

A Bibliometric Analysis of ESG Investment Literature: Evidence from SRI and Other Related Terms

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ABSTRACT: In order to investigate research trends, influential figures, and new themes in sustainable finance, this study does a bibliometric analysis of ESG investments. It finds influential works and theme by analyzing citation networks, and keyword co-occurrence using data from Scopus. The study offers suggestions for future research that could explore correlation between subtopics while carrying out clustering investigations, including co-citation using different types of sources. In addition to adding to the growing conversation on sustainable finance and responsible investing, this study provides insights for investors, politicians, and scholars by outlining the intellectual framework of ESG research.

KEYWORDS: Environmental, Social, and Governance (ESG), Impact Investment, Sustainable Investment, Responsible Investment, Socially Responsible Investment, SRI, investors perception.

I. INTRODUCTION

Recently, a change has been seen in the flow, pattern, and structure of investments, particularly with a specific thrust on the sustainability of investments and ESG investments. This transformation is seen at global as well as domestic level, adopted by several economies in the world. It is evident that investors are moving beyond the traditional norms of financial statements and placing more weightage to ESG investments while taking investment decisions (**Bhavani & Sharma, 2019**). It appears that traditional financial indicators used to assess investments are insufficient and fail to provide required information to investors and consumers other than financial measures. It is also evident that traditional investments have always been seen as a narrow-self interest and have almost left adverse impact on environment (**D'Souza, 2020**), therefore there is a need to have check on them. Environmental, Social, governance (ESG) factors have become key factors that are considered while taking investments decisions (**World Bank, 2018**).

The process of decision making and analysis of investment are exceptionally influenced by the sustainability of investments and adoption of Environmental, social and governance factors and norms. In these forms of investments there is always a choice between simple profit maximization and ESG integrated profit maximization options. Since the 21st century, ESG investments, also called as socially responsible investments, have experienced rapid growth. To be more specific, The United Nations (UN) took the initiative in this area in 2004, which is when the concept of ESG investing emerged. ESG incorporation in businesses can be beneficial for the firms in many ways, including improved efficiency and productivity as well as assistance with long term risk management. As per the literature, companies that incorporate ESG principles have produced more profits compared to those not complying with the ESG principles (**Korwatanasakul & Majoe, 2019**). A concentration on ESG investments could improve corporate sustainability over time, even while a focus on ESG investments might yield huge advantages in short term. A triple bottom line strategy is generally followed by these investments, which blends monetary gains with environmental and social standards. Although, Social and environmental are important factors, it is important to see how they integrate with the third factor that is governance.

One of the important constituent of sustainable investment is transparent ESG reporting and disclosure of data. While ESG reporting and disclosure have a legal standing in many economies, they are discretionary in nature in many others. The reporting and disclosure of data are essential for investors and stakeholders to understand corporate houses' long-term business and investment strategies and evaluate their sustainability quotient. This information has become important for investors to manage

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their investment risks and understand companies' strategy and purpose (PricewaterhouseCoopers, 2020). however, several scoring and rating mechanism have developed in the past to offer an understanding of the ESG performance of companies in varying degrees and forms across nations.

There is an expectation that business entities will play an important role and bear significant social and environmental responsibilities for taking appropriate measures to minimize the mounting environmental and societal crisis. In fact, growing environmental and climate concerns, such as the increasing GHG emissions, sea-level rise, increasing frequency of heat waves, and unmanageable waste generation, are posing threats to the sustainability of any economy. For instance, India is one of the most vulnerable countries to climate change and natural disasters (Eckstein, Künzel, Schäfer, & Winges, 2019). Similarly, a host of social factors, such as the violation of human rights and labor rights, rising cases of child labor, cases of gender inequality, and occupational health and safety concerns, have reiterated the importance of adhering to ESG principles in investment decision-making processes. Researchers have highlighted the increasing need to inform consumers and investors about the adverse impacts of exploitative labor practices, poor working and health conditions, and poor environmental management standards and practices of corporations and demanded that governments tighten the environmental standards and social policies for corporations and motivate them to adopt responsible business behavior and practices (Bansal & Gangopadhyay, 2013); (Ervin, et al., 2012); (Khanna & Speir, 2013).

