SURVEYING THE LITERATURE ON ENVIRONMENTAL SOCIAL GOVERNANCE INVESTMENTS: A BIBLIOMETRIC ANALYSIS

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ABSTRACT

The use of environmental, social, and governance variables in investment decisions is becoming more popular. This growing importance of ESG investments is driving the growth of literature in this area, which necessitates a review of all existing literature to determine future research possibilities. We noticed a scarcity of these review studies in the subject of Environmental, social, and governance investments, and to the best of our knowledge, there is most likely no bibliometric literature review study. Thus the current work tries to fill this gap by statistically analyzing the existing literature. Using the keywords "ESG" OR "ENVIRONMENTAL SOCIAL GOVERNANCE" AND "INVESTMENTS" OR "FUNDS," all articles published between 2010 and 2021 were extracted from the Scopus database. We obtained 530 publications in total, and after using some exclusion and filtration criteria, we were able to find 317 papers for our study. The current study used two quantitative analysis tools: R studio (biblioshiny) and VOS viewer for executing performance analysis and science mapping techniques of bibliometric review. This review paper elucidates current trends, dominating journals, prominent articles, well-known authors, and the networking between countries, articles, authors, and keywords of this domain. Finally, using thematic analysis, the study is possible to uncover some unexplored areas of research within this existing domain, thereby analyzing the scope for future research.

KEYWORDS: ESG, Environmental social governance, investments, funds, Bibliometric analysis.

INTRODUCTION

The importance of ESG is growing rapidly among both institutional and retail investors. In 1960, investors in the South African apartheid regime began eliminating the choice of stocks or the entire industry related to tobacco production when forming their investment portfolio[1] It was the beginning of the

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including environmental, social and governance factors in the investment process which becomes a trend now. Moreover, a number of traditional fund managers have started using responsible ways of investing in their investment-making process. [2]. The main reasons for ESG adoption are factors that threaten the sustainability of the whole world and create global sustainability challenges such as drought, flood risk, air pollution, mass migration, extreme weather, deforestation, data security issues and tax transparency, etc. which create risk for investors and compel them to move to a new investment style. [1]

"ESG investing means the consideration of environmental, social and governance factors with financial factors at the time of investment decision-making process." Different strategies can be used for ESG investing like exclusionary screening or value best screening is the most used strategy followed by best-in-class selection, thematic investing, full ESG integration[3]. According to MSCI ESG research, there should be three common objectives in each ESG strategy. The first objective is Integration, which means involvement of risks and opportunities related to ESG into investment in order to boost risk-adjusted returns for the long term. The second objective is value investing, which takes into consideration of organization or individual's moral values and beliefs, and the last one is impact investing which involves creating positive social or environmental benefits along with a financial return [4] With the increased popularity of ESG investments, it is necessary to assess the performance of environmental, social, and governance investments. Many different ESG index providers like MSCI, S&P Dow jones, and Robeco SAM, FTSE Russell, and Thomson Reuters provide ESG indexes such as MSCI global sustainability indexes, Dow jones sustainability indices, FTSE4good global index, and Thomson Reuters corporate

responsibility indices for performance measurement.

The growing number of ESG investments has motivated researchers to conduct research in this area. Most of them showed their curiosity to know whether investing in ESG investment make some difference in returns and some studies have proven that ESG investments are better in returns [5] [6] [7] [8] but some studies find no significant difference[9]. Moreover, the financial performance of all the companies following ESG practices are is not identical. [10]. Some other facts are also in the literature regarding the performance of ESG investments such as in the pre-Covid situation, ESG returns were at par but in post-Covid, they are outperforming [11]. Some studies elucidate that investors with a long-term horizon are more interested in ESG investments as they understand the fact that the long-term time horizon is the most focused factor to gain sustainable returns [12]. Further, more studies say that ESG disclosure also plays a role. A positive correlation is examined between financial & market performance and ESG disclosure and a negative correlation between leverage and ESG disclosure [13], Environmental disclosure showed a positive impact on financial and market performance, and governance disclosure showed a negative impact on financial and operational performance. [14]. According to a study, portfolio construction is done by looking at the ESG score and finding a U shape relation between ESG score and portfolio construction [2].

Previous research studies are always interpreted in order to assist future researchers. Furthermore, a review of the literature allows us to peer behind the curtain into previously unexplored areas of research within the domain. As a result, systematic literature review studies have become a common practice among researchers. However, the use of bibliometric analysis for literature review is

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a new and less developed practice, and quantitative analysis using statistical and mathematical tools is still in its infancy stage within the area of environmental, social, and governance investment. In order to fill this gap, the current study employs a bibliometric review method to analyze a large amount of scientific data from the literature related to ESG investments. It will familiarize the reader with the domain, alert them of knowledge gaps and new perspectives on the topic, and help them design their future research framework.

