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THE SUSTAINABILITY REPORTS (ESG) AND THEIR IMPACT ON THE STOCK PRICES OF THE LISTED COMPANIES: A SYNTHETIC ANALYSIS OF ACADEMIC LITERATURE

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Abstract:

In recent years, sustainability has emerged as a focal point in economic and financial discourse, prompting companies to increasingly disclose their environmental, social, and governance (ESG) practices through sustainability reports. These disclosures provide investors with valuable insights into corporate responsibility and long-term commitments to sustainable development. This study explores the extent to which ESG reporting influences stock prices and financial performance, as well as the mechanisms underlying this relationship. This study aims to offer a comprehensive understanding of the mechanisms underlying the relationship between ESG reporting and stock price or financial performance. To achieve this, a bibliometric analysis of the existing academic literature was conducted to systematically map the research landscape, identify trends, and highlight influential contributions within the field.

Key words: *Sustainability Reports, ESG, and Stock Prices, Financial Performance*

1. Introduction

Over the past few years, sustainability has increasingly become a focal point in discussions within the economic and financial domains. The companies are increasingly motivated to create and publish detailed reports on their Environmental, Social, and Corporate Governance (ESG) activities. These reports, generically known as sustainability reports, offer to the investors insights into companies' commitments and practices toward the sustainable development. In this context, the key question to be addressed is: what is the extent and which are the mechanisms used by these reports to influence the stock prices of the companies listed on different capital markets?

Many studies published recently have shown a link between the corporate transparency and responsibility and the financial performance of different companies. The publication of the sustainability reports appears to have a significant role for the investors' confidence. However, this relationship is heterogeneous, varying according to industries, regions and the reliability of the provided data. Therefore, an in-depth analysis of the specialized literature is essential for a comprehensive understanding of how the ESG reports can influence the prices of the stocks and which factors mediate this influence.

This study aims to develop a comprehensive understanding of the research landscape at the intersection of ESG reporting and stock price or financial performance, with the objective of identifying key academic contributions and dominant research themes. A bibliometric analysis was also conducted, to examine the links between these topics and outline the current state of research in the field.

2. Literature review

The Importance of Sustainability Reports in the Context of the Capital Markets

The interest on the impact of the sustainability reporting on the market value of different listed companies has grown significantly. Beginning with Amel-Zadeh and Serafeim (Amel-Zadeh & Serafeim, 2018), the researchers have highlighted that an increasing number of institutional investors are adjusting their financial strategies to include the sustainability criteria. The ESG report thus becomes an essential instrument through which the companies can communicate more effectively with their actual and potential investors, explaining how they manage the environmental risks, the social issues and their internal governance. This communication can reduce the information asymmetry between their management and the market, leading to a more accurate valuation of the company and implicitly, a positive influence on its' stock prices.

Furthermore, from the financial perspective, including different ESG criteria can signal a greater capacity for the company to manage its' long-term risks and to generate a stable performance. That's why the investors perceive the companies with well-developed ESG reports as being less exposed to the reputational or regulatory risks, which can lead to a favorable market position.

The mechanisms by which the Sustainability Reports Influence the Stock Prices

The publication of sustainability reports influences stock prices through several interconnected mechanisms:

1. The reduction of the uncertainty and the cost of the capital: Through the transparency offered, these reports reduce their investor's uncertainty regarding the non-financial risks. The studies have shown that the financial markets penalize the companies with unclear or controversial environmental and governance practices. The clear communication can bring significant benefits in the terms of the cost of the capital (Dhaliwal et al., 2011).

2. The signaling of quality and of the attractiveness for the responsible investors: the ESG reports serve as a signal for the investors that are seeking the responsible and long-term sustainable companies, especially for the funds with responsible investment strategies. These funds have become important players in the financial markets, and the

presence of a quality report can increase their interest, positively influencing the demand and their stock prices (Khan, Serafeim, & Yoon, 2016).

3. The link to the actual financial performance: There is a direct link between the qualities of the ESG reporting and the companies' financial performance. Investors tend to reward the firms that demonstrate their real commitments to sustainability and this is not just a formal compliance exercise. This is evidenced by the appreciation of their stock prices in the medium and long term, suggesting that the sustainability is becoming a key competitive factor (Eccles, Ioannou, & Serafeim, 2014).

4. The reputational building and the stakeholder relations: The sustainability reports can influence the public perception and the stakeholder relations. A positive image, built through transparency and responsibility, can reduce the reputational risks and can generate competitive advantages, indirectly influencing the company's financial valuation (Clark, Feiner, & Viehs, 2015).

5. The influence on the corporate governance: the ESG reporting contributes to better corporate governance. By exposing governance practices, risky or unethical practices can be prevented and the investors can avoid the companies with potential for scandals or legal issues. This added protection can be rewarded with higher stock prices (Amel-Zadeh & Serafeim, 2018).

The Sustainability Reporting Standards and Methods

A crucial aspect for understanding the influence of the ESG reports on the capital markets is the reporting standards used by the companies. These standards aim to standardize and to lend credibility to the process by facilitating analysis made by investors and other market participants. A lack of comparability and transparency has been for a long time a major barrier for the effective use of these reports in the investors' decision-making processes.

Among the most well-known and adopted standards exist the following ones:

- ESRS (European Sustainability Reporting Standards): adopted by the European Commission on 31 July 2023, are to be applied by all companies falling under the scope of the Corporate Sustainability Reporting Directive (CSRD)
- GRI (Global Reporting Initiative): The most widespread, they offer a comprehensive framework focused on the social, environmental, and governance transparency, allowing the companies to communicate their impact in detail. Adopting the GRI standards increases the comparability and credibility of the reports, facilitating the assessment of the risks and of the opportunities by the investors (KPMG, 2020).
- SASB (Sustainability Accounting Standards Board): More investor-oriented, it proposes a set of industry-specific indicators that help quantify the ESG performance with a direct impact on the financial value. This standards contribute for the integration of the sustainability into the financial decisions (Eccles & Krzus, 2018).
- TCFD (Task Force on Climate-related Financial Disclosures): Being recommended by G20 their focus is on climate risks and it requires to the companies to disclose how they manage climate change-related risks and opportunities. Publishing this information is crucial for the investors concerned about the long-term impact on the company value (Task Force on Climate-related Financial Disclosures, 2017).

- IFRS Sustainability Disclosure Standards (ISSB): these aim to unify the existing initiatives into a coherent global framework, bringing clarity and more consistency to the communication of ESG information relevant for the investors.

The adoption of one of these standards is associated with a greater investor confidence and a reduced stock volatility, indicating a positive effect on the market perception (Ioannou & Serafeim, 2015). In the same time, the companies adhering to the recognized standards tend to have a better long-term financial performance, reinforcing the role of the ESG reports as a determinant factor for the stock prices.

The Impact of the Sustainability Reports on the Financial Performance and the Capital Markets

A growing body of empirical studies highlights the positive link between the sustainability reporting and the companies' financial performance. Amel-Zadeh and Serafeim (2018) emphasize that, while sectorial and regional variations exist, the companies with rigorous ESG reporting generally tend to obtain superior profitability, lower capital costs and a reduced stock volatility.

This effect can be attributed to how the ESG reporting helps to manage the operational and financial risks. By identifying and openly communicating the environmental challenges, their social aspects or governance issues, the companies can implement preventive measures and, by that, reducing the unforeseen losses (Krüger, 2015). This provides the investors with an increased sense of security, which translates into a higher valuation of the company in the capital markets.

Furthermore, according to a study by Fatemi, Glaum, and Kaiser (Fatemi et al. 2018), the sustainability reporting can generate a competitive advantage by attracting capital from the ESG-focused investors, who tend to support that companies over the long term. Thus, the stock prices reflect not only the current performance but also the positive expectations regarding the long-term sustainability and resilience.