Several key initiatives of the UN have clearly demonstrated the importance that it assigns to ESG integrated investments at the global scale. Initiatives such as the Principles of Responsible Investment (UNPRI), UN Global Compact, and UNEP Finance Initiative (UNEP-FI) are evidence of such thrusts toward sustainable global transformation through ESG investments. More importantly, the declaration of the SDGs is a testament to such a global focus on ESG investments and the sustainability of investments. In addition, the SDGs reportedly place private investors in the central position in arresting and minimizing the growing environmental and social problems (Nemoto & Liu, 2020). Several of these goals are likely to be met through private investments; hence, ESG investments can be a game changer in meeting the SDGs (Korwatanasakul K. , 2020). Public financing sources alone arguably cannot meet the identified challenges through the SDGs; rather, they require active support from and participation of private investors.

Though ESG investments are at a very nascent stage, it is increasingly gaining traction at the global level. The need to achieve sustainable development goals, has pushed private sectors to focus on climate- friendly investments. Nations have unambiguously identified the need to integrate climate and financial policies and to find factors driving ESG investments in the economy. However, the ESG investments in the context of developing nations have received scant research attention so far. There is lack of scholarly literature in this area, though some efforts have taken place under the larger umbrella of the sustainability of the corporate sector.

The main objectives of the paper are to know the evolution in research of ESG and other related factors and to discuss the internal relationship between the journals, authors, countries and citations. To analyze the most cited papers and suggest the insight information about this field to make it easy for the government and stakeholders to make policies and investment decisions accordingly.

To achieve the above objectives, we have first discussed the publication trend in ESG and related factors after which we have discussed about the top 10 keywords, that could meet required threshold while acquiring the data, additionally we have talked about the citation structure, country analysis ,most cited papers were also discussed in detail to know the recent themes and trends for future studies, finally we have discussed about the top 10 most cited journals and their rankings along with their publication, concluded the papers with the results of the study.

II. LITERATURE REVIEW

Hamilton et al. (1993), in their paper favor "doing well while doing good?" including several other authors. The paper also discusses about the return where he found that ESG investments do not necessarily give good returns. The literature has failed to find any evidence in favor of

better return of ESG investment than conventional investing, that proves the previous findings. Hence, there must be some other non monetary value of investing in ESG that keeps investors motivated. Ethical & social values may motivate investors to invest in ESG for some non financial benefits. They invest in those kinds of stocks to match with their ethical and social values that gives them something beyond good returns as suggested by Renneboog et al. (2008). This has also been supported by the fund flows of investors indicating the priority given to the non monetary benefits in their investment decisions that has been shown by Benson and Humphrey (2008) and Renneboog et al. (2011) in their papers. These problems have been documented in earlier literature on ESG investing Chegut et al. (2011). The studies that have tried to explain the issue, such as Revelli and Viviani (2015).

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However, recently the literature has concluded that the returns have not shown any relevance with the ESG or conventional investment. It can be said that there is no difference between the ESG and conventional Investments (**Humphrey and Lee, 2011; Friede et al., 2015; Revelli and Viviani, 2015**). But the performance of investments is still a concern for authors whether they perform well compared to conventional investments or not.

A study was conducted to know the detailed mapping of CSR norms among Indian companies, it is found that the firms are largely investing in social sectors covering health care, education, community development, along with environment protection initiatives, gender equality, skill development projects and so on (**Bansal & Gangopadhyay, 2013**).

Researchers have highlighted the increasing need to inform consumers and investors about the adverse impacts of exploitative labor practices, poor working and health conditions, and poor environmental management standards and practices of corporations and demanded that governments tighten the environmental standards and social policies for corporations and motivate them to adopt responsible business behavior and practices (**Bansal & Gangopadhyay, 2013**).

Most of the research studies on ESG investment have been conducted in developed countries. In developing nations, socially responsible investment is a new market and at a nascent stage. SRI, ESG investments, and other ESG related factors have been studied by a few researchers. (**Chelawat & Trivedi, 2013**) In their study, the risk-return performance of a portfolio based on ESG criteria was analyzed from 2008 to 2012. The purpose of this study was to analyze the performance of the portfolio that incorporate ESG as selection criteria while choosing an instrument. It was concluded that the performance of the ethical investments surpassed the benchmark portfolio when ESG factors were considered while making investment decisions. (**Murthy, V, & V, 2014**) conducted a study in India to determine whether the socially responsible companies perform well or not, in terms of stock market returns and price discovery compared to non ESG firms. The authors concluded that for the whole period of study, socially responsible companies performed better than general companies in terms of price discovery and returns. Similar results were found by (**Tripathi & Bhandari, 2015**). They researched India during the period 2009–2014 to compare the performance of general mutual funds with the performance of ethical mutual funds and S&P BSE Shariah 500 Equity Index as the benchmark index. The authors concluded that ethical funds outperformed their counter general mutual funds and their benchmark index too. Investors were well rewarded with higher returns for their ethical investment choices in the Indian market.

