

Research Progress and Future Prospects of ESG: A Bibliometric Analysis

Kapil Shobhawani

PhD Research Scholar,
Department of Accountancy and
Business Statistics,
Mohanlal Sukhadia University,
Udaipur, Rajasthan, India.
Email ID: Kapilshobhwani1@Gmail.com

Dr Shilpa Lodha

Assistant Professor,
Department of Accountancy and
Business Statistics,
Mohanlal Sukhadia University,
Udaipur, Rajasthan, India

Abstract

Academic interest in ESG has increased significantly in the last few years. However, bibliometric and visualization research on this subject remains limited. The aim of this study is to ascertain the direction of ESG research from 2007 to 2022 and make an effort to provide an agenda for research for future studies. The Dimensions database is used to generate the data utilized for the present study. The study examines at both previous and current research problems with the objective to provide an overview of the ESG field and better understand its growth. As a result, to ascertain the current status of scientific research and map the intellectual framework of ESG in order to identify patterns and provide valuable data to academics focusing on related subjects. Although environmental, social, and governance research is still in its infancy, it has made tremendous progress over the last 15 years leading to a number of significant findings. In addition, this article can help academics who have already started ESG research to improve the efficiency of their scientific research by sorting through the existing literature. On the one hand, this study can help academics who are new to the field by providing them with direction that makes it easy for them to learn an understanding of the field and quickly access important and relevant information.

Keywords: ESG, Bibliometric Analysis, Publication Trend, Co-Occurrence, Dimensions

Introduction

The economy increases as well as the need that firms adopt social responsibility norms. Companies should take on a range of obligations moreover to aiming for high market value and profitability. Sustainable development, environmental, social, and governance, and other issues are intertwined with an organization's overall strength. Developing an ESG plan provides a corporation both business flexibility and long-term benefit (Ding and Levine, 2021). Corporations can make better use of their resources by investing more in social, community, and environmental capital (Gary, 2019). Organisations are expected to

benefit from ESG participation in relation to sustainability and efficiency (Piao et al., 2022). ESG raised concerns among stakeholders about company conduct, resulting in multi-fold developments in the field of ESG (Rajesh, 2020). The SDG and the United Nations Principles of Responsible Investment (UNPRI) have recently been adopted, which has pushed the ESG agenda (Linnenluecke, 2022). ESG helps companies fulfil their social and commercial objectives while making efficient use of their limited resources (Ullah, Muttakin, Khan, 2019). The core concept of bibliometric analysis is the scientific presentation of quantitative and qualitative data on the dynamic field of ESG (Singh & Zhang, 2022). The availability of user-friendly software and bibliographic data has led to an expansion of bibliometric study in various fields. Researchers can identify significant findings from earlier studies, emphasise the conceptual foundations of a particular topic, and predict prospective future study directions with the help of bibliometric analysis (Nejla Ould Daoud Ellili, 2022). The primary Purpose of research is to provide research progress and Future Prospects of ESG through a bibliometric analysis. Bibliometric research approaches can make it easier for ESG researchers to leverage large data to detect trends in ESG literature articles. By examining the network relationships between authors, nations, and journals as well as performing a keyword analysis, it is possible to conceptually and visually identify the development trends of this research area. Three sections comprise this study. First, to show the research's progress. Second, an overview of the theoretical framework for ESG research is given through a bibliographic coupling. Third, A few recommendations for further study are included in the article, which should help in understanding and identifying research problems.

Literature Review

Environmental, Social and Governance (ESG)

A study titled "Who Cares Wins" was the first to introduce the term "ESG" in an attempt to incorporate environmental, social, and governance factors into the capital market. Since then, interest in ESG has increased dramatically during the past 20 years (Kocmanova et al., 2006). While the concept of ESG has been around for a while, it wasn't

until the early 2010s that organisations began to take ESG challenges seriously. The triple-bottom-line strategy known as ESG (Environment, Social, and Governance) combines financial benefit with observance of social, governance, and environmental standards (Sharma, Lodha, Sharma, Ali & Elmezughi, 2022). In specifically, ESG criteria are data-driven components of sustainability that highlight an organization's performance in the quantifiable domains of the environment, society, and governance (Ogden et al., 2017). These dimensions stand for the environmental, social, and corporate governance responsibilities of organisations. Recently, the use of factors related to ESG as a tool for the decision-making process while making investments has become public on global financial markets (Bianchi & Walk, 2010). Environmental responsibility essentially refers to the notion that a business should lower its environmental cost per unit of output while simultaneously improving its environmental performance in both production and operation (Brooks and Oikonomou, 2018). Social responsibility means that a business must uphold the highest standards of social ethics, business ethics, and law (Lee, Cin, and Lee, 2016). It also involves valuing the company's internal relationship with the external society, which includes respecting human rights, relevant parties' interests, and industry improvements that improve the environment. The term "corporate governance responsibility" describes the methodical approach to management that the company should take in designing its existing organisational structure, dividing up shareholder power in a reasonable manner, and staffing the board of directors with people who can be given such authority (Aguilera, 2007). Reports on corporate social responsibility, sustainability, and governance are a few instances of current reports that typically address how to explain ethical, social, political, and environmental issues to stakeholders (Navi, 2014). Two international initiatives that were developed in response to the increasing demand for more comprehensive ESG are the United Nations Global Compact and the Global Reporting projects (Lydenberg, 2014). Non-financial performance can be significantly predicted by ESG. Businesses are under pressure to give stakeholders accurate and equitable

