders and other stakeholders' interests in jurisdictions where the shareholders' view prevails (common-law countries) (Castillo-Merino and Rodríguez-Pérez,

[4] In the graphic Refinitiv percentage also includes Thomson/Reuters and Datastream. Complete information is to be retrieved in Appendix B.

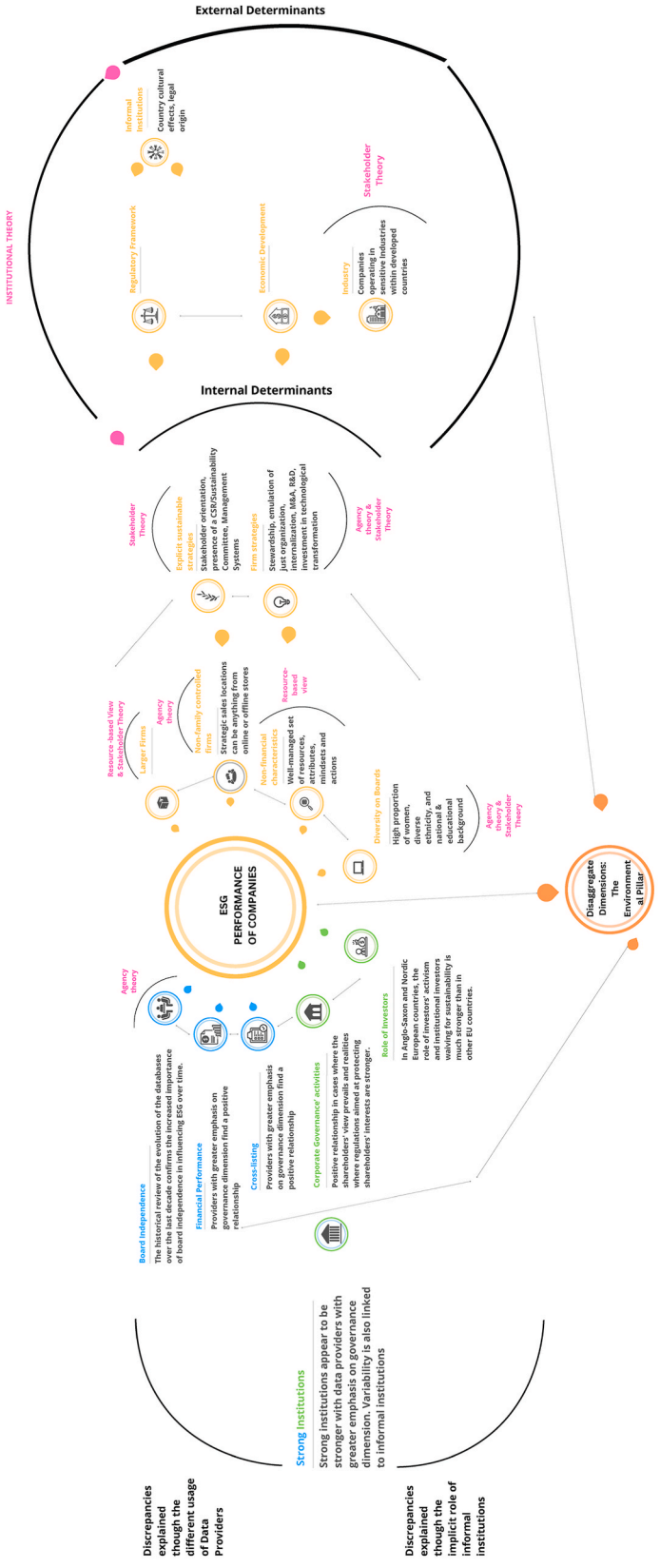

Fig. 4. Conceptual framework of structural relationship of the findings.

Table 3
Internal determinants on ESG performance.

Categories	Subcategories	Evidence	Countries	References
Firm Strategy	**ESG Reporting & Disclosure**	Quantity and quality of ESG information reporting	Sweden	Arvidsson & Dumay (2022)
		integrated reporting	International sample; South Africa	Mervelskemper and Streit (2017); Maniora (2015); Mans-Kemp and van der Lugt (2020)
	Strategic orientation	Stewardship	Developed countries	Chevrollier et al. (2019)
		Prospector strategy orientation	ASEAN countries	Setiarini et al. (2023
		Emulation of a just organization	International sample	Gerde (2001)
	–	Cross-listing	36 countries; developed & emerging	Cai et al. (2016); Del Bosco and Misani (2016)
	–	Firm internationalization	USA & 43 subsidiaries countries	Attig et al. (2016)
	–	Capital Market Opening	China	Deng et al. (2022)
	Technology & competition	R&D expenses	36 Countries	Cai et al. (2016)
	–	Technology	Developed countries; Chinax2	Graafland and Smid (2015); Meng et al. (2022); Lu et al. (2023)
	–	Digital Finance	China	Fang et al. (2023); Mu et al. (2023); Li and Pang (2023); Wang et al. (2023); Ren et al. (2023)
	Sustainability Governance of the Firm	Collaboratives, in-house, outsourced	Developed countries	Husted and Filho (2016)
		binding singular ESG scores & ESG controversies; CSR strategy score; ESG proportional and pillar mix efficiencies, ESG mindset	International samplex2; developed countries; China	Rajesh and Rajendran (2020); Sheehan et al. (2023); Rajesh et al. (2022); Cheng et al. (2023)
		Green bond issuance	China	Chen et al. (2023); Zheng et al. (2023);
		CSR committee presence and characteristics	USA; International sample x3; developed countries; International sample (Asian and Middle East countries excluded); Thailand; Italy	Mallin and Michelon (2011); Shahbaz et al. (2020); Govindan et al. (2021); Lozano and Martinez-Ferrero (2022); Baraibar-Diez and D. Odriozola (2019); Eberhardt-Toth (2016); Suttipun & Dechthanabodin (2022);
		Management Systems	Europe, East Asia, and North America; Germany	Ronalter et al. (2022); Gebhardt et al. (2023)
		Stakeholder orientation	USA	Brower & Mahajan (2013); Mallin and Michelon (2011); Brower and Rowe (2017)
		Supply chain	International sample	Das (2023).
	M&A	–	41 countries; EU; USA	Barros et al. (2021); Tampakoudis and Anagnostopoulou (2020); Houston and Shan (2022)
Firm characteristics	**Non-financial characteristics**	Structure, culture, reputation, knowledge; decisions, attributes; actions; resources; assets, and mindsets; human resources and intellectual capital	USAx2; developed countries; international sample; Southeast Asia countries	Crace and Gehman (2022); Short et al. (2015); Orlitzky et al. (2017); Rothenberg et al. (2017); Lestari and Adhariani (2022)
		Size	25 emerging countries; 36 countries; developed countries;	Khaled et al. (2021); Cai et al. (2016); Drempetic et al. (2020);
	Financial characteristics	Profitability (ROA, free cash flow, market capitalization, sales, slack resource, liabilities & return to assets), financial leverage, Systematic risk index	25 emerging countries; international samplex2; 52 countries; BRICS; 36 countries; developed countries; USA;	Khaled et al. (2021); Garcia and Orsato (2020); Zhao and Murrell (2022); Shahbaz et al. (2020); Arminen et al. (2017); Garcia et al. (2017); Cai et al. (2016); Garcia-Blandon et al. (2019); Choi and Lee (2018)
		financial performance shortfalls	27 countries (developed and emerging countries)	DasGupta (2021)
		Financial risk	International sample (mainly developed)	Chollet and Sandwidi (2018)
		financial constraints and financial distress risk	USA	Chan et al. (2016)
	Firm's organizational visibility	Slack visibility and visibility to multiple stakeholders	International sample: mainly USA	Chiu and Sharfman (2011)
CEO features	**Individual attributes**	Observable characteristics	USAx2; developed countries; Chinax2	Crace and Gehman (2022); Manner (2010); Garcia-Blandon et al. (2019); Huang et al. (2023); Wang et al. (2023);
		Family CEO	South Korea	Ari and Youkyoung (2018)
		Unobservable characteristics	USA	Kang (2017)
		Perception of CSR	Denmark	Pedersen & Neergaard (2009)
		Decision-making	USA	Wong et al. (2011)
	CEO Compensation		USA; international sample	Kang (2017); Hart et al. (2015); Manner (2010); Jang et al. (2022); Cohen et al. (2023);
Corporate Governance	**Board diversity**	Diversity of boards	Francex2; 20 emerging countries; International samplex5; USA; 32 countries;	Beji and Loukil (2021); Crifo et al. (2018); Disli et al. (2022); Hafsi and Turgut (2013); Zhang (2012); Shahbaz et al. (2020); Govindan et al. (2021); Lozano & Martinez-Ferrero (2022); Mallin and Michelon (2011); Lewellyn and Muller-Kahle (2023);