The rest of the paper is organized as follows. Section 2. Provides an overview of the research methodology and research questions. Section 3. Presents the findings of the study. Section 4. Summarizes the paper, and Section 5 sheds light on the current study's limitations and future work scope.

RESEARCH METHODOLOGY

As a data collection source, the current study used the Scopus database to find out the relevant literature on ESG investments/ funds. Scopus was chosen because it has better content coverage, offers open access to source and author-related information, and has a large number of source titles, journals with impact metrics, and fully open access sources. It's also simple to use [15] TITLE-ABS-KEY ("ESG" OR "ENVIRONMENTAL SOCIAL GOVERNANCE"AND "INVESTMENTS" OR "FUNDS") are the terms used for searching the literature. We extracted all articles in the areas of Business, management, accounting, economics, econometrics, and finance from

2010 to August 2021, and they are only in English. The initial search result shows 530 studies, but to make our study more relevant, we use some filtration criteria and obtain 317 articles for analysis as shown in table 1.

TABLE 1. Bibliometric data extraction process.

Filtration stage	Filtration criteria	Exclusion	Inclusion
1	Search result	-----	530
2	Year filter (exclude 2006, 2007, 2008, 2009)	006	524
3	Subject filter (limit to "BUSI" and	116	408
4	Document type (limit to articles)	073	335
5	Language filter (only articles)	006	329
6	Content bases	012	317

In this work, bibliometric analysis methodologies like performance analysis and scientific mapping are applied. The impact of researchers', departments', universities', and countries' performance is studied in this section of the Performance Analysis. Science mapping, on the other hand, is the process of extracting knowledge from the research domain's social and intellectual structure. The study is carried out with the help of two software programs: VOS viewer and R studio.

VOSviewer is software that allows you to create and view bibliometric maps. This is a free tool that was created specifically to display bibliometric maps graphically. Biblioshiny (bibliometrix) is a tool written in the R programming language designed

for complete bibliometric analysis, which is extensible and allows users to add additional functions [16].
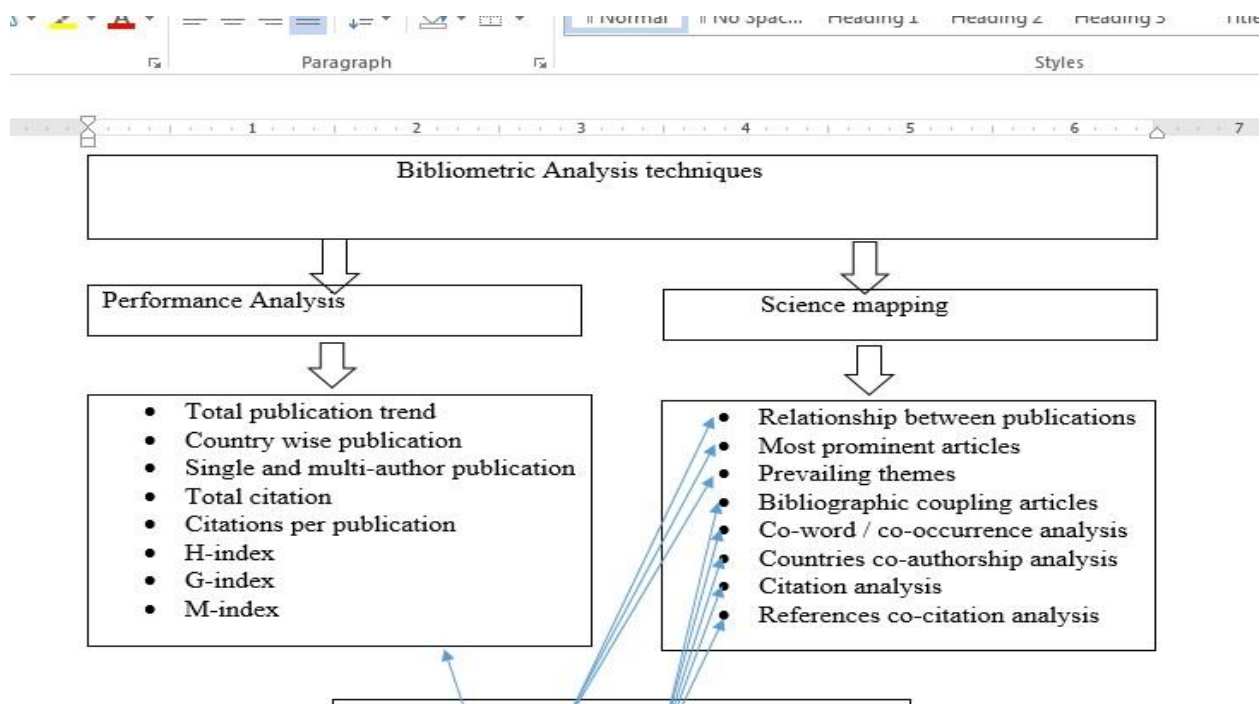
RESEARCH OBJECTIVES

Obj1: To examine the current trend in the area of ESG investments/funds. Obj2: To find the most dominating and famous journals of current literature. Obj3: To locate prominent articles of the current domain.