Another study also shows that in the mature markets, the impact of the ESG reporting is stronger, due to a higher level of awareness and demand for those information. In the emerging markets the effects may be weaker due to a lack of clear regulatory framework or a still-developing investment culture (Ioannou & Serafeim, 2015).

The ESG reporting also influences the capital market stability in addition to the financial performance of the companies. A study written by Khan, Serafeim, and Yoon (Khan et al., 2016) demonstrates that the firms with a good ESG performance tend to have a lower stock price volatility reflecting the investors' perception of a reduced risk. At the same time, the ESG reports can help to reduce the information asymmetry, one of the main factors that can cause unexpected price fluctuations in the capital markets (Dhaliwal et al., 2011). By increasing the transparency, the investors become better equipped to anticipate the future developments and that fact leads to an increased market efficiency.

The Empirical Results Regarding the Relationship between the ESG Reporting and the Stock Prices

The empirical literature written on the impact of the sustainability reporting on the stock prices has seen considerable expansion in the last decade being driven by an increasing market interest in the ESG criteria. The recent studies cover a wide range of industries, regions and time periods, outlining a complex and, sometimes, nuanced picture of this relationship.

A recurring finding is that the publication of the ESG reports is associated with a positive market reaction, reflected in short or long-term stock appreciation. For example, Lee and Yeo (Lee &Yeo, 2016), in a study made for the listed companies in Asia found a positive correlation between the ESG scores and the stock market performance, especially in the countries with stricter regulations or high social expectations regarding the corporate responsibility.

An influential study written by Fatemi et al. (Fatemi et al., 2018) shows that only the ESG components perceived as relevant to the firm's strategy contribute to the stock market appreciation. The initiatives perceived as isolated or as superficial can generate neutral or even negative reactions, highlighting the importance of a coherence between the reporting, the strategy and the actual performance.

Regarding the temporal dimension, some studies show immediate effects around the ESG report publication date, while others highlight cumulative effects, visible only in a longitudinal context. For example Khan, Serafeim and Yoon (Khan et al., 2016) show that the firms that are consistently reporting the ESGs with an emphasis on the industry-relevant aspects record sustained stock market outperformance.

The impact of the environmental, social and governance (ESG) sustainability score and value added to companies' market capitalization was analised by Șerban (Șerban et al., 2024) in a sample of 5557 companies from 78 countries, splited into 9 sectors of economic activity and 6 regions, on the basis of a a multiple linear regression model, for the financial year 2019, before the advent of the COVID-19 pandemic. A direct relationship was identified between ESG scores, value-added indicators, and market capitalization, with sector-specific variations in impact.

In Europe, the stricter regulations on non-financial reporting (e.g., Directive 2014/95/EU) have allowed the analysis of the mandatory vs. the voluntary impact of the ESG reporting. Michelon (Michelon et al. 2025) have found that the reporting obligation increases transparency but the quality and the depth of the reports remain critical for the investors' confidence. Thus, the companies that exceed the minimum requirements and provide a detailed picture of their ESG performance enjoy a superior stock market valuation. In the emerging markets, there are fewer studies, but trends appear similar: the publication of a correct, complete ESG report aligned with the international best practices (GRI, SASB, etc.) tends to be rewarded by investors. However, in these contexts, the level of financial literacy and trust in the capital markets can moderate the impact of reporting on prices.

In summary, the empirical research supports the idea that the ESG reporting, if authentic, relevant and part of the business model, can have a significant positive effect on the stock prices. However, the market reaction depends, also, on the quality, frequency and consistency of the reporting, as well as on the economic and regulatory context in which the company operates.

3. Methodology

To assess academic progress and understand the dynamics of knowledge evolution in each field (Aivaz & Petre, 2024), an advanced search of the SCOPUS database was conducted through a bibliometric analysis, using VOSviewer, version 1.6.19, focusing on the "*Article Title*", "*Abstract*", and "*Keywords*" fields, using the following advanced query: "*(TITLE-ABS-KEY (ESG) OR TITLE-ABS-KEY (Sustainability Reports) OR TITLE-ABS-KEY (environmental social governance) OR TITLE-ABS-KEY (esg REPORT*) OR TITLE-ABS-KEY (esg disclosure) AND TITLE-ABS-KEY (Stock Prices) OR TITLE-ABS-KEY (Financial Performance)*".

The SCOPUS search yielded 4599 records spanning a period of more than three decades (the first identified article, being published in 1994 by Birkin).

Subsequent refinement of the search was achieved by implementing specific inclusion and exclusion criteria.The subject areas were restricted to *"Business, Management and Accounting", "Economics, Econometrics and Finance"*, **"**Social and Environmental Sciences", which together accounted for over 78% of the initially retrieved documents. The document types were limited to "*Article*", "*Book chapter*" and "*Books*"; publication stage was restricted to "*Final*" and language was limited to *"English".* In contrast, *"Conference Paper and Reviews", "Retracted documents", "Erratums and Notes"* were excluded as they were considered to be less relevant for the research objective. Considering that the analysis was conducted midway through 2025, the articles with publication year 2025 were accepted. The final dataset included 3667 eligible articles, which were analyzed using a combined approach. This approach integrated an initial statistical evaluation of publications and citations by year, journal, subject area, author, and country, utilizing Scopus's *"Analyze Search Results"* and *"Citation Overview"* tools, alongside the examination of visual bibliometric maps generated with VOSviewer.

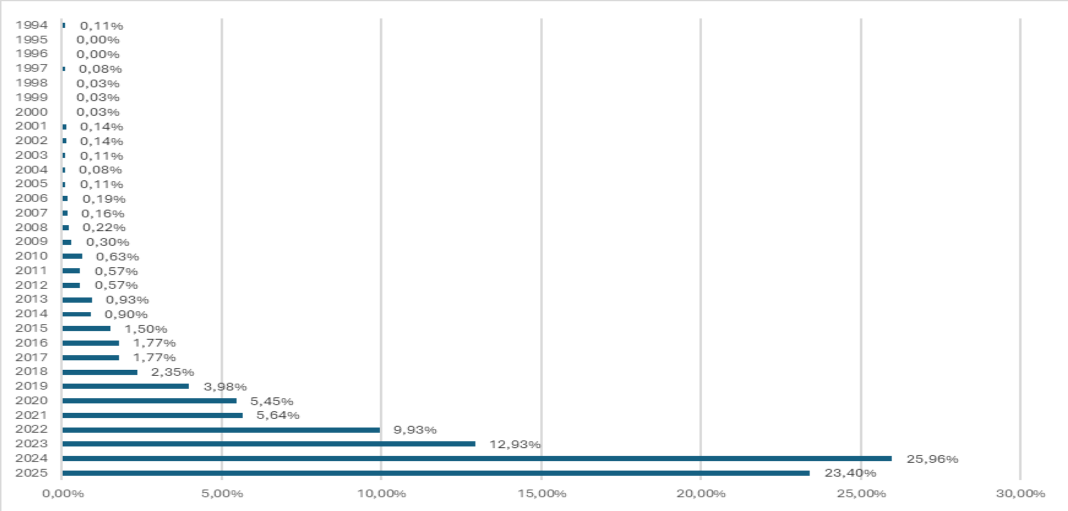
4. Results/findings

Primary statistical analysis

An initial statistical analysis was conducted using Scopus's *"Analyze Search Results"* and *"Citation Overview"* tools to examine the distribution of documents by publication year, document type, affiliation, country, funding sponsor, and subject area.