(*continued on next page*)

Table 3 (*continued*)

Categories	Subcategories	Evidence	Countries	References
		Diversity on board of directors	France; International samplex5; 20 emerging countries; USAx3; Italyx2; EU; Malaysia; 32 countries	Beji and Loukil (2021); Arayssi et al. (2016); Zhang (2012); Shahbaz et al. (2020); Govindan et al. (2021); Lozano and Martinez-Ferrero (2022); Disli et al. (2022); Mallin and Michelon (2011); Harjoto et al. (2019); Yorke et al. (2023); Cambrea et al. (2023); Słomka-Gołębiowska et al. (2023); Nerantzidis et al. (2022); Wong (2023); Lewellyn and Muller-Kahle (2023)
	Board activity	Meetings	20 emerging countries; International sample;	Disli et al. (2022); Shahbaz et al. (2020);
		board network centrality	UK	Harjoto and Wang (2020)
		Board Monitoring & competence	France; USAx2; international sample	Nekhili et al. (2021); Mallin et al. (2013); Mallin and Michelon (2011); Castillo-Merino and Rodríguez-Pérez (2021)
Audit Committees			EU; USA	Pozzoli et al. (2022); Yorke et al. (2023);
Directors' and officers' liability			China	Xu and Zhao (2022); Tang et al. (2023);
Family Firms			France; USA; South Korea; 25 countries; developed countries	Beji and Loukil (2021); Kashmiri & Mahajan (2014); Ari and Youkyoung (2018); Labelle et al. (2018); Rees and Rodionova (2015)
Investors' relationship	**investors**		Chinax3; International samplex2; France; Japan; EU;	Huang et al. (2022); Wang et al. (2023); Barko et al. (2022); Tian et al. (2023); Govindan et al. (2021); Crifo et al. (2018); Vuong and Suzuki (2021); Fasan et al. (2023);
	Institutional investors	social responsible (SR) pension funds	UK; developed countriesx2; Nordic countries; USA&UK; USA; EU; Chinax5	Alda (2019); Eccles and Klimenko (2019); Fard et al. (2022); Semenova and Hassel (2019); James and Gifford (2010); Houston and Shan (2022); Gangi and Varrone (2018); Wang et al. (2023); Jiang et al. (2022); Peng et al. (2023); Han (2022); Liu et al. (2022)

2021). In civil law, regulations aimed at protecting stakeholders' interests are more determinant (Castillo-Merino and Rodríguez-Pérez, 2021).

Concerning *investors*, their role in Anglo-Saxon countries is as fundamental as in Japanese companies since they tend to be more active in their CSR strategies when firm's investors expose a negative outlook (Vuong and Suzuki, 2021). Overall, the engagement of activist investors seems most beneficial for firms with ex-ante low ESG performance, suggesting that these ethical investors play an important role in assisting firms in understanding how they can improve outcomes for all their stakeholders (Barko et al., 2022). Studies on institutional investors, carried out by Anglo-Saxon and Nordic countries, Japan, and most recently China (Liu et al., 2022), have affirmed that "companies must improve engagement with institutional shareholders" (Eccles and Klimenko, 2019). Pension funds, as powerful institutional shareholders, despite detaining limited influential capacity, are capable of modifying ESG firm practices (Alda, 2019), and firms that borrow from banks with relatively better ESG profiles are more likely to improve their own ESG performance over time (Houston and Shan, 2022). In China, SRI mutual funds enhance the ESG performance of the companies in which they invest (Peng et al., 2023). The landscape of the role of investors is different in the EU, particularly in French-civil law countries. Companies selected by the European socially responsible funds (SFRs) exhibit worse social performance than companies selected by conventional funds, especially for large and medium-sized companies and manufacturing and financial sectors (Gangi and Varrone, 2018). In addition, contrary to the cases of the United States, United Kingdom, and Japan, in France corporate sustainability appears negatively related to investors' activist engagement (Crifo et al., 2018).

4.1.3. CEO and digital finance: limited geography hampers generalization

At last, our findings on the significant role of the observable and unobservable features of CEOs in shaping companies' sustainable strategies and ESG performance, cannot be generalised outside the borders of the United States or most recently, China (Huang et al., 2023; Wang et al., 2023, C, D, F). The sole exception emerges from a recent study conducted by Cohen et al. (2023). By employing an international sample of publicly traded companies, they assert that the implementation of ESG pay coincides with enhancements in pivotal ESG results. However, it is important to note that limitations of the current body of research still hinder the establishment of definitive generalizations. Similar conclusions can be made regarding digital finance, which is undergoing a rapid boom. The positive impact of digital technological transformations (Lu et al., 2023) and improvements in the financial sector regarding ESG performance (Wang et al., 2023; Li and Pang, 2023), have been recently addressed. Although the literature has shown the effects of digital finance being more pronounced in non-state-owned firms, small-sized firms, firms with lower levels of marketization (Mu et al., 2023), and non-politically connected firms and those that are located in regions with high quality institutions (Fang et al., 2023), the geographical area is limited to China, which makes any generalization hard to prove.

4.1.4. ESG reporting and performance: a predictor or not?

ESG reporting/disclosure represents the key bridge between internal and external determinants. The literature has demonstrated that reporting firms develop significantly higher values of ESG performance, especially for the environmental and social pillar (Mervelskemper and Streit, 2017) and when subject to mandatory reporting requirements (Graafland and Smid, 2015). However, the continuous quality improvement in ESG reporting has not been followed by a substantial improvement in the implementation. According to Arvidsson and Dumay (2022), the EU Directive on non-financial and diversity reporting (2014/94/EU), with its regulated disclosure requirements, has not, in the short term, improved performance and thus, "any future developments in ESG reporting will not greatly enhance ESG performance". However, this evidence is limited to Sweden, where companies already tend to perform well in ESG ratings and reporting. It might therefore be interesting to investigate whether these findings apply to other countries or more generally whether the development of the EU

sustainable finance agenda has been enhancing ESG performance or whether instead, it has been pushing the negative impact on the ESG rating industry (Ahlström and Monciardini, 2022).

4.2. External determinants on ESG performance

In general, our findings demonstrated that although global and regional efforts have been fulfilled, *national differences* still explain most of the ESG variance (see Table 4). In fact, the adoption of voluntary CSR initiatives, such as United Nations Global Compact (UNGC) by Spain, France, and Japan, may put companies' ESG performance on the same level. However, their variance depends on countries' institutional and social schemes (Ortas et al., 2015). Although the level of *economic development* is positively related with overall ESG performance (Foo Nin et al., 2012; Cai et al., 2016), and we can state that generally there is no significant mean difference in the ESG of the developed economies (Rajesh et al., 2022), companies still present differences that can be better explained by country effects. For instance, although *macroeconomic shocks* and conditions may be a source of variation in ESG performance as firms reallocate resources away from ESG investments to survive under challenging circumstances (Crace and Gehman, 2022; Umar et al., 2020), events such as the 2008 economic crisis or the Covid-19 pandemic, have had different effects on countries. Liberal market economies (LMEs) globally recorded significant ESG underperformance throughout the four-year crisis and post-crisis periods, while coordinated market economies (CMEs) generally recorded significant ESG over-performance (Cassely et al., 2021). Additionally, the COVID-19 pandemic had a favourable and significant impact on ESG performance, indicating that it is critical for businesses to adhere to ethical and socially responsible behaviour when facing crises. Interestingly, the pandemic had different impacts on countries. In emerging markets, companies performed better in terms of the environment than companies in developed markets, whereas developed markets place more emphasis on social performance (Al Amosh and Khatib, 2023).