information regarding ESG (Whelan et.al.,2020).ESG elements can give investors a better knowledge of a company's long-term success, according to proponents of socially aware investing. There are many advanced ESG assessment methods available now in the world. Goldman Sachs, FTSE Russell, Thomson Reuters, MSCI, and other organisations have established a comprehensive ESG rating system.

Why Bibliometric Analysis?

In a bibliometric analysis, data on keywords, publications, references, and even author, national, and institutional productivity are analysed. Researchers can provide guidance and recommendations for future study by using bibliometric analysis to summarise the state of affairs and development trends in particular conditions or research topics (Lu et. al.,2019). In the multidisciplinary area of bibliometrics, all available literature is quantitatively analysed using statistical and mathematical methods(Hassan et.al.,2019).Bibliometric analysis provides an outline of highly cited articles related to sustainable finance and highlights leading researchers in the area in addition to prominent journals, institutions, and countries(Khan,2019).This study's main tool to assess the effectiveness and organisation of the ESG literature is the bibliometric technique. By visualising collaborative patterns in publications, journals, authors, institutions, and research components, bibliometric analysis seeks to expand the scope of research findings by identifying growing trends in a given problem (Donthu et. al.,2021). Bibliometric analysis helps researchers in selecting study topics and academic objectives, as well as in discovering academic sub-fields and related areas. Bibliometric analyses provide an in-depth understanding of modern ESG assessments and are becoming growing in importance as a result of the increased demand and interest in ESG research(Gao et. al.,2021). The availability of bibliographic data and user-friendly software has boosted the number of bibliometric studies in a range of areas (Basit et.al.,2021; Zhao et. al., 2022).The legitimacy of any research is contingent on the choice of the foundation, which should adequately encompass the issue under consideration (Granda-Orive et. al., 2013). These methods are widely

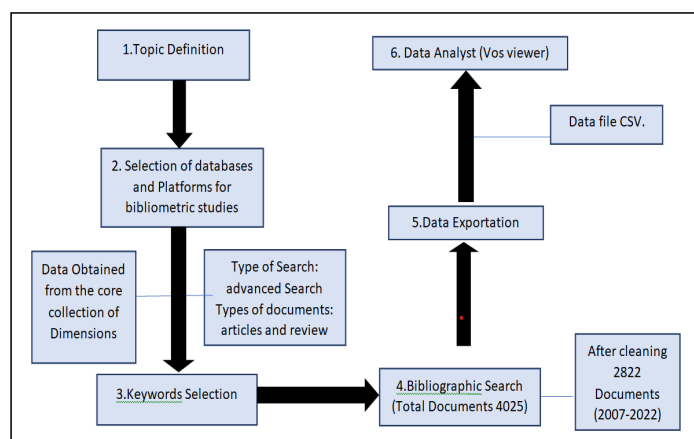
used in management and social science studies to identify new areas of research and show how important topics changed over time(Jia et. al., 2018).

Examine the Following Research Questions

1. What is the current trend in ESG?
2. Which leading countries are collaborating on ESG?
3. Who are the most influential authors of ESG?
4. What are the most prominent journals on ESG?
5. What are the most popular keywords and ESG topics among academics?

Research Methods

Figure 1: Flowsheet of Six Steps for Bibliometric Analysis



Data Cleaning

The initial data set is cleaned such that no word is repeated more than once in the bibliographic analysis.. According to the initial findings, 4025 documents were made public between 2007 and 2022. Without taking into account a specific time period, this assessment of the literature looks at the general development of ESG research. The analysis's focus area was "climate action, affordable and clean energy, gender equality, sustainable cities and communication, decent work and Economic Growth, Industry, Innovation, and Infrastructure, Reduced Inequalities, Quality Education, partnerships for the Goals," so the total number of published papers was 4025, with the remaining 2822 papers falling into this category.