Trends in research on the relationship betwwe ESG Rpeports and Stock Price reveal a sharp increase in researchers' interest over the last 4 years, with roughly 70% of all analyzed publications appearing since 2020. In contrast, only 5% of the articles were published between 1994 and 2014. From 2015 and 2017, the publication rate remained low, averaging 1.6% of the total per year. A significant rise began in 2018, with 18% of the analyzed papers published over the following four years. In the last 4 years exponential increase in the number of publications have been recorded, accounting for more than 70% of all publications. Notably, 19% of the total articles includes in this analysis were published in just the first half of 2025. Triggered by the COVID-19 pandemic and the war in Ucraina, this trend highligts the role of ESG reports, in providing the investors informations about corporate commitments and actions toward sustainable development.

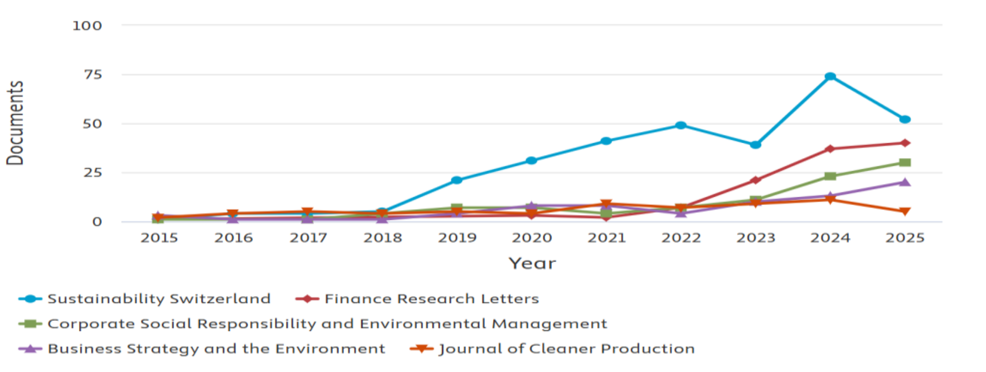
Figure 1.Documents distribution by year (1994- 2025)



Source: Authors, based on SCOPUS data

Figure 2 presents the distribution of documents by source over the past ten years. The top journals in terms of article count within the selected sample (over 50 each) are *"Sustainability Switzerland", "Finance Research Letters", "Corporate Social Responsibility" and Environmental Management", "Business Strategy and the Environment", "Journal of Cleaner Production"* and *"International Review of Financial Analysis"*. At the top of the list is "*Sustainability Switzerland",* which alone accounts for 321 publications.

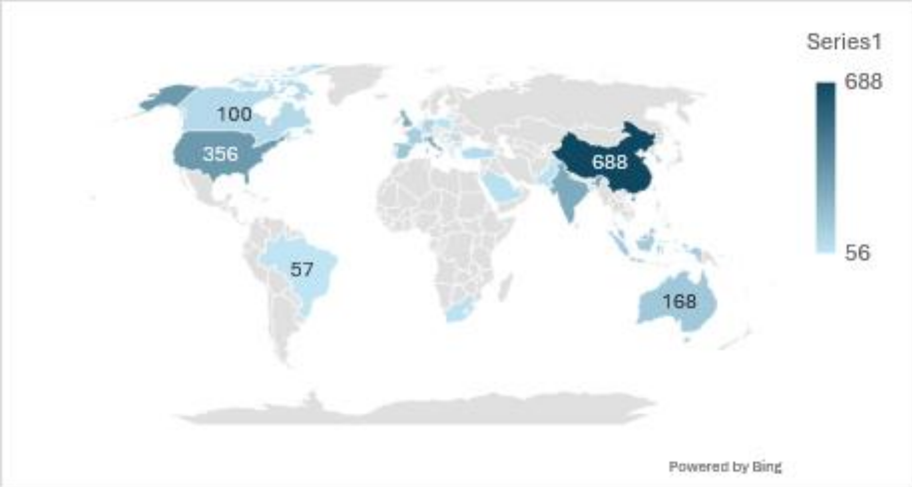
Figure 2. Documents distribution by source, between 2015-2025



Source: Scopus.com

The country-wise distribution of publications reveals the leading contributors of reseaech on ESG Sustainability reports and their relationship with stock price or financial performance. The top countries are China, (688 publications), United States (356), United Kingdom(313), India (290), Italy (288) , Malaysia (194), Spain (181), Australia (168), Indonesia (161), France (140), Germany (118), South Korea (112), Canada (100), Turkey (88), Romania(84), Taiwan (78) and Brasil (57). This geographical distribution indicates that the topic has generated board international interest, with Asia, North America, and Europe emerging as the primary regions of research activity.

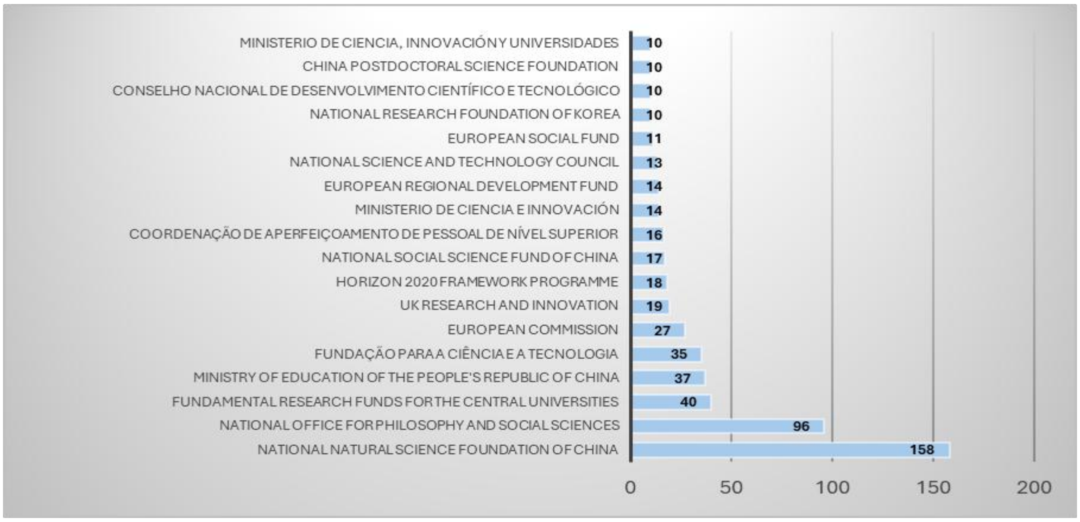
Figure 3. Documents distribution by country



Source: Authors, based on SCOPUS data

China's leading position is further supported by the primary analysis of the search results, which reveals that five of the top ten research sponsors are Chinese institutions: "*National Natural Science Foundation of China"; "National Office for Philosophy and Social Sciences", a* government organization in Beijing, China*; "Fundamental Research Funds for the Central Universities at Beijing University of Chemical Technology"; "Ministry of Education of the People's Republic of China"* and "*National Social Science Fund of China".*

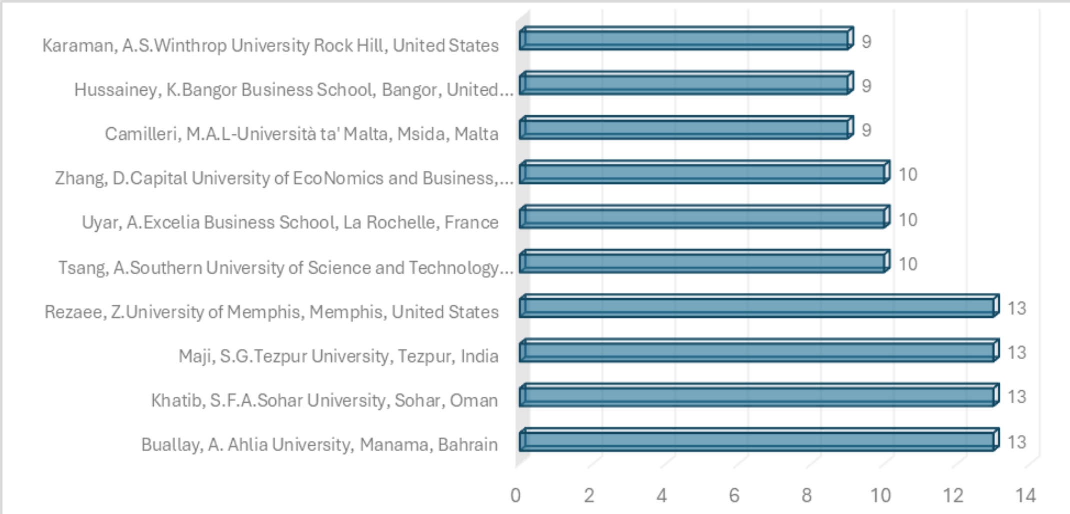
Figure 4. Documents distribution by funding sponsor. Top research sponsors