4.2.1. Country governance: institutions and culture

By country effects not only are we referring to *formal structures* such as the institutional quality of a country (Arminen et al., 2017) and the regulatory framework, but also to informal institutions, legal origin, cultural elements and even religion (Qoyum et al., 2022). Informal institutions are not only fundamental per se, but they also provide important elements for the analysis for complex dynamics. For instance,

Table 4
External determinants on ESG performance.

Categories	Subcategories	Evidence	Countries	References
Regulatory Framework	**EU Regulations and Directives**		Sweden; EU;	Arvidsson & Dumay (2022); Ahlström and Monciardini (2022)
	Global Initiatives	United Nations Global Compact (UNGC)	Spain, France, Japan	Ortas et al. (2015)
	Country Legislations	The Grenelle II law	France	Beji and Loukil (2021)
		Mandatory reporting requirements	Developed countries	Graafland and Smid (2015)
		Government Environmental Regulation	China	Yan et al. (2023); Lu and Cheng (2023); Zhu et al. (2023); Li & Li (2022); Shu and Tan (2023); Wang et al. (2022); Chen et al. (2022); He et al. (2023); Xue et al. (2023)
Country/ Regional Governance	**Formal Institutions**	Democracy, political stability and rights, civil liberties and regulatory and institutional quality, educational system, corruption, political turnover	30 countries; USAx2; 11 countries; 36 Countries; 52 countries; 21 developed countries; Chinax3; emerging markets; 32 countries	Mooneeapen et al. (2022); Crace and Gehman (2022); Attig et al. (2016); Umar et al. (2020); Cai et al. (2016); Arminen et al. (2017); Orlitzky et al. (2017); Qi et al. (2022); Huang et al. (2023): Yang et al. (2023); Zhang et al. (2023); Xue et al. (2023); Venugopal et al. (2023); Lewellyn and Muller-Kahle (2023);
	Informal Institutions	Country cultural background: legal origin and traditions, religion, cultural beliefs	USA; 25 countries; 52 countries; 36 countries; 3 countries; 2 countries; 64 countries; 49 countries; International samplex2; 32 countries	Crace and Gehman (2022); Labelle et al. (2018); Arminen et al. (2017); Cai et al. (2016); Ortas et al. (2015); Qoyum et al. (2022); Castillo-Merino and Rodríguez-Pérez (2021); Foo Nin et al. (2012); Liang and Renneboog (2017); Lozano and Martinez-Ferrero (2022); Fu et al. (2022); Lewellyn and Muller-Kahle (2023)
	international contagion		International sample	Umar et al. (2020)
	Media monitoring	Media & NGOs	USA; developed countries; mainly USA & Japan	Lee and Riffe (2017); Graafland & Smid (2015); Fu (2023)
Industry	**Types**	Different sectors	USA; 21 developed countries; USA; International sample	Crace and Gehman (2022); Orlitzky et al. (2017); Short et al. (2015); Umar et al. (2020)
		Sensitive & high impact industries	International samplex2; BRICS countries; 52 countries; Australia	Garcia and Orsato (2020); Du and Jianfei (2023); Garcia et al. (2017); Arminen et al. (2017); Galbreath (2013)
	Industrial Visibility & sentiment	Industrial visibility & sentiment	International sample; Japan	Chiu and Sharfman (2011); Vuong and Suzuki (2021)
Period	**Temporal effects**	year	USAx2; 21 developed countries; Australia	Crace and Gehman (2022); Orlitzky et al. (2017); Short et al. (2015); Galbreath (2013)
	Macroeconomic shocks	2008 economic crisis	18 developed countries	Cassely et al. (2021)
	-	EU sovereign debt crisis, systemic Greek problems, covid pandemic	International sample	Umar et al. (2020); Al Amosh and Khatib (2023)
		Environmental uncertainty	China	Wang et al. (2023)
Economic development		GDP	52 countries; 49 countries; developed countries; international sample	Arminen, et al. (2017); Foo Nin et al. (2012); Rajesh et al. (2022); Lozano and Martinez-Ferrero (2022)
		The coefficient of Ln (income-per-capita)	36 Countries	Cai et al. (2016)
		Financial development	42 countries in Asia	Ng et al. (2020)

in the last two years, there has been a boom in studies on the contribution of environmental regulations and tax incentives (Zhu et al., 2023; He et al., 2023; Qiang et al., 2023) on the enhancement (Lu and Cheng, 2023; Wang et al., 2022; Wang et al., 2022, 2022; Li and Li, 2022) or restraint (Shu and Tan, 2023; Yan et al., 2023) of the ESG performance. Nonetheless, because the companies analysed in these studies are all Chinese, the outcomes are unlikely to be generalizable in other contexts.

A similar conclusion be made in the case of political stability, rights, and democracy, which have different roles in the literature. One reading could be that papers that had used MSCI as a rating are likely to demonstrate a stronger correlation between strong institutions and ESG performance (Attig et al., 2016; Cai, Pan and Statman, 2016; Umar et al., 2020).

The second interpretation is that informal institutions (Ortas et al., 2015), legal origin, *cultural elements* (Crace and Gehman, 2022; Arminen et al., 2017) and religion (Qoyum et al., 2022; Fu et al., 2022) represent the key drivers that shape attitudes and the modes in which companies respond to formal external pressures and induce different priorities in how to re-orient their internal resources. Legal origin is intended not only as a set of binding legislations that set the boundaries of companies' actions, but also as laws that shed light on the underlying cultural values and norms regarding how societies behave. The findings of this research showed that firms based in civil-law countries present higher ESG scores than companies located in common law countries (Castillo-Merino and Rodríguez-Pérez, 2021; Liang and Renneboog, 2017). In fact, civil-law countries tend to prioritize elements such as stakeholder orientation (Labelle et al., 2018), harmony, egalitarianism, autonomy (Cai et al., 2016), which all are proven important factors to improve ESG performance. In fact, among developed countries, European Countries tend to perform better than individualistic cultures – such as the United States (Foo Nin et al., 2012).

4.2.2. *Relevance of industry*

Our understanding of the *relevance of industry* takes its roots in the notion that providers may adjust their ESG assessments based on the specific risks and opportunities associated with each industry, while others may use a more standardized approach across all industries. When using MSCI, which does not use a materiality-based approach, industry has a significant impact on markets that adopt ESG criteria (Umar et al., 2020; Crace and Gehman, 2022).

Firms in sensitive sectors (with a high or medium impact) have better ESG performance (Arminen et al., 2017), especially for developed countries (Garcia and Orsato, 2020), while no significant association is found among emerging countries and the BRICS (Garcia et al., 2017). The only exception is represented by Australia, whose characteristics do not correspond to other developed countries (Rajesh et al., 2022), and in fact, impact industries in Australia do not reflect a stronger ESG performance (Galbreath, 2013).

A few studies exist concerning how industry is perceived by companies' external stakeholders and whether this perception affects the performance. From our analysis we know that industry visibility in the public eye is not significantly related to either dimension (Chiu and Sharfman, 2011), while the market sentiment impact on future ESG achievement is substantial and significant in low-sensitive industries (Vuong and Suzuki, 2021).

4.3. *ESG at the disaggregate level: the rise of industrial belonging and financial performance over environmental performance*

At the beginning of the paper, we highlighted the importance of drilling down the composite ESG to highlight how the importance of the determinants change over the sub dimensions (see Tables 5 and 6).

From the analysis, we discovered that internal determinants mostly affect the strengths (when the distinction is given by the provider), which means that firm's internationalization (Attig et al., 2016), non-financial characteristics (Crace and Gehman, 2022), board gender diversity (Zhang, 2012) and board nationality and educational diversity (Harjoto et al., 2019) are all important drivers for companies to promote

Table 5
Distribution of the difference influence of External Determinants on individual pillars & positive and negative indicators.