Indicators

After cleaning the data from the literature, the indicators have been analysed. The two basic types of indicators used for bibliometric analysis in the literature are performance and scientific mapping. Publications and citations are the major indicators used in performance analysis to gauge productivity and influence. Scientific mapping, which aids in visualising material from the literature, vividly displays research trends and the field's organisational structure.

Database selection and search terms

The database is searched using the subsequent keywords: “ESG Disclosure”; “Environment” OR “Social” OR “Governance” OR “Corporate Governance” and “investment” OR “ESG score*” OR index” OR “rating provider” OR “sustainability reporting” OR “ESG reporting” OR “sustainability disclosure”. The Dimensions database has been recommended for use in bibliometric analysis in a number of research articles. Data exporting from the Dimensions database is more practical. A larger selection of papers in the topic of business and management are covered by the Dimensions database. This study search Dimensions database for “ESG” or “Environment Social Governance” in the title, abstract, keywords and text of the article.

Bibliometric Software for visual representation

VOS Viewer, Citespace, Pajek, BibExcel, and other bibliometric analytical software is accessible online. The free software VOS Viewer is often used in bibliometric research studies to generate maps of journals, authors,

citation information, and keywords that give the Viewer graphical diagrams. The graphical representation of bibliometric maps is highlighted by the term VOS, or visualisation of similarity. Additionally, maps are presented in a style that makes it easy for viewers to understand and grasp them (Van Eck & Waltman, 2010). This study looked at visual network images for co-citation analysis of cited authors, cited sources, author keywords, and other information

Results and Discussion

What is the current trend in ESG?

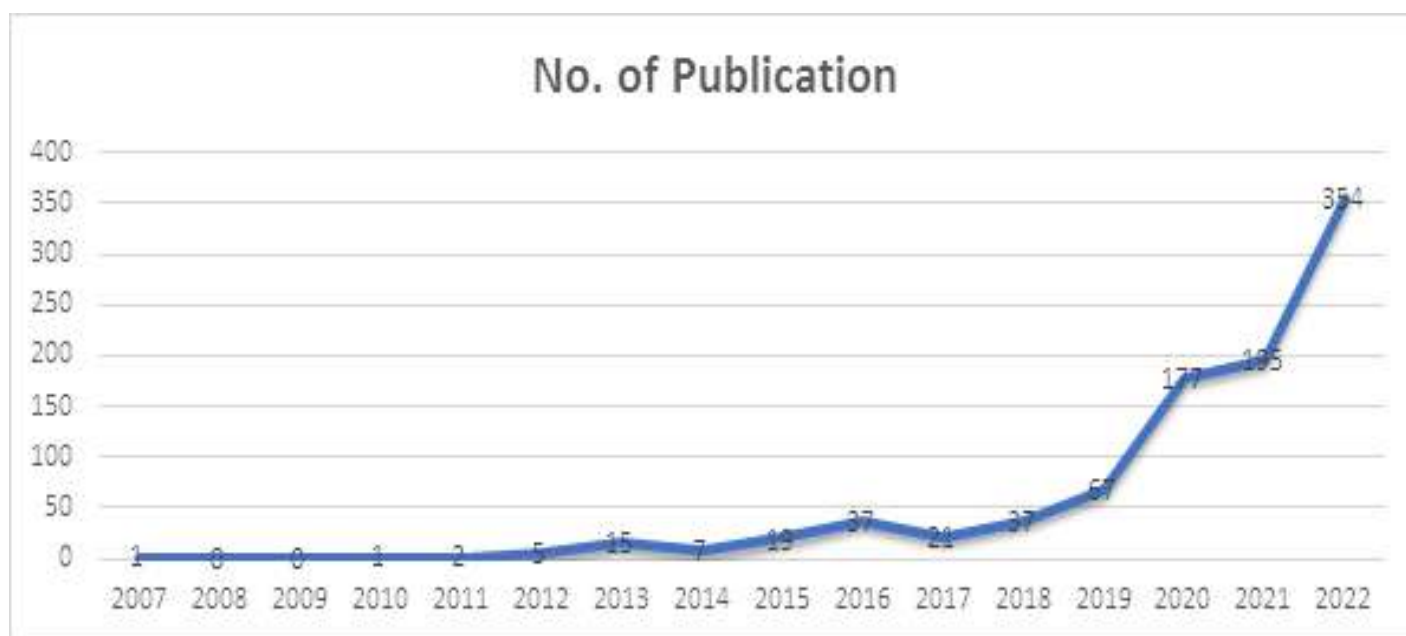
The trends of publications and citations in the ESG research field between 2007 and 2022. The data shown here show a general upward trend in the number of ESG-related publications. Table 1 and Figure 2 demonstrate that since 2017, there have been more papers on ESG-related topics. The number of annual publications in ESG fields was consistent before 2017. The number of articles increased sharply and continued to rise after 2017. It's important to note that the ESG publications from 2021 and 2022 received a lot of citations, which suggests they had a big influence. In addition, from 21 in 2017 to 354 in 2022, there were more ESG papers published. In just five years, there have been over sixteen times as many papers on pertinent themes. While there has been a continuous growth in article citations since 2011, the number of publications has also steadily climbed, suggesting that ESG is somewhat relevant in academia..