Source: Authors, based on SCOPUS data

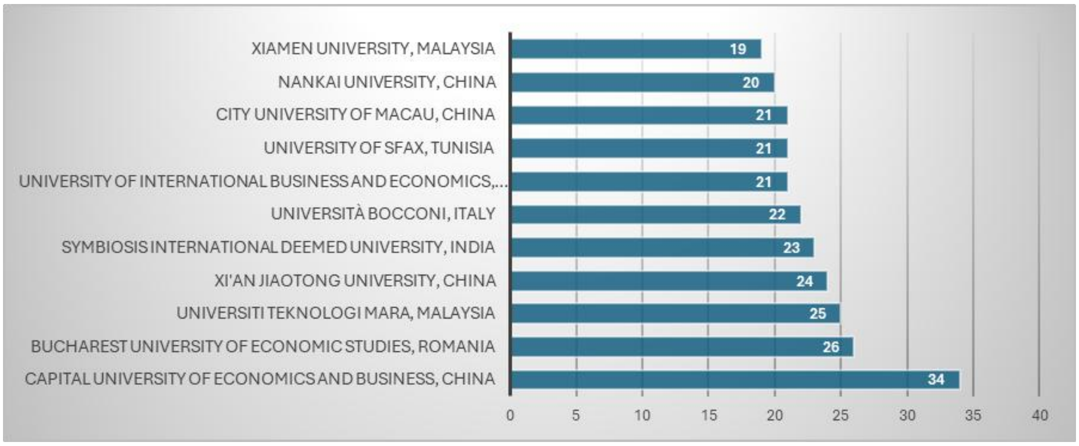
Figure 5 illustrates the contributions of the top 10 individual authors to the published indexed in Scopus, as well as their relative weight within collaborative research efforts.

Figure 5. Documents distribution by author. Top ten authors



Source: Authors, based on SCOPUS data

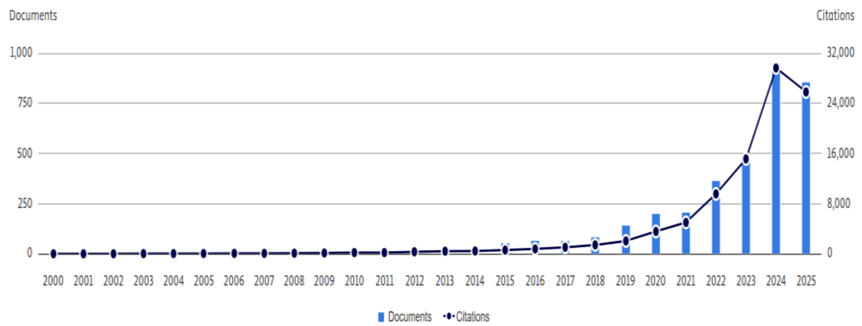
Figure 6. Documents distribution by affiliation



Source: Authors, based on SCOPUS data

An analysis of publication and citation trends over time, focusing on the relationship between ESG sustainability reporting and stock price or financial performance, based on "*Scopus Citation Overview*" data, reveals an exponential increase over the past four years. Since 2000, a total of 2808 documents have received 96623 citations, resulting in an average of 34,4 citations per cited document and an h-index of 142. Notably, 100 articles have accumulated more than 200 citations each between 2000 and 2025. As illustrated in Figure 7, the past five years have seen a significant increase in both the volume of publications and their citation counts. As ilustrated in the figure 7, the past five years have witnessed an increase in both the number of publication and their citations. The majority of citations were recorded between 2023 and 2025, whereas before 2020 only 8% of total citations have been recorded. Citation dynamics evolved as follows: 4% in 2020, 5% in 2021, 10% in 2022, 16% in 2023, 31% in2025 and 19% the first half of 2025. Throughout the 2020-2025 period, three articles recived over 1000 citations each, followed by another 12 articles with more than 500 citations since 2020.

Figure 7. Trends in the growth of publications and citations related to Sustainability Reports (ESG) and Their Impact on the Stock Prices Financial Performance



Source: Scopus Citation Overview

Table 1 presents the most highly cited articles, along with the evolution of their citation counts over the past five years (2020–2025).

Table 1. Leading Cited Articles on the Influence of ESG Reports on Stock Price and Financial Performance

Publication Year	Citation by Year		<2020	2020	2021	2022	2023	2024	2025	Total
	Article	Authors								
2015	*"ESG and financial performance: aggregated evidence from more than 2000 empirical studies"*	*Friede, Gunnara; Busch, Timo; Bassen, Alexander*	112	106	154	275	334	557	472	2010
2021	*"Firms and social responsibility: A review of ESG and CSR research in corporate finance"*	*Stuart L. Gillan, Andrew Koch, Laura T. Starks*	0	0	16	125	290	541	398	1370
2008	*"Socially responsible investments: Institutional aspects, performance, and investor behavior"*	*Luc Renneboog, Jenke Ter, Horst, Chendi Zhang*	459	79	102	109	120	118	94	1081
2021	*"The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China"*	*David C. Broadstock, Kalok Chan, Louis T.W. Cheng, Xiaowei Wan*	0	0	38	117	212	330	211	908
1997	*"Developing intellectual capital at Skandia"*	*Leif Edvinsson*	639	48	42	49	33	43	21	875
2021	*"Responsible investing: The ESG-efficient frontier"*	*Lasse Heje Pedersen, Shaun Fitzgibbons, Lukasz Pomorski*	0	0	11	94	176	297	240	818

2019	*"Do environmental, social, and governance activities improve corporate financial performance?"*	*Jun Xie, Wataru Nozawa, Michiyuki Yagi, Hidemichi Fujii, Shunsuke Managi*	4	30	44	93	118	232	184	705
2008	*"Learning from difference: The new architecture of experimentalist governance in the EU"*	*Charles F. Sabel, Jonathan Zeitlin*	445	29	41	37	23	41	21	6/37
/2020	*"Do shareholders benefit from green bonds?"*	*Dragon Yongjun Tang, Yupu Zhang*	1	15	50	100	135	193	130	624
2021	*"Environmental, Social and Governance (ESG) Scores and Financial Performance of Multilatinas: Moderating Effects of Geographic International Diversification and Financial Slack"*	*Duque-Grisales, Eduardo Duque-Grisales E.; Aguilera-Caracuel, Javier*	0	5	17	76	120	219	173	610
2017	*"Sensitive industries produce better ESG performance: Evidence from emerging markets*	*Alexandre Sanches Garcia, Wesley Mendes-Da-Silva, Renato J. Orsato,*	15	25	40	88	106	174	131	579
2022	*ESG disclosure and financial performance: Moderating role of ESG investors"*	*Zhongfei Che, Guanxia Xie*	0	0	0	6	64	247	233	550
2019	*"Is sustainability reporting (ESG) associated with performance? Evidence from the European banking sector"*	*Amina Buallay*	5	22	38	78	96	185	122	546
2017	*"Does ESG performance have an impact on financial performance? Evidence from Germany"*	*Patrick Velte*	11	16	24	87	83	183	142	546
2016	*"Board Attributes, Corporate Social Responsibility Strategy, and Corporate Environmental and Social Performance"*	*Shaukat, Amama Shaukat A.; Qiu, Yan; Trojanowski, Grzegorz*	54	45	58	68	101	117	83	526
2016	*"Corporate social responsibility and financial performance: A non-linear and disaggregated approach"*	*Joscha Nollet, George Filis, Evangelos Mitrokostas,*	45	29	47	76	75	126	79	477
2017	*"The effects of board characteristics and sustainable compensation policy on carbon performance of UK firms"*	*Faizul Haque*	26	27	33	49	97	134	109	475
2019	*"Corporate governance and board of directors: The effect of a board composition on firm sustainability performance"*	*Valeria Naciti*	1	25	47	62	100	150	81	466
2022	*"Sustainable development, ESG performance and company market value: Mediating effect of financial performance"*	*Guangyou Zhou, Lian Liu, Sumei Luo*	0	0	0	9	63	200	179	451