External Determinant	Environmental Criteria	Social Criteria	Governance Criteria	Strengths & concerns	Reference
Country Governance (formal institutions)	+		+ (Regulatory quality)		Mooneeapen et al. (2022)
	+				Qi et al. (2022)
Country Governance (Laws)	+				He et al. (2023);
Country Governance + economic development			+		Arminen et al. (2017)
Country governance (informal institutions)	+	+	+		Ortas et al. (2015)
	+				Foo Nin et al. (2012)
	+	+			Qoyum et al. (2022)
Industry	+	+ (Social concerns)		+ ESG *concerns* model.	Crace and Gehman (2022)
	+	+ (Employee dimension)			Arminen et al. (2017)
	+	+ (Local communities)			Orlitzky et al. (2017)
	+ (Environmental concerns)				Short et al. (2015)
(Sensitive industry)	+				Garcia et al. (2017)
(High impact)		+			Galbreath (2013)
Period (year)				+ ESG *strengths* model.	Crace and Gehman (2022)
		+ (Socially responsible supply-chain initiatives)			Orlitzky et al. (2017)
		+ (Local community)	–		Short et al. (2015)
			+		Galbreath (2013)
Period (economic crisis)	-(LMEs) + (CMEs)	-(LMEs) + (CMEs)	+ (CMEs)		Cassely et al. (2021)
(Covid-19 pandemic)	+ (Especially developing countries)	+ (Especially developed countries)	–		Al Amosh and Khatib (2023)

LMEs: Liberal Market Economies.
CMEs: Coordinated Market Economies.

Table 6
Distribution of the difference influence of Internal Determinants on individual pillars & positive and negative indicators.

Internal Determinant	Environmental Criteria	Social Criteria	Governance Criteria	Strengths & concerns	Reference
Firm Strategy (reporting)			–		Mervelskemper and Streit (2017)
Firm strategy (cross-listing)			–		Del Bosco & Misani (2016)
Firm strategy (internalization)	+	+ (Community, Diversity) -(Human rights)		+ ESG *strengths* model.	Attig et al. (2016)
Firm strategy (digitalization)		+	+		Fang et al. (2023)
Firm strategy (Management Systems)	+ (Waste reduction and resources consumption)	+ (Customer and stakeholder relationships)	+ (Internal communication and better manager involvement)		Ronalter et al. (2022)
(Sustainability Committee)		+			Govindan et al. (2021)
Firm characteristics (non-financial)		+		+ ESG *strengths* model.	Crace and Gehman (2022)
	+	+ (Local communities and employees)	+ (shareholder dimensions)		Orlitzky et al. (2017)
Firm characteristics (organizational visibility)		+			Chiu and Sharfman (2011)
Firm characteristics (financial)	+				Arminen et al. (2017)
	+	–	–		Garcia et al. (2017)
financial risk	+		+		Chollet and Sandwidi (2018)
financial distress	–	-(Community, product)			Chan et al. (2016)
CEO attributes				+ *both*	Crace and Gehman (2022)
Compensation				-(CEO stock ownership with *Concerns*) + (CEO stock options with *Strengths*).	Kang (2017)
Corporate Governance (board diversity)	+ (Board size, age diversity, foreign directors) + (Board independence)	+ (Board size, gender and age diversity, foreign directors)	+ (Board size, independent directors, gender, and age diversity) + (Board independence)		Beji and Loukil (2021) Disli et al. (2022)
				Strengths (CEO duality, gender diversity, board racial diversity) *Concerns* (CEO duality and independent directors)	Zhang (2012)
	+ (Board independence)	+ (Community influential directors, CSR committee, gender diversity, external directorships)			Mallin and Michelon (2011)
				board nationality and educational background with *Strengths*	Harjoto and Wang (2020)
			+ (Gender diversity)		Govindan et al. (2021)
Corporate Governance (Network centrality)		-(Information centrality)			Harjoto and Wang (2020)
Corporate Governance (employees)				-(HRM practices)	Rothenberg et al. (2017)
	+ (Employee-shareholder board representatives)	+ (Labour board representation)	+ (Employee-shareholder board representatives)		Nekhili et al. (2021)
Family Firms			–		Rees and Rodionova (2015)
Differences	*No statistically significant difference* (Environment)	*No statistically significant difference* (Community, customer satisfaction with product quality and safety, and employee relations).			Ari and Youkyoung (2018)
Investors' relationships - *pension funds*	+				Alda (2019)
- qualified foreign institutional investors		+ (Workforce diversity, product quality)	+		Han (2022)
investors' sentiment			–		Vuong and Suzuki (2021)

proactive voluntary sustainable actions to satisfy the interests of the broader group of stakeholders. CEOs' attributes matter for both strengths and concerns in all dimensions and the variance in ESG concerns model alone is largely explained by the industry (Crace and Gehman, 2022).

Regarding the social and governance pillars, the results mostly confirmed the findings for ESG aggregate: the positive impacts of management systems on internal communication, better manager involvement, customer, and stakeholder relationships (Ronalter et al., 2022); non-financial characteristics as a predominant factor for shareholder dimensions and for the social dimension (Crace and Gehman, 2022), and especially for local communities and employees (Orlitzky et al., 2017); the positive impact of board independence for the governance dimension (Disli et al., 2022); board gender diversity as a significant predictor for governance (Govindan et al., 2021) and the human rights sub-dimension (Beji and Loukil, 2021). The social pillar was found to be particularly influenced by firms' strategy and characteristics. More visibility from organizational slack results in higher levels of the social dimension (Chiu and Sharfman, 2011) and internationalization impacts positively on community, but negatively on human rights. Interestingly, the presence of a CSR/Sustainability Committee is positively associated with the social pillar (Govindan et al., 2021), and particularly on the community and human rights dimensions (Mallin and Michelon, 2011).

However, our final take on the different driver roles on the ESG at the *disaggregate level*, is that external determinants have assumed a far more fundamental role when considering only the environmental pillar. Although corporate governance is also affected by a country's regulatory quality (Mooneeapen et al., 2022) and economic development (Arminen et al., 2017), the environmental performance of companies varies the most between countries (Mooneeapen et al., 2022). This variance is a direct consequence of cultural differences: for instance, Japanese companies are influenced by Shintoist/Buddhist traditions, which mainly focus on the value of nature and the environment (Ortas et al., 2015). At the same time, companies have lower levels of environmental performance in countries where their citizens are more likely to tolerate inequalities (Foo Nin et al., 2012). Nonetheless, the biggest influence comes from the industry effects. Industry has proven to have the strongest external effect on the environment by several studies (Crace and Gehman, 2022; Arminen et al., 2017; Orlitzky et al., 2017; Short et al., 2015), even considering sensitive industries in emerging countries (Garcia et al., 2017).

Environmental performance is differentiated from the aggregate ESG not only in terms of the effect of external determinants, led by industry effects, but it also helps us to better understand the discrepancies in the results related to financial performance. What was missing from the analysis of ESG aggregate is that financial performance, not only has a potential influence on the governance dimension, but also has the strongest impact on corporate environmental performance (Arminen et al., 2017; Garcia et al., 2017). Furthermore, financial risk induces firms to invest more in environment and governance (Chollet and Sandwidi, 2018) in the same way that financial distress may stop firms from pursuing environmental activities (Chan et al., 2016).

4.4. The interdependence of the theories

Finally, the *theoretical perspectives* of stakeholder, institutional, agency and resource-based approaches have mostly been confirmed throughout the studies and our analysis expands the interdependence among the different theoretical frameworks (Table 7).

First, we investigated the capacity of the different theories to explain the results. Starting with the resource-based view, except for the role of human resources in Asian countries (Lestari and Adhariani, 2022), our research confirms that ESG performance depends on the resources it has at its disposal (Short et al., 2015). The organization of resources and capabilities in sustainability governance structures can improve ESG performance (Husted and Filho, 2016; Rothenberg et al., 2017). In

Table 7
Theoretical Frameworks used for External & Internal determinants.