Table 1. Trends of Publications and Citations

Year	No. of Publications	Citations
2007	1	0
2008	0	0
2009	0	0
2010	1	0
2011	2	2
2012	5	3
2013	15	9
2014	7	19

Year	No. of Publications	Citations
2015	19	58
2016	37	130
2017	21	216
2018	37	473
2019	67	931
2020	177	2051
2021	195	3758
2022	354	7148

Figure 2. Publication Trends



Additionally, it demonstrates that academic interest in the subject of ESG has grown, indicating that it merits further investigation. The publishing pattern for ESG research from 2007 to 2022 is shown in the graph. In the Dimension database by 2022, there are 354 papers related to the ESG topic. 88% percent of all publications in the field of environmental, social and governance have been published within the last five years, a significant rise in publications since 2015.

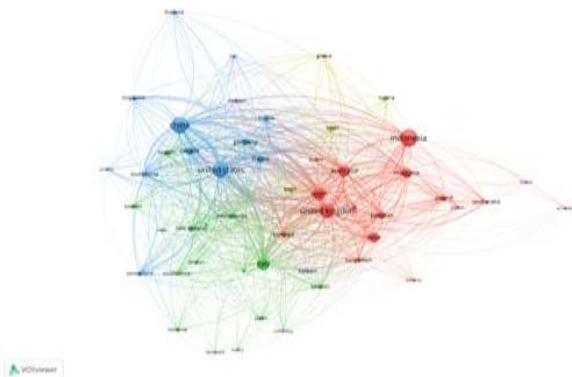
Which leading countries are collaborating on ESG?

The aim of this part is to analyse the nations that are most

influential and significant in the fields of environmental, social, and governance (ESG). Studies with an ESG theme have been published by developed and developing nations simultaneously. The top five nations for paper publication, as indicated by Table 2, are China, Australia, Spain, USA, and UK With 205 publications and 10163 citations, the United States is the nation that publishes the most in this field. With 219 publications and 6732 citations, China is third in the ESG area, behind the UK, which is the second most productive nation with 177 publications and 8990 citations

Table 2. Leading Countries in ESG

Rank	Country	Documents	Citations
1	USA	205	10163
2	UK	177	8990
3	China	219	6732
4	Australia	109	5040
5	Spain	116	4568
6	South Korea	21	3573
7	Italy	128	3248
8	Canada	61	2040
9	Malaysia	78	1886
10	France	42	1878
11	Germany	42	1841
12	Portugal	26	1826
13	Netherlands	23	1400
14	Indonesia	238	1174
15	Pakistan	46	1293
16	India	91	1021
17	New Zealand	24	885
18	Lebanon	13	845
19	South Africa	12	654
20	Poland	25	547

Figure 3. Countries in ESG Research

As shown in Figure 3, developed nations contribute to most of the top 20. The focus on local economic development, social responsibility, Environment and business ethics are

shows the ESG fields. Additionally, more references are made to papers published in USA, UK, Portugal, South Korea, the Netherlands, and Lebanon than in any other country, implying that these nations publish higher-quality articles.

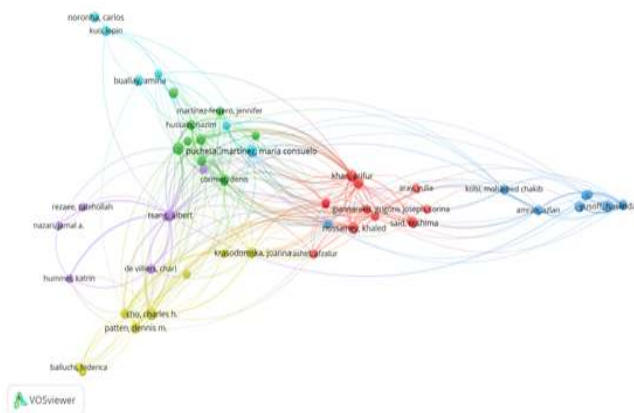
Who are the most influential authors of ESG?

This part includes a list of the most productive ESG authors in the business and economic fields. Table 3 shows that Pucheta-Martnez, Maria Consuelo is the author with the most published articles in this field, with 11 publications. The author of the frequently mentioned publications on this subject is Albert Tsang. With an average of 33.30 citations per paper, he has published 10 papers. The two most well-known authors in the ESG field are Tsang, Albert, and Pucheta-Martnez, Maria Consuelo.