Several studies have tried to address the question of what investors perceive of socially responsible investment (**not only Rosen et al. 1991 but also McLachan and Gardner 2004; Nilsson 2008; Beal and Goyen 1998**), however they could only find the views of the investors who actually invest in rely solely on the views of investors who already invest in SRI funds. A few (**Thomas C. Berry & Joan C. Junkus 2012**) of them have used a reliable dataset of 5000 investors, this includes all type of investors whether they used SRI criteria in their investment decision or not.

It is important to understand the perception of Investors and public on ESG to gain their support for framing a better policy, promoting sustainable investment, to have a standardized ESG framework and advancing ESG actions (**Muyang Liu, Xiaowei Luo, Wei-Zhen Lu, 2022**). Not only gaining support or knowing the perception but making them aware of the ESG is also an important factor to be considered.

In order to fully understand and identify the various kinds of ESG investment in terms of its

Categorization, terms, tactics and actual application, a study was conducted by **Sandberg et al. (2009)**. It was found that there was a considerable amount of variation in the terms used in ESG investing, which was associated with regional differences in culture and ideology. Moreover, stakeholder's values, norms, and beliefs were served as means to explain techniques and practical differences. Despite the demand for standardizing language and process as well as norms of practice, investors respect cultural and ideological variation, thus ESG investment is going to remain broad.

Several studies have found that the investing cost of ESG more compared to traditional investing. This might, depends on how ESG investing strategies are implement and what amount of money is invested. ESG investors anticipate a price for it i.e. the cost. This can be inferred from ESG investing and directly witnessed in survey of ESG investors, many studies on ethical investors have revealed a tradeoff between principles and money (**Lewis and Mackenzie, 2000**). This is aligned with the actions of investors; it has been found true after analyzing the fund flows. (**Renneboog et al., 2008**). All things considered, Study on cost benefit tradeoff in ESG investing is an important area to be studied in future.

The potential impact of ESG investing is still a debate as the literature has shown a contradictory view. Till date, it has not been put well for addressing the concerns related to climate change. Positive impact of ESG investing is possible only with some of the additional measures that are important to be considered. Some of the measures include, regulation, disclosure norms, behavioral changes, standard framework for reporting and pricing of co-benefits.

The emerging markets have limited literature on ESG investments, focusing mainly on two themes: Impact of ESG investing on performance and culture. Although, the research has been limited on ESG investing, the studies have provided some relevant insights for investors on ESG investing. For instance, **Ortas et al. (2015)** says that, it was difficult to conduct an investigation on

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ESG in Brazil as these issues were a bit complex there due to financial crisis. A deep analysis of ESG and its characteristics in these emerging markets and in different market conditions can help us to know more about this topic. It is evident from the research that there are differences in performance related to different ESG indicators (**Scholtens, 2010**). Exploring the connection between these ESG indicators and types of investors, would be beneficial in future as it could help in revealing the preferences of different types of investors. It would further help in constructing portfolios that can have a personalized ESG exposure.

III. METHODOLOGY

Bibliometric analysis has been used to analyze the information on authors, citation, co-occurrence of keywords and countries that have contributed to the ESG research. The database used for the analysis has been taken from the Scopus. VOS-viewer was used to represent the data through different charts, graphs and diagrams. VOS means visualization of similarities, it highlights the graphical representation of maps. Maps are displayed to be used easily for interpretation, and makes it understandable by the viewer. The direction of a research area is easily identified through the bibliometric mapping approach, as it provides visualization of both performance analysis and science mapping. This study is the analysis of co-citation of cited sources, cited authors, author keywords etc. through visual network images.

The database that has been used in this study is taken from the Scopus, one of the best sources for this kind of analysis. It does not require any expertise to use. The keywords "ESG" OR "Environmental, Social, and Governance" AND "Impact Investment" OR "Sustainable Investment" OR "Responsible Investment" OR "Socially Responsible Investment" OR "SRI" OR "investors perception" were used for search on Scopus, on the 4th of September, 2024.