Theory	Confirmation or Rejection	References
Legitimacy theory	*Confirmation*	Mooneeapen et al. (2022); Mallin and Michelon (2011)
	Extension	Khaled et al. (2021)
	Partially confirmed	Del Bosco and Misani (2016)
Stakeholder Theory	*Confirmation*	Beji and Loukil (2021); DasGupta (2021); Drempetic et al. (2020); Tampakoudis and Anagnostopoulou (2020); Eccles and Klimenko (2019); Harjoto et al. (2019); Eberhardt-Toth (2016); Arayssi et al. (2016); Brower & Mahajan (2013); Wong et al. (2011); Mallin and Michelon (2011); Shahbaz et al. (2020); Govindan et al. (2021); Rajesh et al. (2022); Qoyum et al. (2022); Ronalter et al. (2022); Castillo-Merino and Rodríguez-Pérez (2021); Baraibar-Diez and D. Odriozola (2019); Meng et al. (2022); Wang et al. (2023); Gebhardt et al. (2023); Nerantzidis et al. (2022); Wang et al. (2022); Chen et al. (2023); Das (2023).
	Extension	Orlitzky et al. (2017); Harjoto and Wang (2020); Khaled et al. (2021); Brower and Rowe (2017); Al Amosh and Khatib (2023)
	Partially confirmed	Cassely et al. (2021); Garcia et al. (2017); Alda (2019); Graafland and Smid (2015)
	Rejection	Nekhili et al. (2021); Gangi and Varrone (2018); Crifo et al. (2018)
Institutional Theory, Institutional difference hypothesis (IDH) & Neo-institutional theory	*Confirmation*	Beji and Loukil (2021); Garcia and Orsato (2020); Chiu and Sharfman (2011); Drempetic et al. (2020); Cassely et al. (2021); Ortas et al. (2015); Rajesh and Rajendran (2020); Graafland and Smid (2015); Chen et al. (2022); Gebhardt et al. (2023); Lewellyn and Muller-Kahle (2023); Das (2023).
	Extension	Khaled et al. (2021); Chen et al. (2023); Venugopal et al. (2023);
	Partially Confirmed	Galbreath (2013); Alda (2019)
	Rejection	Disli et al. (2022)
Upper echelon theory	*Confirmation*	Crace and Gehman (2022); Harjoto and Wang (2020); Wong et al. (2011); Manner (2010); Pedersen and Neergaard (2009); Wang et al. (2023);
	Extension	Chen et al. (2023)
	Partially confirmed	Beji and Loukil (2021)
Agency theory	*Confirmation*	Beji and Loukil (2021); Labelle et al. (2018); Rees and Rodionova (2015); Ari and Youkyoung (2018); Nekhili et al. (2021); Gangi and Varrone (2018); Kang (2017); Hafsi and Turgut (2013); Mallin and Michelon (2011);

(*continued on next page*)

Table 7 (*continued*)

Theory	Confirmation or Rejection	References
		Shahbaz et al. (2020); Govindan et al., (2021); Baraibar-Diez and D. Odriozola (2019); Meng et al. (2022); Suttipun and Dechthanabodin (2022); Pozzoli et al. (2022); Gebhardt et al. (2023); Nerantzidis et al. (2022); Wang et al. (2022); Yorke et al. (2023);
	Extension	Khaled et al. (2021);
	Partially confirmed	Cassely et al. (2021); Alda (2019); Zhang (2012); Crifo et al. (2018);
	Rejection	Arayssi et al. (2016); Mallin et al. (2013);
Resource-based view (RBV)	*Confirmation*	Garcia and Orsato (2020); Husted and Filho (2016); Short et al. (2015); Chiu and Sharfman (2011); Rothenberg et al. (2017); Setiarini et al. (2023)
	Partially confirmed	Beji and Loukil (2021)
	Rejection	Gangi and Varrone (2018); Lestari and Adhariani (2022)
Resource dependency theory	*Confirmation*	Disli et al. (2022); Mallin et al. (2013); Mallin and Michelon (2011); Cambrea et al. (2023); Peng et al. (2023); Yan et al. (2023); Nerantzidis et al. (2022); Yorke et al. (2023); Wong (2023);
	Partially confirmed	Beji and Loukil (2021); Hafsi and Turgut (2013); Zhang (2012); Lewellyn and Muller-Kahle (2023)
Glass Cliff theory	*Confirmation*	Beji and Loukil (2021)
Social Identity theory	*Partially confirmed*	Beji and Loukil (2021)
	Rejection	Nekhili et al. (2021)
	Extension	Huang et al., 2023
Dynamic Capabilities	*Confirmation*	Garcia and Orsato (2020)
Stewardship theory	*Confirmation*	Chevrollier et al. (2019); Das (2023).
	Rejection	Lestari and Adhariani (2022)
Socioemotional Wealth Approach (SEW)	*Rejection*	Labelle et al. (2018); Ari and Youkyoung (2018)
Financial theory	*Confirmation*	Chan et al. (2016)
	Rejection	Orlitzky et al. (2017)
Prospect Theory	*Confirmation*	DasGupta (2021)
Slack Resources Theory	*Confirmation*	Chollet and Sandwidi (2018); Choi and Lee (2018)
	Partially confirmed	Drempetic et al. (2020)
	Rejection	Zhao and Murrell (2022)
Social Capital Theory	*Extension*	Harjoto and Wang (2020)
Social Network Theory	*Extension*	Harjoto and Wang (2020)
Ecological modernization theory	*Confirmation*	Rajesh and Rajendran (2020)
Contingency theory	*Rejection*	Rajesh and Rajendran (2020)
Modern portfolio theory	*Confirmation*	Gangi and Varrone (2018)
	Rejection	Eccles and Klimenko (2019)
Intergroup contact theory	*Confirmation*	Harjoto et al. (2019)
Cognitive resource diversity perspective	*Confirmation*	Harjoto et al. (2019)
Social categorization theory	*Rejection*	Harjoto et al. (2019)
Similarity/attraction paradigm	*Rejection*	Harjoto et al. (2019)
Social Movement Theory	*Confirmation*	Semenova and Hassel (2019)
Good Management Theory	*Confirmation*	Chollet and Sandwidi (2018)
Managerial Opportunism Theory	*Rejection*	Choi and Lee (2018)
Behavioural Agency theory	*Partially confirmed*	Kang (2017)
Theory of Loss Aversion	*Confirmation*	Kang (2017)
Tournament Theory	*Rejection/ extension*	Hart et al. (2015)
Equity Theory	*Confirmation/ extension*	Hart et al. (2015)
Integrative complexity, a cognitive style	*Confirmation*	Wong et al. (2011)
Organization theory	*Rejection*	Mallin and Michelon (2011)
Theory of managerial discretion	*Confirmation*	Manner (2010)
Theory of Stakeholder Salience	*Confirmation*	James and Gifford (2010)
John Rawls' (1971) Theory of Justice	*Partially confirmed*	Gerde (2001)
Agenda-building theory	*Partially confirmed*	Lee and Riffe (2017)
Signaling (transmission) theory	*Confirmation*	Wang et al. (2023); Fu (2023)
Financial development theory	*Confirmation*	Li and Pang (2023)
Endogenous growth theory	*Confirmation*	Li and Pang (2023)
Critical Mass Theory	*Confirmation*	Nerantzidis et al. (2022)

addition, in the majority of cases, although limited to a sample of developed countries, highly educated directors are positively associated with all the ESG dimensions (Beji and Loukil, 2021).

Secondly, our study mostly confirms the assumptions of agency theory concerning corporate governance. The role of boards is to monitor managers and therefore, duality is negatively associated with ESG performance (Beji and Loukil, 2021), and independent board members can effectively control and monitor the actions of the agents, thus improving the board's monitoring (Govindan et al., 2021) and strengthening the relationship between digital transformation and a firm's ESG (Meng et al., 2022). In addition, gender diversity increases the attitudes of board members to control executive directors, with a positive impact on corporate outcomes (Nerantzidis et al., 2022). The theory also explains the role of stock options in promoting the long-term orientation of CEOs in their investment horizons (Kang, 2017) and the sustainability drawbacks for firms' family status (Labelle et al., 2018).