Table 3. The Most Influential Authors

Rank	Authors	Documents	Citations
1	Pucheta- Martínez, María Consuelo	11	332
2	Tsang, Albert	10	3330
3	Khan, Arifur	10	1164
4	Cho, Charles	10	632
5	García- Sánchez, Isabel- Maria	10	441
6	Yusoff, Haslinda	10	179
7	Muttakin, Mohammad Badrul	9	1219
8	Hussainey, Khaled	9	249
9	Darus, Faizah	8	260
10	Krasodomska, Joanna	8	231
11	Martínez- Ferrero, Jennifer	7	383
12	Buallay, Amina	7	142
13	Said, Roshima	7	45
14	Noronha, Carlos	7	37
15	Michelon, Giovanna	6	980
16	Lanis, Roman	6	774
17	Devilliers, Charl	6	510
18	Kuo, Lopin	6	266
19	Jizi, Mohammad	6	238
20	Hussain, Nazim	6	235

Figure 4. Most Influential Authors



A total of five author clusters were formed, Cluster Blue, which includes writers Buallay, Amina, Kuo, Lopin, Noronha, Carlos, Maria Consuelo, Kolsi, Mohamed Chakib, Amran, Azlan, Yusoff, and Haslinda, had the most referenced publications expressly focusing on sustainability Disclosure, ESG Reporting, and ESG Disclosure (2014-2022). The red cluster, which included writers Khan, Arifur, Aray, Yulia, Giannarakis, Grigoris, Joseph, Corina, Said, Roshima, Hussainey, and Khaled. In

Cluster (Green), writers Hussain, Nazim, Cormier, Denis, and Jennifer wrote papers on corporate governance, assessment of sustainability reporting practises, business ethics, governance role, and other themes (2007-2010). In the case of the cluster (Yellow), publications mostly focused on CSR Reporting, company performance, and voluntary disclosure, with authors Krasodomska, Cho, Charles, Pattern, Dennis, Balluchi, Federica (2014-2016). As an instance of cluster (purple) papers, the writers Rezaee, Zabihollah, Nazari, Jamal, Hummel, and Katrin emphasised non-financial disclosure (2009-2011).

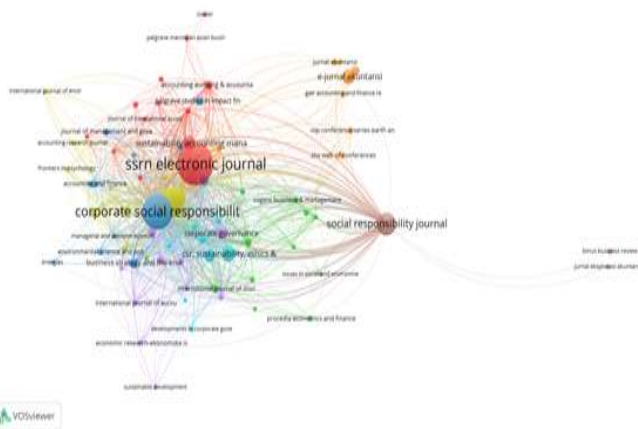
What are the most Prominent journals on ESG?

Table 4 shows that lists the top 20 journals with the most ESG related papers published. These journals publish 85% of the papers. The most publications are in the SSRN electronic journal, which has published 191 papers with 705 citations, followed by Corporate Social Responsibility and Environmental Management, which has 143 papers with 6557 citations. This demonstrates the publications' pioneering role in ESG related topics.

Table 4. The Most Prominent Journals

Rank	Journal	Documents	Citations
1	SSRN electronic journal	191	705
2	Corporate Social Responsibility and Environmental Management	143	6557
3	Sustainability	113	1692
4	Social Responsibility Journal	68	1658
5	Journal of Business Ethics	47	6532
6	CSR, Sustainability, Ethics & Governance	38	72
7	E-JurnalAkuntansi	33	26
8	Sustainability Accounting Management and Policy Journal	31	1077
9	Corporate Governance	24	1342
10	Journal of Cleaner Production	18	1530
11	Business Strategy and the Environment	17	1005
12	Advances in Economics, Business and Management research	16	9
13	Palgrave Studies in Impact Finance	15	7
14	MeditariAccountancy Research	14	239
15	International Journal of Management and Decision Making	13	955
16	Journal of Applied Accounting Research	12	343
17	Journal of Financial Reporting and Accounting	12	263
18	Accounting Auditing & Accountability Journal	12	948
19	Business Ethics the Environment & Responsibility	11	375
20	Journal of Accounting and Finance	11	173