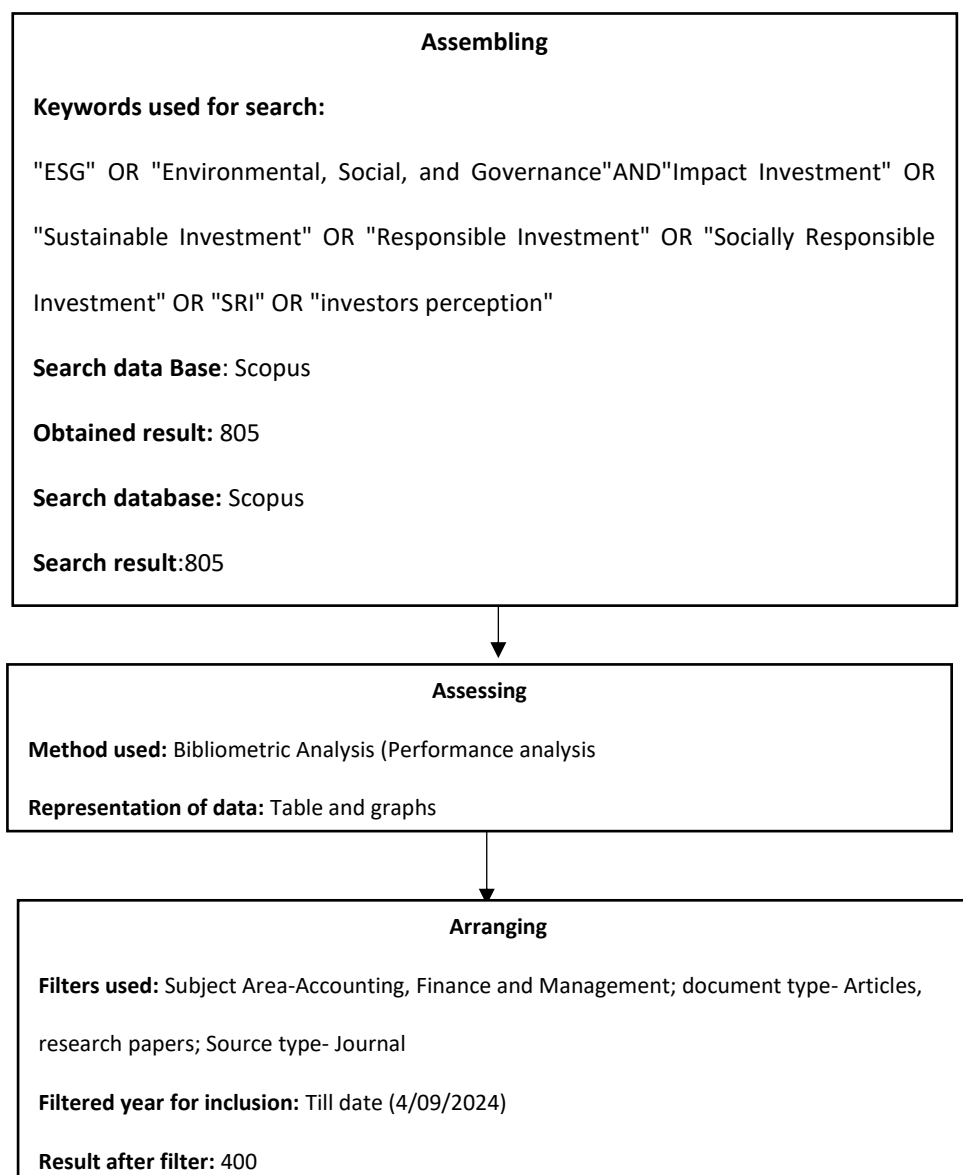


Figure: 1: Selection process for including articles in the study

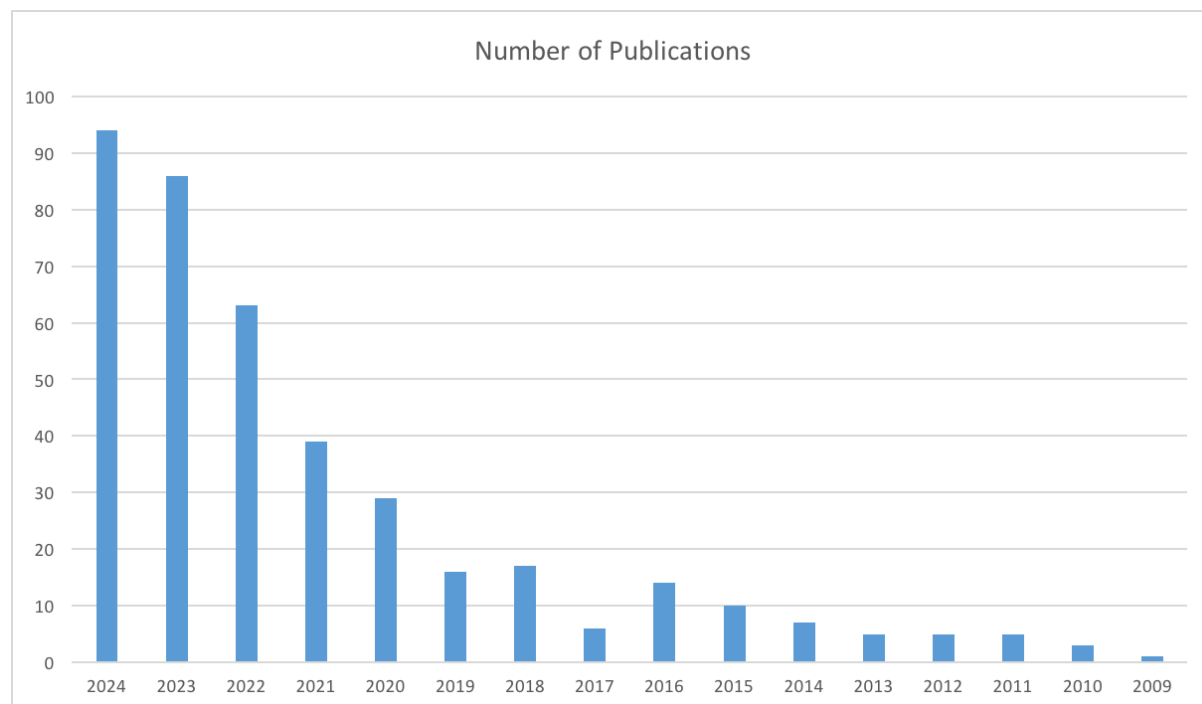


Figure 2: Yearly publications on ESG from 2009 to 2024

IV. FINDINGS AND DISCUSSION

A. Analysis of publications

The main purpose of publication analysis is to know the origin and evolution of the research topic. There has been a significant change in the publications in the last ten years. Figure one

shows the trends in publications. The number of publications have increased drastically in the last few years. It is because of the growing awareness of sustainability amongst stakeholders. A growing acceptance of these terms in the last few years and concern for climate change has made companies to be more responsive and responsible towards environment, society, and governance. In 2009 the number of publication was one, followed by 2010 (3), 2011(5) ,2012 (5), 2013 (5) and it was 7 in 2014, after which the number of publications have started increasing as it can be seen in the graph, it was 10 in 2015 and 14 in 2016. There is a drastic change in publication after 2020 with a downfall in 2017 (6), However, there is no significant change in publications in 2018 (17) and 2019 (16). Change in publication can be seen from 2020 (29), thereafter the growth is consistence, as it was 39 in 2021 and it became 63 in 2022, followed by 86 in 2023 and 94 in 2024.

B. Analysis of keywords