The stakeholder theory (Freeman R. E., 1984) is perhaps the most used framework, and it is used to explain several dynamics, including those of corporate governance, managerial perspectives, and CSR committee. The theory predicts business social welfare from promoting females to senior executive roles (Arayssi et al., 2016) and from improving the diversity of directors' nationality and educational background (Harjoto and Wang, 2020). In sum, independent, gender diverse, disciplined, and CSR-focused boards function in favour of both stakeholders and shareholders (Shahbaz et al., 2020; Govindan et al., 2021). Stakeholder theory can also explain the managerial perspectives of the stakeholders' view towards CSP and practices (Rajesh et al., 2022). When managers are adequately motivated, they are more likely to prioritize stakeholders and their needs (Wong et al., 2011; Mallin and Michelon, 2011) and invest in ESG initiatives (Castillo-Merino and Rodríguez-Pérez, 2021). In fact, a company's reputation among its many stakeholders is improved when it takes deliberate measures to improve ESG performance (DasGupta, 2021) and oriented towards firm's digital transformation (Meng et al., 2022; Brower and Mahajan, 2013). Fiduciary obligation has been found to be broken when ESG issues are not taken into account (Eccles and Klimenko, 2019), while the success of the presence of a CSR committee found in this paper responds directly to statements of the theory (Eberhardt-Toth, 2016; Baraibar-Diez and D. Odriozola, 2019). Stakeholder theory also explains the role of determinants such as the size of the firm – larger firms have higher ESG performance not only due to greater resources but also as a response to higher public pressure (Drempetic et al., 2020) – M&A (Tampakoudis

and Anagnostopoulou, 2020) and the implementation of management systems (Ronalter et al., 2022).

We also found evidence that stakeholder theory is capable of explaining the different determinants' impact on ESG performance. Depending on the stakeholder group considered, the relative importance of ESG determinants changes (Orlitzky et al., 2017), thus influencing the singular pillars at different levels (Brower and Rowe, 2017). For instance, to safeguard their reputation, businesses in sensitive industries are more careful to disclose their environmental performance (Garcia et al., 2017).

As a fourth step, we established that agency and stakeholder theory are intimately interconnected. Since "CSR engagement is a principal-agent relation between management and shareholders," the existence of a CSR committee acts as the link between stakeholder theory and agency theory (Baraibar-Diez and D. Odriozola, 2019). However, although corporate governance influences firm behaviour more than society, certain determinants cannot be entirely explained through stakeholder or agency theory, and institutional theory is needed. The theory provides a macro-level explanation for how CSR practices are convergent within the same capitalist paradigm (Cassely et al., 2021) and thus, businesses from various nations use various management techniques for sustainability (Ortas et al., 2015). Our study confirmed that the viability of businesses depends on society's acceptance of them (Drempetic et al., 2020), and institutional rules governing the transparency of sustainability will also have an impact on stakeholder responsiveness (Graafland and Smid, 2015). This is to say that certain incongruences can only be explained through institutional pressures. For instance, we saw that ESG poses a threat to a company's ability to survive during times of crisis within LME countries (Cassely et al., 2021), strategic corporate decisions are influenced by institutional investors in common-law countries and civil-law Nordic Countries (Alda, 2019), and EU SFR failed because investing in social performance is an agency problem (Gangi and Varrone, 2018) – thus proving the assumptions of agency theory. By contrast, the stakeholder theory's presumptions are demonstrated in CMEs, where ESG remained steady or even improved during and after a crisis (Cassely et al., 2021).

5. Discussion

Our analysis revealed that the majority of internal and external determinants can explain the heterogenous ESG performance between firms, therefore answering our first research question. Larger (Drempetic et al., 2020) and non-family-controlled firms (Beji and Loukil, 2021), with well-managed resources, and mindsets, attributes, actions, and with a high proportion of women and people from diverse ethnic & educational backgrounds represent the strongest predictors of ESG performance. These trends are stronger when the firm's strategies are also based on stewardship (Chevrollier et al., 2019) and on the emulation of just organization (Gerde, 2001) and when they are oriented towards internationalization, M&A and investment in R&D and technology. This especially holds true when they adopt explicit sustainable strategies, with a stakeholder orientation, and when there are CSR/sustainability committee or management systems in place.

Having established the importance of these mechanisms which are confirmed by most of the literature, we present the following propositions – which connect our findings on the discrepancies of results in the literature with possible future empirical studies. The propositions are numbered in line with the three research questions.

The majority of discrepancies in the literature are a direct consequence of the lack of standardisation among ESG measurement. Our findings demonstrate that the different usage by scholars of the data providers available to measure ESG performance influences the different impacts of financial performance, diversity of boards, and cross-listing. Uneven findings were also found for the role of democracy, political rights, and stability as a result of the different use of data providers as well as the lack of analysis regarding the input of cultural norms behind these formal institutions. Specifically, providers that place greater emphasis on governance factors may be more likely to find a positive relationship between financial performance (Khaled et al., 2021; Crace and Gehman, 2022), cross-listing (Cai et al., 2016) and strong institutions (Attig et al., 2016; Cai et al., 2016; Umar et al., 2020) with ESG performance. One could argue that when conducting research, academics should employ many ESG providers. Though generally accurate, using data from two sources that are not well correlated may result in a mixture that yields untrustworthy conclusions. For instance, if you serve EU customers, using MSCI data will lead to a classification of companies that simply do not fit a European view of a responsible company. Given that data providers are products of their unique space and time, future research on ESG performance should use more than one data provider that are well-correlated in their cultural scenario.

Proposition 1a. *An analysis of the determinants of ESG performance based on a combined use of two or more providers that are well correlated and rooted in the same geographical and cultural scenario, emerges as a prerequisite for avoiding oversimplification and non-exploration of complexity.*

Furthermore, the differences in the literature on the role of financial performance, cross-listing, and strong institutions could be further investigated under the lens of the recently published paper "Aggregate Confusion: The Divergence of ESG Ratings" (Berg et al., 2022). In other words, future research could focus on understanding whether the difference between providers is due to their scope, measurement, or weight.

Proposition 1b. *Future studies could investigate whether the observed discrepancies about the impact of financial performance, cross-listing in countries with a high level of investor protection, democracy, civil/political rights, and stability are linked to the diversity in scope, measurement, or weight of the rating agencies.*

Our findings suggest that the longitudinal analysis of the providers' shifts in priorities from the social to governance and environmental pillars gave increasing importance to the role of board independence. Although it is a trend with large consensus in the literature, our analysis showed that some studies refer to board independence as non-executive directors (Shahbaz et al., 2020; Zhang, 2012), limiting the accuracy of the findings. Hence, it is plausible that future investigations could examine whether this pattern is replicated across all instances where board independence is delineated.

Proposition 1c. *Having established the increased importance of board independence in influencing ESG performance over time, new efforts should be made to understand whether results change when considering independent boards as non-executive directors.*

Concerning the external determinants, our findings revealed that, although there have been efforts to direct global initiatives such as the United Nations Global Compact (UNGC) (Ortas et al., 2015) and regional regulatory frameworks (Ahlström and Monciardini, 2022) towards the role of the private sector on sustainable development, country effects still explain most of the variance of ESG performance among firms. In cases where the literature is limited in geographical scope, as in the case of CEO and digital finance, the results are impossible to generalize outside those boundaries. In addition, economic development (Foo Nin et al., 2012), macroeconomic shocks and regulations are important factors to consider in the analysis, however culture and legal origins (Castillo-Merino and Rodríguez-Pérez, 2021) are the real key drivers that shape firms when adopting ESG strategies. According to our review, civil-law countries detain cultural elements, including stakeholder orientation and harmony, egalitarianism, autonomy (Cai et al., 2016), which prompt higher levels of ESG performance.

Not only do cultural elements and informal institutions intervene in ESG performance directly, but they also represent important factors in influencing internal determinants: namely corporate governance and the role of investors. There is in fact a discrepancy in the literature on the role of these two factors in determining ESG performance. The results

showed that the effectiveness (or not) of the bundles of board characteristics for ESG performance varies across institutional contexts (Lewellyn and Muller-Kahle, 2023) and the importance of corporate governance activities differs between jurisdictions where the shareholders' view prevails and where regulations aimed at protecting stakeholders' interests are stronger. Institutional investors also seem to play different roles among countries. In Anglo-Saxon and Nordic European countries, the role of investors' activism and institutional investors waiving for sustainability is in fact much stronger than in other EU countries.

Future investigations could meticulously analyse the covert dynamics of informal institutions in exerting an influence on these factors. These studies could also explore the motivations of the different actors depending on their cultural norms. Due to few qualitative studies identified, future work should explore adopting such methodologies. Qualitative research could provide insight into determinants through techniques like interviews, ethnography, and case studies. This may allow a closer examination of influences from different viewpoints.