Figure 5. Most Prominent Journal



Cluster Red includes SSRN Electronic Journal, Sustainability Accounting Management and Policy Journal, Palgrave Studies in Impact Finance, Accounting Auditing and Accountability Journal, Accounting and Finance etc. The purple cluster includes International Journal of Corporate Social Responsibility and Environmental Management, Disclosure, International Journal of Corporate Governance, Journal of Applied

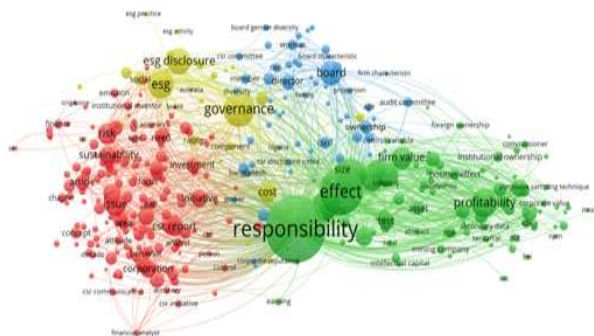
Accounting Research, Journal of Accounting Auditing and Accountability. Journals like Social Responsibility Journal, Procedia Economics and Finance etc. have been included in the green cluster. The Orange Cluster includes e-journals Accountancy, IOP Conference Series Earth and Environmental Sciences etc. The Brown cluster includes Business Ethics the Environment and Responsibility, Journal of Accounting and Finance, Advances in Economics, Journal of Business and Management Research.

What are the most popular keywords and ESG topics among academics?

The combination of words and topic trends were examined for the purpose to determine potential future research areas for ESG in the fields of management and economics. The most sophisticated beginning for a research report is its keyword list. By looking at the co-occurrence of phrases in a field, scholars can quickly identify research hotspots and future study directions for an academic issue. As seen in Figure 6, a term co-occurrence graph is made for this investigation using VOS viewer. Only 335 out of the 31850 keywords met the minimal requirement of having 30

instances of a term in order to be examined. In the context of scientific findings, keyword combination mapping creates a network of related topics.

Figure 6. Occurrence of Keywords.



This map shows how many times a word occurs based on the size of the cluster. The strength of co-occurrence between keyword pairs is determined by the separation between two networks and the thickness of the line that connects them. The node colours represent groupings of keywords that frequently occur together and can be thought of as extensive study areas for the topic



Table 5. The Important keywords

Cluster and Item	Occurrence
Cluster 1	
ESG Disclosure	2087
ESG Reporting	70
ESG Ratings	61
ESG Performance	274
ESG Score	251
ESG Investment	122
ESG Factor	253
Cluster 2	
Corporate Social Responsibility	1955
Firm Size	122
Firm Value	68
Profitability	87
Effect	588
CSR	518
CSR Reporting	325
CSR Activity	381
CSR Information	237
CSR Disclosure	58
Cluster 3	
Corporate Sustainability	851
Voluntary Disclosure	110
Supply Chain	66
GRI	215
Sustainability Reporting	251
Cluster 4	
Audit Committee	122
Female Director	72
Independent Directors	36
CEO Duality	48
Board Independent	105
Cluster 5	
Corporate financial Performance	115
Financial Disclosure	47
Environment Performance	181

Cluster 1: The major intent of this group (Yellow Cluster) was ESG disclosure, which includes ESG reporting, ESG performance, ESG score, ESG factor and component, ESG ratings, market value, firm value, corporate governance, and sustainability performance and firm performance. ESG disclosure is the disclose of information about corporate governance, social responsibility, and the environment.

Cluster 2: The major keywords of study for this cluster (Green Cluster) include corporation and financial performance, as well as how these factors affect foreign and government ownership, firm size, firm value, returns on equity, and corporate social performance. Profitability, Tobin's Q, and Return on Assets and further commonly used keywords in articles.

Cluster 3: The Red cluster's keywords primarily dealt with corporate sustainability, which includes concerns related to

the environment, economy, and climate change. They also covered innovations, initiative ESG standards, governance approaches, and sustainability development. This cluster includes terms that are associated with words in other clusters, such as development, risk, target, and emissions.

Cluster 4: Corporate Governance is the main topic of this cluster (Blue Cluster), which also includes Independent and Women Directors, Board Size, Board Members, and Ownership. When it comes to financial success, companies that prioritise environmental, social, and governance typically outperform their competitors.

Cluster 5: This cluster (the Purple Cluster) covers keywords mostly related to corporate financial performance, such as a company's financial status report throughout time to assess how profitable and successful the company is at generating income.