Analysis of keywords has been conducted to know the frequency of the important terms related to ESG investments. Analysis was done with the help of VOS-viewer, the minimum number of occurrence of the keywords was given as 5. Out of 1,343 keywords only 72 could meet the threshold. Keywords analysis is a method to understand the link between the research topics and it becomes easier to discover the research hotspots and research structure. As per the table analysis the term “ESG” has appeared 118 followed by “Socially responsible investment”, “sustainability”, “corporate social responsibility”, “sustainable investment” have appeared 47, 45, 45, 40 times respectively. Table I shows the list of top 10 keywords.

These terms have been used interchangeably in many papers, this is evident from the frequency of these terms. There are other related factors that are connected to these terms, this can be seen in the given network diagram. Some of the terms like, ESG ratings, ESG reporting have not been explored much. The role of AI in ESG and sustainability can also be explored as the literature found in these areas are limited. ESG score, and ethical investment are another factors that can be explored in this area as can be seen in network diagram.

ESG investing has become most important recently. The studies surrounding ESG investment strategies are a significant topic within academic literature. Asset managers have started including ESG into their investment decision, however a favorable regulated market in this area is required to make businesses and investors to incorporate ESG in their investment decision to achieve sustainable goals. It is imperious to improve the system for the discourse, evaluation, and to advance the development of regulatory framework, disclosure mechanism and voluntary discourse pertaining to ESG investments.