2020	*"ESG impact on performance of US S&P 500-listed firms"*	*Bahaaeddin Ahmed Alareeni, Allam Hamdan*	0	0	15	52	74	162	130	433
Total			7886	3548	4997	9550	15128	29616	25900	96632

Source: Authors, based on SCOPUS "Citation overview" data

Bibliometric Analysis Using VOSviewer

Scopus data were exported in CSV format and analyzed using VOSviewer to construct and visualize the bibliometric network and identify research clusters.

Co-occurrence analysis of author keywords

A co-occurrence analysis was conducted using authors' keywords as the unit of analysis. The dataset included a total of 9197 keywords, of which 385 met the inclusion threshold of a minimum of ten occurrences. To ensure meaningful grouping, the minimum cluster size was set to 10. As a result, the 385 keywords were organized into six clusters, connected by 18435 links, with a total link strength of 48143. This clustering enabled the identification and visualization of the principal research themes within the bibliometric network.

The most frequently occurring and therefore, dominant keywords in the dataset are "*ESG"* (786 occurrences), "*sustainability"* (660 occurrences), and "*financial performance"* (542 occurrences). To further assess the influence of specific topics within the research network, keywords were ranked by total link strength. Notably, the same terms appear among the top ten most influential keywords, in a slightly different order, confirming their central role in the thematic structure of the field.

In addition to ESG Sustainability Reports, several keywords emerged as particularly influential based on both total link strength and frequency of occurrence. The most prominent among these are "*sustainability"* (660 occurrences; total link strength: 4537), „*ESG"* (786 occurrences; total link strength: 3577), „*corporate social responsibility"* (394 occurrences; total link strength: 3075), „*governance approach"* (227 occurrences; total link strength: 2507), and „*corporate governance"* (280 occurrences; total link strength: 1406).

Keywords specifically related to „*stock price*" and „*financial performance*" include „*financial performance"* (542 occurrences; total link strength: 2756), „*performance assessment"* (154 occurrences; total link strength: 1626), „*ESG performance"* (356 occurrences; total link strength: 1556), „*finance"* (157 occurrences; total link strength: 1544), „*stakeholder"* (145 occurrences; total link strength: 1475), „*performance"* (170 occurrences; total link strength: 1447), and „*industrial performance"* (117 occurrences; total link strength: 1243). These keywords reflect the thematic focus of the literature and illustrate the centrality of financial outcomes in ESG-related research.

Top ten keywords by total link strength

Keyword	Occurrences	Total link strength
sustainability	660	3828
esg	786	3036
sustainable development	394	2877
corporate social responsibility	488	2655
financial performance	542	2401
governance approach	227	2131
china	202	1780
performance assessment	154	1372
finance	157	1325
esg performance	356	1303

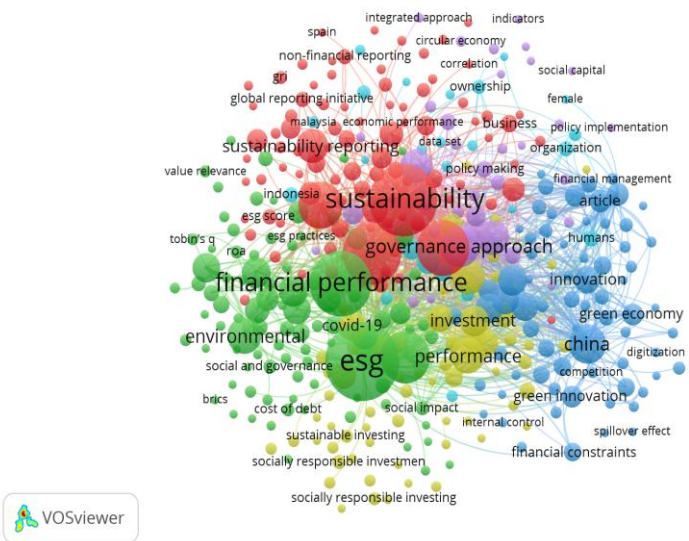
Top ten keywords by occurrences

Keyword	Occurrences	Total link strength
esg	786	3036
sustainability	660	3828
financial performance	542	2401
corporate social responsibility	488	2655
sustainable development	394	2877
esg performance	356	1303
corporate governance	280	1211
governance approach	227	2131
china	202	1780
environmental	173	698

Source: VOSviewer

The bibliometric analysis reveals that ESG, sustainability and financial performance constitute the predominant research themes in studies exploring the impact of sustainability reports on the stock prices of listed companies. ESG registers the highest occurrence (786), while sustainability demonstrates the strongest link strength (3828), underscoring its central role in connecting related research topics. Closely associated concepts, including corporate social responsibility, sustainable development, and ESG performance, further highlight the scholarly focus on how environmental, social, and governance practices influence corporate market valuation. The strong alignment between keyword frequency and link strength reflects a coherent and maturing research field, with sustainability emerging as the pivotal thematic hub in the context of ESG reporting and its financial implications

Figure 8. Author keyword co-occurrence map



Source: VOSviewer

Table 2 presents the composition of the six clusters identified through the co-occurrence analysis, based on authors' keywords as the unit of analysis

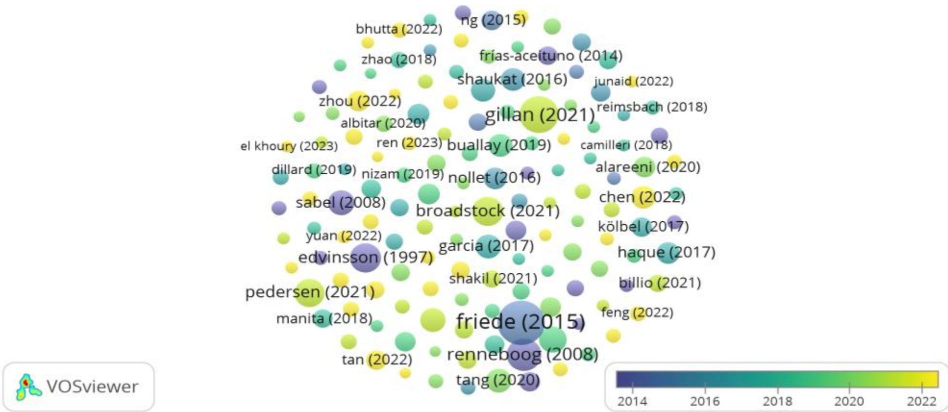
Table 2. Thematic Composition of Keyword Cluster