Table 6. Previous Research Keywords of ESG

S.NO.	Points	Keyword
1.	Corporate Governance Mechanisms	investors, investments decisions; CEO; duality; board; gender; diversity; size; members, committee; audit; directors; ownership; board composition.
2.	Methodology Approach	score; CSR; social; governance; environment; regression; multiple; linear; panel data; data analysis.
3.	Performance	negative; positive; association; significant; effect; disclosure; profitability; firm; level; relationship; ordinary; financial performance; firm performance.
4.	Sample	industry sector; stock exchange; listed companies; period; supply chain; developing; developed countries.
5.	Corporate Social Responsibility	sustainability; social responsibility; corporate sustainability
6.	Integrated Reporting	organizations; integrated; reporting; GRI; institutions; standards; framework; sustainability reporting; integrated thinking; reporting standards.
7.	Sustainable Development	development; sustainable; current; economic; standards.
8.	Stakeholder's Engagements	society; practices; quality.
9.	Theory	legitimacy; theory; institutions; stakeholders,
10.	leverage	leverage; financial leverage.

Table 7. Current Research Keywords of ESG

S.NO.	Points	Keyword
1.	Sample	listed companies; global; manufacturing companies; airline industry
2.	Stakeholders' Engagement	stakeholders; information; sustainability; practices
3.	Performance	ROA; ROE; Tobin's Q; Profitability; association; significant; financial performance.
4.	Corporate Governance Mechanisms	size; board size; women; investors; independent directors; women on board

S.NO.	Points	Keyword
5.	Investment Efficiency	investment; efficiency; intangible capital; intellectual capital.
6.	ESG Rating	rating; accounting; ESG rating
7.	Methodology Approach	methodology; design; approach; panel data; multiple regression;
8.	Environment Economics	climate; Change; risk; responsibility; literature
9.	Sustainable development	sustainable; finance; development; business; responsibility; sustainable finance.
10.	Corporate social responsibility	corporate; social; responsibility; practices.

Future Prospects of ESG

- (I) After the global tragedy caused by the COVID-19 epidemic, it would be interesting to look at it as a recent issue and examine how it has affected the amount of ESG disclosure and how committed businesses are to their stakeholders and the community as a whole.
- (ii) Information manipulation is a component of earnings management strategies. It would be beneficial to look at how ESG disclosure affects this conduct in order to assess company transparency.
- (iii) Most research on ESG disclosure focuses on publicly listed companies in various financial markets. Whereas, it will be fascinating to see the impact of ESG disclosure in various industries such as tourism and education, including sole proprietorships, small and medium-sized enterprises and family businesses as well as real estate industries.
- (iv) Because of the possible influence of ESG disclosure, future research exploring the association between corporate governance and ESG disclosure should consider competitive markets and other external processes. The analysis done so far has only shown internal mechanisms such as ownership structure and board of directors.

Conclusion

A review of ESG research progress and prospects for the future will provide by this study, using bibliometric analysis. The analysis found that studies in industrialised countries such as USA, China, United Kingdom, Italy, Spain, Australia, Germany, France and Canada was more common. There seems to be more research appearing from developing economies, such as India, Malaysia, Indonesia,

and South Africa, following the implementation of required and voluntary norms for corporate responsibility reports/sustainability reports/ESG reports/integrated reports. This study supports the assertion that ESG research is becoming more popular all throughout the world. Furthermore, scholars from non-Western and Asian countries, such as India, South Korea, Malaysia, and Indonesia, appear to have a significant portion in this sector. This study examines both past and present research issues to provide a better understanding of the current state of the ESG topic. The analyse of author citations helps in the identification of key academic participants in the domain. The study indicates that as global corporate, social, and environmental responsibility grows, developing nations are growing increasingly interested in ESG issues. In addition to focusing on shareholder profit, companies should also prioritise the environment, human rights, gender equality, and anti-corruption efforts. This will help to advance the interests of all stakeholders. PuchetaMartnez, Mara Consuelo, Albert Tsang, khan, arifur are the most productive authors. They each published 11 articles, 10 articles, and 10 articles, respectively. An interesting statistic is that 990 publications published content about ESG. The top three ESG journals are: SSRN electronic journal, Corporate social responsibility and environmental management, and Sustainability. Based on the review of literature, keywords such as sustainable development, investment, stakeholder engagement, management methods, and environmental economy are current ESG issues. As a thorough evaluation approach for non-financial business performance, ESG may also be very helpful in the right research that is needed for corporate mergers and acquisitions. this research can help researchers who are unfamiliar with the subject matter by giving them pointers that will enable them to quickly acquire essential

information and acquire a basic understanding of it. Analysis this study can help researchers who have already begun to investigate ESG improve the efficacy of their scientific studies. Researchers wishing to explore ESG further in their research will probably find a wealth of information in this paper.