Table I: Top 10 keywords

Rank	Keyword	Occurrences
1	ESG	118
2	Socially responsible investment	47
3	Sustainability	45
4	corporate social responsibility	45
5	sustainable investment	40
6	sustainable Development	36
7	Responsible investment	35
8	SRI	34
9	Investment	33
10	Environmental	30

This is evident from the network diagram that the factors affecting ESG are related to firm's ESG choices, that includes ESG reporting, ESG disclosure and self regulatory framework. However, it is not clear whether ESG performance is affected by the well governed managerial decisions. In the majority of the research papers, internal governance has regarded as a significant variable that reveals the internal dynamics and psychological frameworks associated with ESG reporting and disclosure.

ESG is a new concept that has evolved recently and has become significant in twenty-first century. It encompasses the triadic pillars of environmental, social and governance factors. Among these factors, environmental factors initially lacked substantial recognition. However, recently has become a major concern due to change in climate. Many studies have shown how environmental aspects related to climate change are considered in the organizations regardless of the type of industry.

Table II: Top 10 countries by number of publications

Rank	Country	Documents	Citations
1	United States	44	1631
2	India	38	417
3	France	35	939
4	Germany	34	1956
5	Italy	34	785
6	United Kingdom	33	767
7	China	33	503
8	Australia	27	918
9	Spain	24	902
10	Canada	15	627

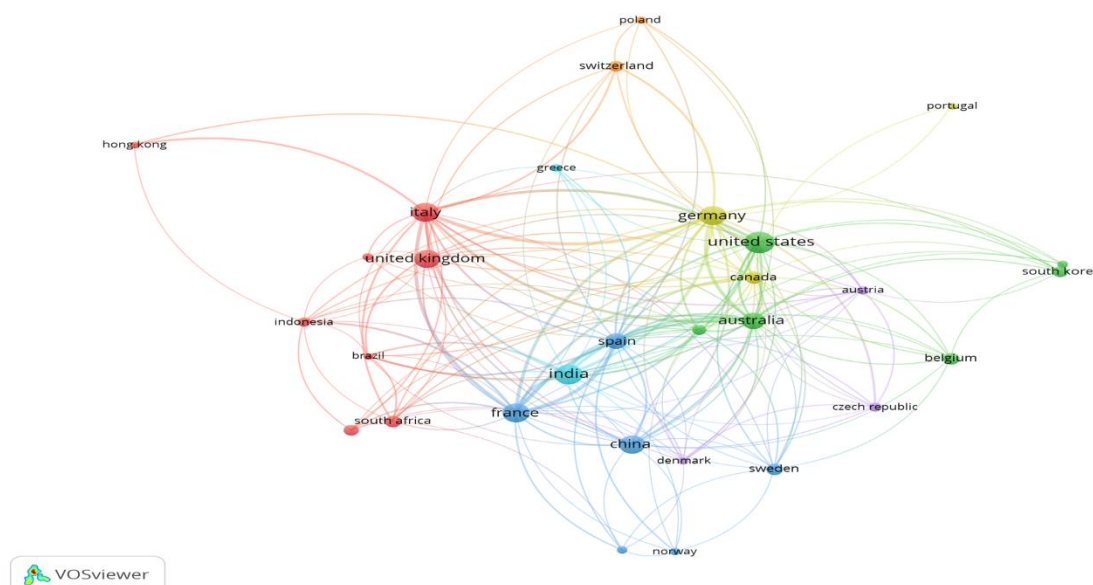


Figure 3: Network analysis of publications based on countries

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C. Analysis of top 10 economies in publication

Figure 3 represents the top countries in publication in ESG. It can be seen that United States is one of the most influential economies in publication. It has been ranked first followed by India (38), France (35) and Germany (34) with the most cited papers than Italy that has same number (34) of publications. The United Kingdom and china, both have same number of publications, however, United Kingdom leads in number of citations. Table 2 shows the top 10 most influential economies, including developed and developing economies. Developing economies lack in publication as they are still at early stage. Whereas, developing countries are at advance stage of research and adoption in ESG. They have ESG research universities that are working towards achieving sustainable development goals. United States has been ranked first with 44 publications, though it did not appear in the top five in the journal ranking. Being a developing nation India has secured second rank but has no journal in the top 10 journals. India being a developing nation is at a nascent stage in this field.