Proposition 1d. *Qualitative methods could improve the understanding of the complex cultural and legal origins of countries in determining ESG performance either directly or indirectly through their influence on formal institutions, corporate governance activities and investors' role.*

Our findings highlighted that the role of industry can be extremely important for companies in developed countries, while no significant association was found among emerging countries (Garcia et al., 2017). This is especially true for companies operating in sensitive industries, who exhibit higher levels of ESG performance in developed countries. Nevertheless, it is imperative to acknowledge that the studies analysed often overlooked companies that were not listed in stock exchanges, as they are not subject to disclosure obligations until 2024. Consequently, the generalizability of this finding may be limited.

Proposition 1e. *The analysis of companies in sensitive industries operating in developed countries should be replicated in samples of companies not listed in stock exchanges in order to verify whether they still detain high levels of ESG performance.*

In terms of our second research question, our study demonstrated that the environmental pillar is differentiated the most from the other dimensions and the aggregate ESG. The environmental performance of companies varies the most between countries (Mooneeapen et al., 2022), due to cultural differences but especially because of industry effects. Industry has been proven to have the strongest external effect on the environment by several studies, even considering sensitive industries in emerging countries (Garcia et al., 2017). Furthermore, the analysis at the disaggregate level was fundamental in order to fully understand the discrepancies of the results related to financial performance. Indeed, financial performance was found to have the strongest impact on corporate environmental performance (Arminen et al., 2017; Garcia et al., 2017). *Accordingly*, the analysis at the disaggregate level is fundamental in opening a new chapter on how the management team can orient its decision-making processes.

Proposition 2. *Since external determinants, led by industry effects, and financial performance have been shown to have the greatest importance in determining environmental performance, future studies should analyse how the management team considers potential conflicts and tensions between social, environmental and governance objectives.*

This last proposition sheds light on the need to adopt new theoretical horizons to better explain complex phenomena. We found that scholars have mostly focused on the resource-based view, agency theory, stakeholder theory (Arayssi et al., 2016) and institutional theory in exploring the drivers of ESG performance. The resource-based view has demonstrated that ESG performance depends on the resources the company has at its disposal and how it organizes them (Short et al., 2015; Husted and Filho, 2016; Rothenberg et al., 2017). Agency and stakeholder theories have both confirmed that independent, gender-diverse, disciplined, and CSR-focused boards function in favour of ESG performance (Shahbaz et al., 2020; Govindan et al., 2021; Meng et al., 2022; Nerantzidis et al., 2022). Institutional theory has been found to be fundamental in explaining the role of institutional pressures in shaping firms' characteristics (Drempetic et al., 2020; Graafland and Smid, 2015).

Often, these theories must be combined because they are not able to explain satisfactorily the phenomena that are being observed, with the risk of simplifying too much the complexity of the decisions that CEOs need to take, where different benefits – social, environmental and economic – and their determinants may or may not coexist. In this case, several alternative theories should be considered by scholars in order to provide a understand the management of tensions and conflicts between different dimensions. Therefore, despite several studies support the adoption of multiple theoretical frameworks to explain ESG performance, we suggest that ongoing studies should test old and alternative theories for their ability to explain the complexity.

Proposition 3. *Although the resource-based view, agency, stakeholder, and institutional theories have explained the role of the determinants on ESG performance, new theoretical frameworks, including system thinking, institutional complexity and paradox theory, could be used in future research to explore the complexity of the interactions between internal and external determinants.*

6. Conclusion and implications

6.1. Originality of the results and academic, managerial and policy implications

Today, more than ever, the ESG paradigm is subject to a high level of external scrutiny by the media and the general public. In order for this framework to survive, it is essential that we further our understanding of the underlying dynamics, the limits of this system and the way forward to fix potential flaws and provide a fairer measurement system for society. In line with this aim, our study develops a novel and comprehensive framework of the key factors that affect ESG performance across different countries and regions. Not only the study has analysed the impact of determinants as defined by scholarly consensus, but it also investigated the nature of the discrepancies in the literature, which the authors believe is at the true hearth of this study original results. At the root of the discrepancies, the authors have found that ESG measurement frameworks and informal institutions, culture and legal origin play a crucial role. In light of these findings, further research should continue detecting the role of financial performance, board independence, cross-listing as well as corporate governance activities and the role of investors.

From a scholarly perspective, this review represents the first SLR to provide a pioneering framework for future research in the field of ESG performance determinants and measurement methodologies. It reveals important relations that are supported by the existing literature: larger (Drempetic et al., 2020), non-family-controlled firms (Beji and Loukil, 2021) with good resources and with a high proportion of women and employees from diverse backgrounds on their boards, were statistically

found to have higher levels of ESG performance. Stewardship activities (Chevrollier et al., 2019), internationalization, M&A, investment in technological innovation and R&D, but also approaches explicitly aimed at sustainability, such as stakeholder orientation, presence of a sustainability/CSR committee and the adoption of management systems are all strategies that are statistically proven to increase the ESG performance of the companies. At the same time, this work shed light on the literature discrepancies on the role of financial performance (Khaled et al., 2021; Crace and Gehman, 2022), cross-listing (Cai et al., 2016) and strong institutions (Attig et al., 2016; Cai et al., 2016; Umar et al., 2020). This review also proposes future directions for scholars to continue the discussion on these discrepancies and to further investigate the role of these determinants.

Furthermore, our findings have interesting managerial and policy implications. A company aspiring to enhance its ESG performance has various options at its disposal. It could bolster its board of directors by substantially increasing the representation of women or by expanding the proportion of employees with diverse educational, national, or ethical backgrounds. Alternatively, the company could choose to allocate greater funding towards research and development or new technologies. Another viable approach could involve establishing a sustainability committee or adopting management systems. Hence, the study could serve as a guidebook for the implementation of strategies aimed at increasing ESG performance as an aggregate or when managing the tensions between singular pillars according to their industry and geographical locations.

Our findings also reveal significant results regarding the external determinants of ESG performance, providing interesting insight for policymakers. While regulatory frameworks undeniably play a crucial role in steering the transition, our research demonstrates that their impact can vary due to the presence of distinct informal institutions at work. Policymakers might therefore shoulder the responsibility of balancing current attempts to harmonize measurements and shared taxonomies, in line with each country specific needs. Two relevant policies are being promoted at the European Union level that further these objectives. One is the Taxonomy of sustainable activities (European Commission, 2023a,b) which is being expanded to cover more activities compared to its initial version. This framework will be extremely useful to alleviate the existing discrepancies in terms of measurement of ESG performance. Furthermore, a recently launched proposal (European Commission, 2023a,b) has the ambition to increase the transparency and order the market for ESG ratings, that as of today is extremely fragmented, resulting in issues for both academic and practitioners. According to our results, such policies are much needed today and should be considered also by other jurisdictions.

At the same time, the SLR also provides original insights into the strengths and the limitations of the current literature on the topic, thus presenting propositions to be tested by future research. These limitations are partly attributable to the use of various data sources, but they are also related to the indirect role of informal institutions, which has received little attention, to the need for a more precise definition of board independence and an analysis of sensitive industries, as well as the need to examine the potential conflicts between the three dimensions using theoretical frameworks better suited to comprehending complexity.

6.2. Research limitations and future direction of research

The study's main limitation takes its roots from the same ground where the major strength stands. Because the papers have analysed different ESG rating agencies, often with contrasting results, studies with similar topics have shown different results. We also found that the variability among ESG definitions and measurements also applies when considering historical data within the same providers. At the same time, because it is still unclear which method is best for measuring ESG, a comprehensive overview is preferable, which this study has accomplished. We have also established that data providers and measurement methodologies also reflect cultural dynamics, which should not be neglected in future studies. Scholars shall accomplish the duty to conduct additional research on ESG performance determinants and measurement methodologies in line with these findings.

The second limitation of this study is the impossibility of drawing conclusions on the role of ESG reporting and disclosure in ESG performance. The only study analysed, which proved the non-correlation between the continuous quality improvement – accompanied by mandatory legislative requirements - and the substantial improvement in ESG performance, was limited to a sample of Swedish companies, thus preventing any possible generalization. Therefore, future research should further investigate the effectiveness of different ESG reporting standards and guidelines and the role of sustainable finance legislations.