References

- Aguilera, R.V., Rupp, D.E., Williams, C.A., Ganapathi, J. (2007). Putting the S back in Corporate Social Responsibility: A multilevel theory of social change in organizations. *Acad. Management Review*, 32, 836–863
- Brooks, C., Oikonomou, I. (2018). The Effects of Environmental, Social and Governance Disclosures and Performance on Firm Value: A Review of the Literature in Accounting and Finance. *Br. Account. Rev.*, 50, 1–15.
- Bianchi, R. J., Drew, M. E., & Walk, A. N. (2010). On the responsible investment disclosure practices of the world's largest pension funds. *Accounting Research Journal*, 23(3)302–318.
- Basit, S. A., Ahmed, S., Latif, M. T., Khan, M. A., & Gulzar, A. (2021). Bibliometric Analysis of Digital Divide Using Web of Science. *Library Philosophy and Practice*, 1-22
- Ding, W., Levine, R., Lin, C., Xie, W. (2021). Corporate Immunity to the COVID-19 Pandemic. *Journal of Financial Economics*, 141, 802–830.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285-296.
- Gary, S.N. (2019). Best Interests in the Long Term: Fiduciary Duties and ESG Integration. *SSRN Electron. Journal*, 90, 731.
- Gao, S., Meng, F., Gu, Z., Liu, Z., & Farrukh, M. (2021). Mapping and Clustering Analysis on Environmental, Social and Governance field a Bibliometric Analysis using Scopus. *Sustainability*, 13(13), 7304.
- Hassan, S. U., Visvizi, A., & Waheed, H. (2019). The 'Who'and'What'in international migration research: Data-driven analysis of Scopus-indexed scientific literature. *Behaviour & Information Technology*, 38(9), 924-939.
- Jia, F., Li, Y., Cao, L., Hu, L., & Xu, B. (2022). Institutional Shareholders and Firm ESG Performance: Evidence from China. *Sustainability*, 14(22), 14674.
- Kocmanova, A., Nemecek, P., & Simberova, I. (2006). Qualitative Relationships between the Environmental, Social and Governance (ESG) performance indicators for supporting the decision-making. WMSCI 2006.
- Lee, K.H., Cin, B.C., Lee, E.Y. (2016). Environmental Responsibility and Firm Performance: The Application of an Environmental, Social and Governance Model. *Bus. Strateg. Environ*, 25, 40–53.
- Linnenluecke, M. K. (2022). Environmental, Social and Governance (ESG) Performance in the context of multinational business research. *Multinational Business Review*, 30(1), 1–16.
- Lydenberg, S. (2014). Emerging trends in environmental, social, and governance data and disclosure: Opportunities and Challenges. Private Sector Opinion - *Global Corporate Governance Forum Publication*, 32, 16- 29.
- Navi, B. S. (2014). Presentation of Financial and Non-Financial Performance in Integrated Reporting: A Study. *International Journal of Applied Financial Management Perspectives*, 3(1), 751-754.
- Ellili, N. O. D. (2022). Bibliometric analysis and systematic review of environmental, social, and governance disclosure papers: current topics and recommendations for future research. *Environmental Research Communications*.
- Piao, X., Xie, J., & Managi, S. (2022). Environmental, Social, and Corporate Governance activities with employee psychological well-being improvement. *BMC Public Health*, 22(1).
- Rajesh, R. (2020). Exploring the Sustainability Performances of Firms using Environmental, Social, and Governance Scores. *Journal of Cleaner Production*, 247.
- Sharma, R. B., Lodha, S., Sharma, A., Ali, S.,

- &Elmezughi, A. M. (2022). Environment, Social and Governance Reporting and Firm performance: Evidence from GCC Countries. *International Journal of Innovative Research and Scientific Studies*, 5(4), 419-427.
- Singh, A. K., & Zhang, Y. (2022). Understanding the Evolution of Environment, Social and Governance Research: Novel Implications from Bibliometric and Network Analysis. *Evaluation Review*, 0(0).
 - Ullah, M.S., Muttakin, M.B., Khan, A. (2019) Corporate Governance and Corporate Social Responsibility Disclosures in Insurance Companies. *International Journal of Accounting Information Management*, 27, 284–300.
 - Whelan, T. U., Atz, H. V., & C. Clark, "ESG and Financial Performance: Uncovering the relationship by aggregating evidence from 1,000 plus studies published between 2015-2020," NYU | STERN Report 2021.
 - Zhao, X., Nan, D., Chen, C., Zhang, S., Che, S., & Kim, J. H. (2023). Bibliometric Study for Environmental, Social, and Governance Research using CiteSpace. *Frontiers in Environmental Science*, 2534.
 -