Clusters	Top Keywords by Total Link Strength			
	Keyword	Links	Occurrence	Total link strength
Cluster 1 (Red) -312 items. Sustainability Reporting & Disclosure Core terms like sustainability, sustainability reporting, governance, GRI, non-financial reporting shows the focuses on reporting standards, corporate disclosure, and transparency practices	Sustainability	370	660	3828
	Corporate social responsability	359	488	2655
	Sustainability reporting	215	153	615
Cluster 2 (green) - 19 items. Financial Performance & ESG Metrics Core terms like financial performance, ESG, environmental, social and governance, ROA, ESG score shows the focus on measuring ESG's financial impacts and ESG integration in accounting/finance	ESG	356	786	3036
	Financial performance	349	542	2401
	Environmental	195	173	698
Cluster 3 (blue) - 16 items. Innovation & Policy Core terms like innovation, China, green economy, digitization, green innovation, policy implementation indicate focus on innovation-driven sustainability, green transitions, national policies, especialy in China	China	272	202	1780
	Green Economy	172	61	595
	Inovation	228	99	862
Cluster 4 (yellow) - 15 items. Investment & Responsible Finance Core terms like investment, performance, social impact, sustainable investing, socially responsible investment indicate focus on Investor behavior, ESG-aligned financial products, and impact investing	Performance	276	170	1248
	Investment	263	121	1137
	Finance	278	157	1325
Cluster 5 (Mauve)-12 items. Governance & Organizational Aspects Core terms like governance approach, ownership, economic performance, policy making indicate focus on Institutional governance frameworks, stakeholder involvement, corporate responsibility	Performance Assessment	289	154	1372
	Governance, Approach	325	227	2131
Cluster 6 (Turquoise)-11 items. Social Capital, Policy, and Governance Structures Core terms like Social capital, Female, Policy implementation, Organization, Ownership, Business, Policy making indicate focus on social structures, diversity, and human factors in ESG and sustainability context	Organization	147	30	403
	Female	79	12	132

Citation analysis

The citation analysis, conducted at the document level with a minimum threshold of 143 citations (equivalent to the h-index), identified 140 articles meeting this criterion. Setting the minimum cluster size to 10, the resulting citation map not only illustrates the interconnections among influential studies but also reveals the key authors and research clusters that shape the academic discourse on ESG sustainability reporting and its impact on stock prices.

Figure 9. Citation map



Source: VOSviewer

The most cited article is *"ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies"* by Friede, Busch, and Bassen (Friede et al., 2015), published in the "*Journal of Sustainable Finance & Investment"* in 2015, with 2010 citations. This is followed by *"Firms and Social Responsibility: A Review of ESG and CSR Research in Corporate Finance"* by Gillan, Koch, and Stark (Gillan et al., 2021), published in 2021 in the "*Journal of Corporate Finance*", which has received 1370 citations. Ranking third is *"Socially Responsible Investments: Institutional Aspects, Performance, and Investor Behavior,"* authored by Renneboog, Horst, and Zhang, and published in 2008 in the "*Journal of Banking & Finance"* (Renneboog et al., 2015).

The earlier study by Renneboog, Horst, and Zhang critically reviews the foundational concepts of sustainability namely, "*Socially Responsible Investment (SRI) and Corporate Social Responsibility (CSR)",* highlighting their growing relevance in academic and financial discourse. Despite being conducted a decade ago, the study's conclusions remain pertinent, having opened important avenues for further research. The rapid global expansion of SRI, driven by heightened investor awareness of Environmental, Social, and Governance (ESG) concerns and increasingly supportive regulatory frameworks, particularly in western economies, has elevated SRI/CSR/ESG to the status of a significant asset class. However, key questions remain unresolved, especially concerning their impact on corporate finance, asset pricing, and financial intermediation. Although some evidence indicates a positive association between corporate social responsibility (CSR) and shareholder value, the direction of causality remains uncertain. Moreover, the impact of SRI on firms' cost of capital, investment behavior, and the validity of standard asset pricing models warrants deeper investigation (Renneboog et al., 2015).

Friede, Busch, and Bassen analyze over 2200 empirical studies published prior to 2015 to assess the relationship between environmental, social, and governance (ESG) factors and corporate financial performance (CFP). By aggregating all available previously published primary and secondary sources within academic literature reviews, their study offers the most comprehensive synthesis of research conducted on this subject to date. The results show that approximately 90% of the studies indicate a non-negative ESG–CFP relationship, with the majority highlighting positive effects. The positive ESG–CFP link has remained stable since the mid-1990s, indicating no significant learning effect in capital markets over time and more pronounced in emerging markets and non-equity asset classes. Particularly promising results were observed when differentiating between portfolio and non-portfolio studies, across regions, and within emerging ESG asset classes such as corporate bonds, green real estate, and investments in emerging markets. These findings highlight ESG outperformance potential in areas like North America, developing economies, and non-equity asset classes (Friede et al., 2015).

Gillan, Koch, and Stark offer a comprehensive review of the literature on Environmental, Social, and Governance (ESG) and Corporate Social Responsibility (CSR) within corporate finance, highlighting the field's mixed and sometimes contradictory findings (Gillan et al., 2021). Although many studies suggest a positive link between ESG/CSR performance and firm value or financial outcomes, the evidence is not consistent. Some researchers interpret high current firm values and low future returns as signs of a positive ESG/CSR impact, while others draw the same conclusion from low current values and high future returns. Further complications arise from potential correlations with risk, model errors, reverse causality, endogeneity, and the inherent difficulties in measuring ESG/CSR performance accurately.

Co-citation analysis

Co-citation analysis allows researchers to explore the knowledge framework within a field by revealing how academic works are interconnected through shared citations. This method depicts the interrelations among distinct academic fields, offering insights into how ideas evolve and cluster, and helping to map the broader intellectual landscape of a topic. The co-citation analysis, employing cited references as the unit of analysis with a minimum threshold of 20 citations per reference, identified 134 items of the 18970 cited references, which were grouped into four distinct clusters. A subsequent co-citation analysis, using cited authors as the unit of analysis with the same minimum threshold of 20 citations per author, revealed 112 authors out of 4462 meeting the criteria, forming six clusters.

Co-citation analysis with cited references as the unit of measurement generated the following clusters :

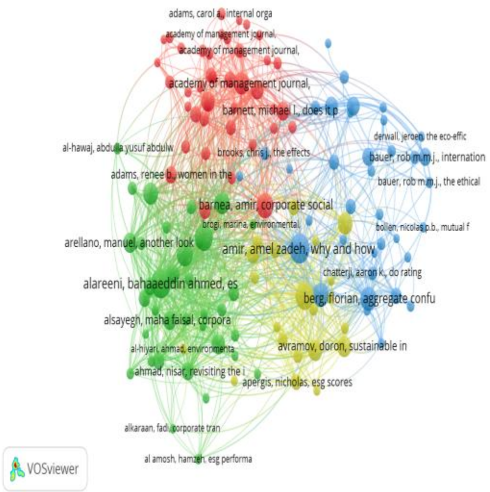
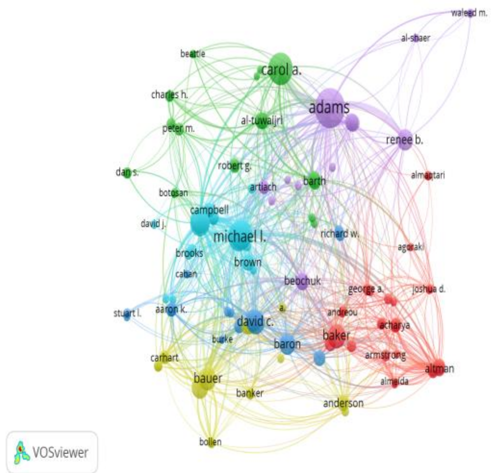
Cluster 1 (red, 41 items): focused on publications in the "*Academy of Management Journal*" and topics related to governance and organizational theory (e.g., Barnett, Barnea).

Cluster 2 (green, 36 items): more recent and applied research, including contributions by authors such as *Alareeni, Aouadi*, or *Aydoğmuş*, who explore the ESG – financial performance relationship.