One final limitation of a systematic literature review is that it relies on the availability and quality of published studies. Therefore, gaps in the literature may exist that were not captured by the review.

To conclude, as scholars committed to conscientious enquiry, we hold the view that research can best fulfil its defining purpose by discerning the issues and formulating a new question ahead of proposing definitive answer. Guided by this perspective, the present work respectfully poses to our esteemed readership the query: *Do we really need one single classification?*

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CRediT authorship contribution statement

Alice Martiny: Conceptualization, Investigation, Methodology, Writing – original draft, Writing – review & editing, Data curation. **Francesco Testa:** Conceptualization, Methodology, Supervision, Writing – review & editing. **Jonathan Taglialatela:** Data curation, Methodology, Supervision, Writing – review & editing. **Fabio Iraldo:** Supervision.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

No data was used for the research described in the article.

Appendix A

Table A.1
Journal distribution of the selected articles

Name of the Journal	Number of the articles
Journal of Business Ethics	18
Journal of Cleaner Production	11
Finance Research Letters	10
Business Strategy and the Environment	9
Business & Society	5
Environmental Science and Pollution Research	4
Sustainability Accounting, Management and Policy Journal	4
Corporate Governance: An International Review	3
Economic Modelling	3
Frontiers in Environmental Science	3
Research in International Business and Finance	3
Sustainability	3
Business Strategy & Development	2
Corporate Governance	2
Frontiers in Psychology	2
Harvard Business Review	2
International journal of environmental research and public health	2
International Review of Financial Analysis	2
Journal of Management	2
Organization & Environment	2
Pacific-Basin Finance Journal	2
Academy of Management Journal	1
Accounting and Business Research	1
Applied Sciences	1
Asia Pacific Business Review	1
Asia-Pacific Journal of Accounting & Economics	1
Asian Journal of Business and Accounting	1
Borsa Istanbul Review	1
Business Horizons	1
China Journal of Accounting Research	1
Corporate Governance: The international journal of business in society	1
Corporate Social Responsibility and Environmental Management	1
De Economist	1
East Asian Economic Review	1
Emerging Markets Finance and Trade	1
Energy Policy	1
Entrepreneurship Theory and Practice	1
Environment, Development and Sustainability	1
Ethical Economy	1
Global Finance Journal	1
Humanities and Social Sciences Communications	1
International Journal of Business Governance and Ethics	1
International Journal of Contemporary Hospitality Management	1
International Journal of Finance & Economics	1
International Journal of Research in Marketing	1
International Journal of Production Economics	1
International Review of Finance	1
Journal of Accounting Research	1
Journal of Business Economics and Management	1
Journal of Business in Society	1
Journal of Business Research	1
Journal of Corporate Finance	1
Journal of Environmental Management	1
Journal of Financial Economics	1
Journal of World Business	1
Management Decision	1
Managerial and Decision Economics	1
Multinational Business Review	1
PLoS ONE	1
Public Relations Review	1
Research in International Business and Finance	1
Review of Finance	1
Review of Managerial Science	1
Social Indicators Research	1
Society and Business Review	1
Socio-Economic Planning Sciences	1
South African Journal of Economic and Management Sciences	1
Strategic Organization	1
Technological Forecasting and Social Change	1
The International Journal of Human Resource Management	1
The Journal of Finance	1
The North American Journal of Economics and Finance	1
The Review of Financial Studies	1
Thunderbird International Business Review	1

Appendix B

Table B.1
ratings distribution of selected articles

REFINITIV			
Refinitiv Eikon		DATASTREAM: Refinitiv historical financial database	Thomson Reuters ASSET4 database (now Refinitiv)
Mooneeapen et al. (2022); Disli et al. (2022); Barros et al. (2021); Ronalter et al. (2022); Fu et al. (2022); Cambrea et al. (2023); Pozzoli et al. (2022); Gebhardt et al. (2023); Cohen et al. (2023); Setiarini et al. (2023); Yorke et al. (2023); Słomka-Gołębiowska et al. (2023); Das (2023).		(**Alda, 2019**);	DasGupta (2021); Barko et al. (2022); Garcia and Orsato (2020); Drempetic et al. (2020); Semenova and Hassel (2019); Chollet and Sandwidi (2018); Gangi and Varrone (2018); Mervelskemper & Streit (2017); Maniora (2015); Del Bosco & Misani (2016); Attig et al. (2016); Ortas et al. (2015); Rees and Rodionova (2015); Qoyum et al. (2022); Baraibar-Diez and D. Odriozola (2019); Vuong & Suzuki (2021); Garcia et al. (2017); Nekhili et al. (2021); Tampakoudis and Anagnostopoulou (2020); Rajesh & Rajendran (2020); Shahbaz et al. (2020); Rajesh et al. (2022); Govindan et al. (2021); Lestari and Adhariani (2022); Castillo-Merino and Rodríguez-Pérez (2021); Al Amosh and Khatib (2023); Lozano and Martinez-Ferrero (2022); Venugopal et al. (2023);
Sustainalytics	Sustainable Investment Research International (SiriPro) – OLD SUSTAINALYTICS	MSCI stats	KLD – OLD MSCI
Arvidsson & Dumay (2022); Chevrollier et al. (2019); Husted & Filho (2016); Zhao & Murrell (2022); Graafland and Smid (2015); Cohen et al. (2023)	Labelle, et al. (2018); Orlitzky et al. (2017);	Crace and Gehman (2022); Umar et al. (2020); Cai & al., (2016); Harjoto et al. (2019); Brower and Rowe (2017); Rothenberg et al. (2017); Chan et al. (2016); Attig et al. (2016); Cheng et al. (2023);	Short et al. (2015); Kashmiri & Mahajan (2014); Chiu and Sharfman (2011); Zhao and Murrell (2022); Choi and Lee (2018); Kang (2017); Hart et al. (2015); Brower & Mahajan (2013); Mallin et al. (2013); Hafsi and Turgut (2013); Zhang (2012); Wong et al. (2011); Mallin and Michelon (2011); Manner (2010); Gerde (2001); Lee and Riffe (2017); Cohen et al. (2023);
VigeoEiris	CSRHub	The Sustainable Investment Research Institute (SIRIS)	Innovest: Intangible Value Assessment (IVA)
Beji and Loukil (2021); Cassely et al. (2021); Crifo et al. (2018)	Arminen et al. (2017); Nerantzidis et al. (2022)	Galbreath (2013);	Foo Nin et al. (2012)
GMI Ratings	RepRisk	Hexun	KEJI Index
Attig et al. (2016)	Houston and Shan (2022)	Qi et al. (2022); Meng et al. (2022); Yang et al. (2023); Wang et al. (2023);	Ari and Youkyoung (2018)
SynTao Green Finance	Bloomberg	HBR Website	Dow Jones Sustainability World Index (S&P)
Huang et al. (2022)	Harjoto and Wang (2020); Arayssi et al. (2016); Mans-Kemp and van der Lugt (2020); Ng et al. (2020); Wang et al. (2023); Sun and Saat (2023); Li and Pang (2023); Mu et al. (2023); Peng et al. (2023); Chen et al. (2022); Li and Li (2022); Xu and Zhao (2022); Liu et al. (2022); Wang et al. (2022); Huang et al. (2023); Chen et al. (2023); He et al. (2023);	Garcia-Blandon et al. (2019)	Eberhardt-Toth (2016); Suttipun and Dechthanabodin (2022); Jang et al. (2022)
Heshun.com	Huazheng	Sino-Securities Index Information Service	Wind Database

(*continued on next page*)

Table B.1 (*continued*)

Heshun.com	Huazheng	Sino-Securities Index Information Service	Wind Database
Wang et al. (2023)	Song et al. (2023); Sun and Saat (2023); Zhong et al. (2023); Mu et al. (2023); Lu et al. (2023)	Wang et al. (2023); Yan et al. (2023); Fu et al. (2022); Wang et al. (2022); Tang et al. (2023); Xue et al. (2023)	Xue et al. (2023);
FTSE Russell			
Wong (2023);			

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