There are several reasons to why a particular nation is publishing more documents than others, like, the reporting practice, disclosure norms, difference in legal pressure, different framework, technological advancement, ESG regulation. Reporting practices in developed economies is better than developing economies due to cost factor, hence less developed countries have limitations in disclosure and reporting practices. Many developing countries have done better in publication in spite being behind in adoption of ESG in their businesses.

Table III: Top 10 most cited authors

Sr. No.	Author	Paper Name	Citations
1	Drempetic (2020)	The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review	500
2	Nofsinger (2014)	Socially responsible funds and market crises	342
3	Busch (2016)	Sustainable Development and Financial Markets: Old Paths and New Avenues	230
4	Borleitner (2015)	Measuring the level and risk of corporate responsibility - An empirical comparison of different ESG rating approaches	214
5	Larcker (2020)	Where's the greenium?	200
6	Widiyawati (2020)	A systematic literature review of socially responsible investment and environmental social governance metrics	192
7	Auer (2016)	Do socially (ir)responsible investments pay? New evidence from international ESG data	184
8	Billio (2021)	Inside the ESG ratings: (Dis)agreement and performance	165
9	Feng (2022)	ESG rating and stock price crash risk: Evidence from China	156
10	Barko (2022)	Shareholder Engagement on Environmental, Social, and Governance Performance	155

D. Analysis of top 10 papers

Citations help in understanding a research topic, which helps researchers and academicians to understand the future research direction and trend. From figure 2 it is evident that the research on this topic gained momentum post 2019. Hence the number of citations have also increased

The highest number of citations for the paper “The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review” by Drempetic (2020) with 500 citations. Followed by Nofsinger (2014) and so on.

The first highest cited paper ‘The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review’ by **Drempetic (2020)** highlighted the relationship between the firm size and ESG score and has shown concern towards the measurement of corporate social responsibility, as there are no standards in rating criteria for the rating agencies.

‘Socially responsible funds and market crises’ by **Nofsinger (2014)** talks about the performances of SRI funds and conventional funds. They concluded that during crises SRI funds have performed better than conventional funds. However, it is not always true as it was seen during COVID-19 pandemic and Russian-Ukrainian war, as the performance of these funds are not consistent post crises

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‘Sustainable Development and Financial Markets: Old Paths and New Avenues’ by **Busch (2016)** is ranked third, it talks about the influence of the capital market on sustainable development as it plays an important role in capital allocation. Financial market is extensively recognized for promoting sustainable development, as it helps in mobilizing capital for sustainable projects and integrating ESG in investment decisions.

The paper ‘Measuring the level and risk of corporate responsibility - An empirical comparison of different ESG rating approaches’ by **Bornfleitner (2014)** compared the ESG ratings by three different rating agencies like Bloomberg, KLD, and ASSET4, and found significant difference in rating criteria and measurement methods. They have also highlighted the difference in their method for allotting the score to the factors, risks associated with CSR.

Larcker (2020) in his paper, which is ranked fifth in the list talks about the ‘greenium’, which means the price benefit associated with the green investment or green bonds. The study concludes that there is no difference between green investment or conventional investment and investor would not sacrifice good returns for sustainable development. However, as discussed earlier in this paper, some authors have identified a greenium, as some empirical studies have shown the positive result of investment in green instruments.

‘A systematic literature review of socially responsible investment and environmental social governance metrics’ by **Widiyawati (2020)** It highlights the interrelationship between ESG metrics and in socially responsible investment. ESG scores play an important role as it is considered to be a measure of sustainable performance and helps in taking financial decisions, hence it moderates the decision on SRI. It suggests the balance approach between financial returns and consideration of ethical values by investors while making financial decisions.

ESG factors and ESG score can influence performance of a particular investment and may give better financial returns depending on the region and market condition of the investments. Hence it worries with the region and conditions as discussed in the paper ‘Do socially (ir)responsible investments pay? New evidence from international ESG data’ by **Auer (2016)**.

‘Inside the ESG ratings: (Dis)agreement and performance’ by **Billio (2021)**, it highlights that the difference in rating criteria by different rating agencies. Lack of uniformity in ratings as there is no standardization of ratings can lead to confusion among investors.

‘ESG rating and stock price crash risk: Evidence from China’ by **Feng (2022)**, studies about the stock prices and ESG ratings, it says that higher ESG ratings leads to less volatility in stock prices and mitigate the risk.