Cluster 3 (blue, 36 items): authors like *Berg, Chatterji, Derwall* who address ESG rating divergence, market efficiency, and the validity of ESG evaluations.

Cluster 4 (yellow, 21 items): works focused on the impact of ESG on financial markets and quantitative methodologies (e.g., Billio, Auer).

Figure 10. Co-citation map

The analysis of co-citations with cited references as the unit of measurement	The analysis of co-citations with cited author as the unit of measurement
	

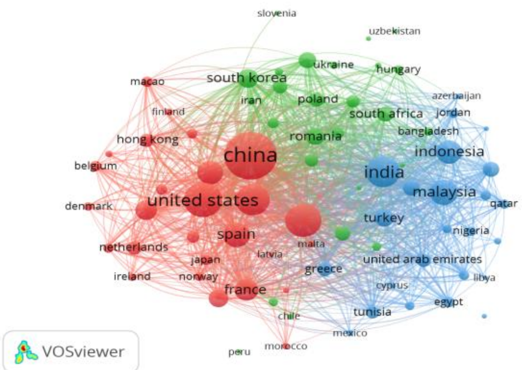
Source: VOSviewer

Bibliographic coupling

To uncover relationships between documents based on shared references, a bibliographic coupling analysis was conducted. This method reveals conceptual similarities, suggesting that the documents are likely focused on related research topics.

The Bibliographic coupling analysis, conducted using countries as the unit of analysis and applying a threshold of at least five publications per country regardless of citation count identified 77 out of 114 countries that met the criteria. The resulting network visualization map grouped these countries into three distinct clusters, based on a minimum cluster size of 10.

Figure 11. The Bibliographic coupling analysis, using countries as the unit of analysis



Source: VOSviewer

The map reveals a globally interconnected research landscape in Sustainability Reports (ESG) and their impact on the stock prices and financial performance, with strong participation from both developed and emerging economies. The central roles of China, the United States, and India indicate leadership in knowledge production, while the presence of regional clusters points to differentiated research priorities and collaborations. The structure also highlights opportunities to strengthen ties with less connected countries to foster inclusive and globally representative ESG scholarship.

Cluster 1-Red - 27 items. The cluster characterized by Western-centric collaboration, comprising countries such as the United States, China, United Kingdom, and Spain, reveals a high level of research activity and leadership in ESG/CSR and Stock Prices/ Financial performance topic. The United States and China emerge as the most prominent nodes, indicating their dominant contribution to the field. The strong interconnections among countries like the U.S., China, Spain, France, Canada and the Netherlands suggest the existence of a dense and well-integrated research network, primarily situated in developed economies and frequently associated with high-impact scientific publications

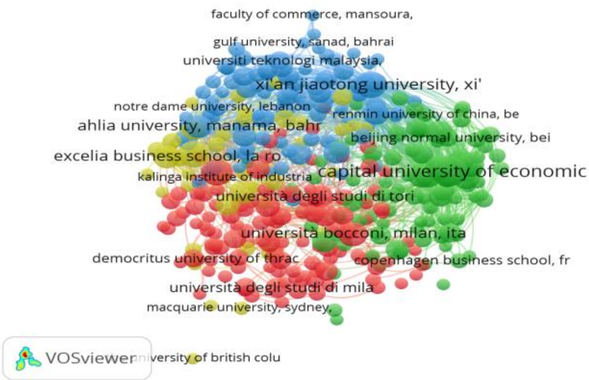
Cluster 2-Green - 26 items. The cluster representing Central and Eastern Europe and East Asia comprises countries such as Poland, Romania, Iran, South Korea, and Ukraine. It highlights the growing academic engagement and research output from emerging markets and post-transition economies in the ESG/CSR and Stock Prices/ Financial performance domain. The connections within this group indicate an expanding pattern of collaboration with both Western and Asian academic institutions, reflecting an increasing integration into the broader global scientific community.

Cluster 3- Blue - 24 items. The cluster representing South and Southeast Asia along with the MENA (Middle East and North Africa) region is primarily led by India. Indonesia and Malaysia, which serve as central nodes. It also encompasses countries from the Middle East and Africa, such as the United Arab Emirates, Turkey, Egypt, and Nigeria, indicating a growing level of academic collaboration in ESG-related research. This pattern suggests the presence of a regionally driven research agenda, potentially influenced by development priorities, climate policy initiatives, and evolving regulatory frameworks.

Furthermore, must be highlighted that India, China, United Kingandom the United States are the dominant players in ESG/CSR and Stock Prices research, both in terms of volume and collaborative centrality, while countries with larger node sizes (e.g., Malaysia, Spain, South Korea) show active research participation and a high number of international co-authorships. On the other side, some countries (e.g., Slovenia, Uzbekistan) appear isolated or minimally connected, suggesting limited integration in the global research network. The cross-cluster connections show that collaboration is not limited by geography, indicating global interest and the interdisciplinary nature of ESG research.

The second Bibliographic coupling analysis, conducted using organisations as the unit of analysis and applying a threshold of at least five publications per organisation, regardless of citation count identified 356 out of 3286 organisations that met the criteria. The resulting network visualization map grouped these countries into four distinct clusters, based on a minimum cluster size of 10.

Figure 12. The Bibliographic coupling analysis, using organisations as the unit of analysis



Source: VOSviewer

Larger institutions, like Capital University of Economics, Xi’an Jiaotong University, Università Bocconi, Università degli Studi di Milano and Copenhagen Business School are central players in the Sustainability Reports (ESG) and Their Impact on the Stock Prices and Financial performance research domain. Università Bocconi and Università degli Studi di Milano are very close, which implyes shared sources and possibly co-authorship or regional cooperation. Cross-border clusters (e.g., EU and Chinese universities) show growing global interest in ESG themes.

Cluster 1, red (122 items) includes Università Bocconi, Università degli Studi di Milano, Democritus University of Thrace, represents European institutions with common citation behaviors, focusing on governance, and ESG in corporate finance.

Cluster 2, Green (96 items) includes Capital University of Economics, China Copenhagen Business School, Renmin University of China suggests a strong Asia-Europe scholarly network, around policy, economic modeling or ESG regulation.

Cluster 3 Blue (94 items) includes Xi'an Jiaotong University, Universiti Teknologi Malaysia, Gulf University, represents institutions in Asia and the Middle East, focused on technical, sustainability or development-related ESG research.

Cluster 4 Yellow (44 items) includes Excelia Business School France, Bucharest university of economic Studies, Romania, Faculty of comerce, Egipt, shows regionally-focused institutions forming newer collaborations or entering the ESG research space.

5. Discussions

We have observed that the mechanisms through which the ESG reports operate are multiple and interconnected, aligning with global research findings (Fatemi et al., 2018; Chen, 2023; Diwan & Sreeraman, 2023.)

Firstly, they reduce the information asymmetry, providing the investors with a clearer picture of the non-financial risks and how a company manages them. This transparency facilitates more accurate risk assessments and can contribute to a lower cost of capital (Dhaliwal et al., 2011; Flammer, 2021).

Secondly, the ESG reports function as a signal of the managerial quality and the long-term strategic orientation, thereby attracting institutional investors interested in sustainability and long-term value creation (Eccles et al., 2014; Albuquerque et al., 2019). Empirical evidence shows that high-sustainability companies significantly outperform their low-sustainability peers over the long term, both in terms of stock market returns and accounting performance (Eccles et al., 2014).

Thirdly strong ESG disclosures contributes to the building of trust and to reducing the reputational risks, fostering trust and enhancing firm value over time (Lins et al., 2017; Fatemi et al., 2018).