Barko (2022) in their paper ‘Shareholder Engagement on Environmental, Social, and Governance Performance’ discussed, ethical values and financial performance, and it says both can go hand in hand, and they have provided direct evidence for proving their point that both, ethical investment and financial performance can be aligned. The study is based on the perception of activists and the performing incorporating sustainable investments in their businesses.

Table IV: top 10 journals by citations

Rank	Journals	Documents	Citations	SJR
1	Journal of sustainable finance and investment	29	551	Q1
2	Journal of business ethics	17	1392	Q1
3	Journal of cleaner production	17	419	Q1
4	Business strategy and the environment	16	900	Q1
5	Finance research letters	14	613	Q1
6	Corporate social responsibility and environmental management	9	453	Q1
7	International review of financial analysis	8	81	Q1
8	Journal of asset management	8	292	Q2
9	International review of economics and finance	6	1	Q1
10	Investment management and financial innovations	6	35	Q3

Table IV represents the top ten most influential journals publishing articles on ESG fields. Most of these journals are from developed countries, the first journal with documents (29) is from United Kingdom and is publishes by Taylor and Francis with the impact factor of 9.24. This is one of the most cited journals as it is specifically for sustainability and finance that is aligned with the topic. The second journal ‘Journal of business ethics’ is published by Springer and it is from Netherlands, it has 1,392 citations. This is the most cited journal, it publishes in the field related to ethics and sustainability. ‘Journal of cleaner production’, that has been ranked third (17) with 419 citations. It is ranked Q1 by SJR. The journal ‘Business strategy and the environment’ is ranked

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fourth as per number of documents published, it is a Q1 journal as per JSR rankings. 'Finance research letters' is published by Elsevier and it has 14 documents with a rank of five, it is ranked Q1 by JSR Journal rankings. 'Corporate social responsibility and environmental management' is ranked sixth in the table with 453 citations and 9 documents, is from UK and is ranked Q1 by JSR. The Journal 'International review of financial analysis' (8) is ranked seventh followed by Journal of asset management (8), International review of economics and finance (6) with the JSR ranking of Q1, Q2 and Q1 respectively. 'Investment management and financial innovations', it is ranked tenth as per number of documents and is ranked Q3 as SJR rankings, as the relevance of the journal with the topic is less compared to above journals as it mostly focuses on Finance, accounts and economics. Thus has less number of documents in citations in this field.

V. CONCLUSION

In order to explain the development of ESG and related sustainability studies, this study performed bibliometric analysis to review the literature. We have used data from the Scopus core collection and VOS-viewer to generate visual maps. However, we acknowledge that findings would differ based on which database was used. The study offers suggestions for future research that could explore correlation between subtopics while carrying out clustering investigations, including co-citation using different types of sources. The publishing trend demonstrates a steady growth in this area, which highlights the importance of developing ESG disclosure systems and indicating researchers' increased interest. Notable number of publications come from developed nations driven by innovation and technical growth, specifically the US and the UK. Citation analysis shows that researchers are becoming more interested in sustainability; however, more research in this field is needed in developing economies to create awareness and promote ESG investments. Government initiatives like funding and enhanced transparency systems would help organizations and investors reach their long-term investment goals while earning competitive returns. A recurrent debate was brought to light by an investigation of the top ten journals: the plausible trade-off between financial benefits and sustainable investment. Even though a number of papers indicate that ESG investments frequently perform better than conventional ones, these results are inconsistent, raising doubts about how well they perform in comparison.

In order to encourage a more comprehensive knowledge of the effect of ESG, it is essential to highlight the significance of interdisciplinary collaboration in ESG research, bringing together experts in public policy, environmental science, and finance. Further, inconsistent information remains an obstacle for investors, it is essential that ESG data be publicly available and standardized. The continuous growth in ESG adoption nationwide is also projected to be significantly influenced by investor demand and changes in regulation. In an effort to develop effective policies, future studies should focus on region specific ESG issues, specifically in developing economies. To assess ESG performance over the course of time, longitudinal studies are also advised. This will help to clarify the consistency of returns and will add to the analysis of sustainable performance.

The paper has also suggested subjects including rating standardization, circular economy, and AI-ESG integration that have potential for future research. Since the scope of this study was limited to Scopus database, increasing the number of sources for data can improve accuracy. In the end, ESG is still an area that is evolving and constantly changing, which has potential to influence sustainability in the coming years.

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