However, the impact of ESG reporting is not uniform and is mediated by several contextual factors. The industry sector, firm size, market maturity, and particularly the credibility and quality of disclosures play critical roles in determining the financial effects of ESG reporting (Kotsantonis & Serafeim, 2019). Superficial or misleading reporting, commonly referred to as "*greenwashing*", can erode investor confidence and generate negative market reactions (Amel-Zadeh & Serafeim, 2018; Yu et al., 2020). In this regard, adherence to international standards such as GRI, SASB, or the newly developed ISSB frameworks, along with emerging regulatory measures is vital for ensuring credibility, comparability, and ultimately, a positive impact on stock prices (Ioannou & Serafeim, 2015).

A preliminary statistical and bibliometric analysis using Scopus tools reveals a significant rise in research on the relationship between ESG (Environmental, Social and Governance) reports and stock price. While early publication activity (1994–2014) was minimal, a steady increase began in 2015, followed by a notable surge from 2018. The most dramatic growth occurred after 2020, with over 70% of all publications released between 2020 and mid-2025 — 19% in the first half of 2025 alone. This spike aligns with global crises, such as the COVID-19 pandemic and the Ukraine war, which have intensified interest in ESG disclosures as tools for understanding corporate resilience and sustainability (Broadstock et al., 2021).

From a geographical perspective, China leads with 688 publications, followed by the U.S., U.K., India, and Italy, indicating widespread global interest. China's dominance is further supported by funding and institutional data, with five of the top ten sponsors and affiliations being Chinese, highlighting both strong governmental support and institutional engagement in ESG-related financial research. Furthermore, this evidence reflects the strategic role of ESG in national policy and corporate governance research (Liu et al., 2022; Wang et al., 2024, Chen et al.,2023).

At the structural level, the multi-level citation and bibliographic coupling analysis offers a comprehensive view of the academic landscape surrounding ESG sustainability reporting and its impact on stock prices and financial performance. The document-level citation analysis, based on a threshold of 143 citations - the equivalent of the h-index- identified 140 highly influential articles. Through cluster analysis, the citation map highlighted key research groups and dominant authors shaping this evolving field. (Friede et al., 2015; Gillan et al., 2021).

Further, co-citation analysis, at both cited-reference and cited-author levels, demonstrates the intellectual structure and thematic alignment within the field. Using a 20 citation threshold, 134 references were grouped into four clusters, while 112 authors were categorized into six distinct clusters. These networks demonstrate how foundational works and leading scholars are interconnected, influencing the direction of ESG discourse.

The bibliographic coupling by country analysis of 77 countries reveals a globally engaged research community, structured into three main clusters. Western-centric countries like the United States, China, United Kingdom, and Spain lead in both publication volume and citation impact. Central and Eastern European and East Asian nations, including Poland, Romania, and South Korea, are increasingly integrated into global ESG research through expanding collaboration. Meanwhile, countries from South/Southeast Asia and the MENA region, such as India, Indonesia, and Malaysia, align their research agendas with development and policy priorities.

Key hubs — India, China, the U.K., and the U.S. — exhibit high collaborative centrality, while countries like Malaysia, Spain, and South Korea show strong international engagement. In contrast, less-connected nations such as Slovenia and Uzbekistan highlight untapped potential for broader inclusion in the ESG research network.

6. Conclusions

The detailed analysis of the academic literature confirms a clear trend: the sustainability reporting (ESG) has evolved from a simple compliance exercise to an essential strategic instrument, with a significant influence on the stock prices of companies listed on the capital markets. The empirical research conducted over the last decade largely converges on the idea that an increased transparency and an authentic commitment to the ESG principles are rewarded by the markets.

This analysis highlights a strong and accelerating academic interest in the relationship between ESG reporting and stock market performance, especially in the years following 2020. The growth in publications and citations reflects a broader shift in both investment behavior and corporate transparency, with ESG disclosures now seen as essential tools for navigating financial and ethical risks.

As regulatory frameworks tighten and global challenges persist, ESG reporting is increasingly central to financial evaluation and investment strategies. The dominance of journal articles and the concentration of contributions — particularly from China — underscore both scholarly rigor and regional leadership in this evolving field.

The analysis reveals a rich, dynamic, and globally distributed research ecosystem on ESG sustainability reporting and its connection to stock market behavior. Influential articles and authors form the backbone of the field are supported by strong co-citation networks and a growing number of international collaborations. The leading roles of countries like China, the U.S., the U.K., and India reflect their centrality in driving both research volume and scholarly impact.

The clear presence of both developed and emerging economies in this network suggests a growing recognition of ESG as a global priority. However, the limited connectivity of certain countries and institutions also highlights the need for broader inclusion and capacity-building efforts to ensure a more balanced and comprehensive global dialogue on ESG-related financial research.

In conclusion, the answer to the question "To what extent and through what mechanisms does the publication of the sustainability (ESG) reports influence the stock prices of companies traded on capital markets?" is that the influence is significant and predominantly positive if it is provided that the reporting is strategic, authentic, and of high quality, although operating through various informational channels and different risk perceptions.

The Limitations of our Study and the Future Research Directions

Any literature review, however comprehensive it is, presents certain limitations that must be acknowledged. The present work focused on analyzing the relationship between the sustainability reports and the stock prices of the listed companies, synthesizing the empirical results and mechanisms identified in the existing academic literature. However, the main limitation lies in the nature of a literature review: no primary empirical analysis was conducted; instead, only the results of other studies were synthesized and interpreted. This means that the reliance on the quality, methodology, and specificity of the included studies can influence the overall perspective.

Furthermore, although the emphasis was placed on the recent and influential articles, the rapid dynamics of the ESG field and the related regulations can lead to the constant emergence of new studies and perspectives that could not be fully covered when this work was prepared. The heterogeneity in the measuring and in the reporting of the ESG indicators, even within the international standards, remains a challenge, potentially influencing the comparability and consistency of the results from the primary studies mentioned here.

Based on these limitations, multiple future research directions emerge:

1. Some Contextualized Empirical Studies: There is a need for more empirical studies analyzing the impact of the ESG reporting in the specific capital markets, especially in the emerging ones, where the institutional and cultural context can differently influence the investors. Also, in-depth sectorial analysis could reveal different nuances in a particular industry (e.g., tech vs. energy), where the materiality of certain ESG factors differs.
2. The Impact of the Specific Regulations: A promising direction is to investigate the direct impact of the new mandatory regulations (for example in Europe) on the reporting quality and subsequently, on different markets reaction. How do these regulations influence the investment decisions and the company's behavior in the long term?
3. The Granular Analysis of the ESG Components: Future researches could explore in detail which of the three components (Environmental, Social and Governance) has the most pronounced impact on the stock prices and under what conditions. For example, is the impact of the climate risks (E component) stronger than that of the diversity policies (S component)?
4. The Quality versus the Quantity of Reporting: Another important direction is the development of more sophisticated metrics to assess not only the existence but also the quality, the credibility, and the authenticity of the ESG reporting. How can investors differentiate between a real commitment and a *green washing*? Qualitative or mixed methods studies could offer valuable insights in this regard.

5. The Role of the Investors' Perception: More studies are needed to directly survey the investors' perception and the decision-making processes, to better understand how they integrate the ESG information into their financial analyses and to what extent the behavioral factors influence the markets' reaction.

6. Deepen understanding of the causal links between ESG disclosures and financial performance.

7. Explore industry and region-specific ESG impacts.

8. Strengthen collaborative networks, particularly in underrepresented regions.

9. Analyze the effectiveness of ESG policies and reporting frameworks across different regulatory environments.

Addressing these research directions could contribute to an even deeper understanding of the complex interaction between the corporate sustainability and the capital markets, implicitly providing a more solid basis for the strategic decisions, both for companies and for investors and regulators. As ESG continues to shape investment decisions and corporate accountability, its academic examination is likely to remain both strategically important and globally relevant.

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