Obj4: To find well-known authors the area.

Obj5: To investigate prevailing themes in this area of research

Obj6: To investigate the connections between countries, articles, authors and keywords. Obj7: To learn about the possibilities for further study

RESULTS

Current Trend In The Area Of ESG Investments/Funds

ESG investments are the current trend. Publications in this discipline are also increasing as seen in Fig. 1, which depicts the annual publication trend over the last twelve years. In 2020, the number of publications on ESG investment is more than double that of 2019. More than 80 per cent of all studies have been published in the last two years. To date, more than 50 countries have contributed to the literature. The names of the top 10 countries are listed in Table 2 based on the number of publications and citations. The United States has the most publications (106), followed by the United Kingdom (72). More than half of the publications in this study came from two countries: the United States and the United Kingdom. The United States is once again the leading country in terms of citations, with 292 citations, followed by the United Kingdom with 270 citations.
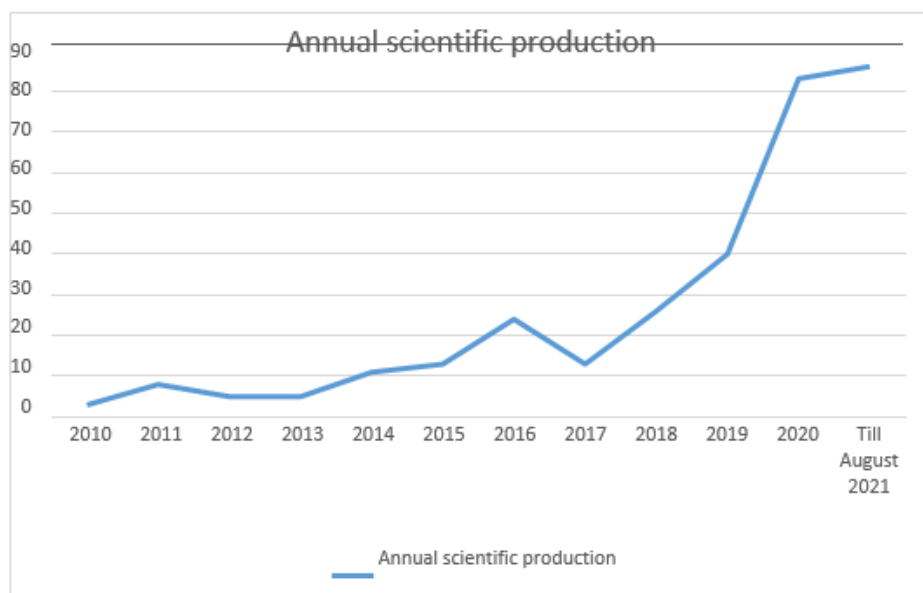
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Figure 1. Publication Trend

TABLE 2. Publication and Citation Trend on Country Basis

Country	No. of Publications	Total citations
USA	106	292
UK	72	270
AUSTRALIA	45	192
SPAIN	44	136
ITALY	41	78
GERMANY	38	166
CANADA	37	145
FRANCE	28	163
INDIA	26	48
CHINA	23	26

The word frequency is visually represented in Fig 2. The most frequently occurring terms are given eminence. The larger the font, the more important the words are, and the more frequently they are used. It's visible that esg, corporate social responsibility, esg investing, environmental, and sustainability are some of the most commonly used keywords, whereas Green bonds, green indices, sustainability disclosure, sustainability reports, portfolio construction, green finance, and equity mutual funds are less used keywords.

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Figure2. Word Cloud

Most Dominating and Famous Journals

TABLE 3 lists the top ten impacting journals in terms of publishing, as well as the SJR rank, cite score, H-index, and quartile for each of these journals. On a publication basis, the journal of sustainable finance comes out on top, contributing to almost 12per cent of the total articles in the study with 39 publications. With 15 publications, the Journal of Portfolio Management comes in second, followed by Business Strategy and the Environment. On the other hand, on the basis of SJR, which is a prestigious rank of a journal based on citations received and the source of citation, the journal of business ethics ranks first among these ten journals. The journal of cleaner production had the highest cite score, which calculates the average number of citations based on the number of citations and documents published in that journal over the previous four years. For the same, the h index is similarly high. The last category is quartile, which is a ranking given to a journal based on citations, impact factor, and indexing. It is divided into four categories: Q1, Q2, Q3, and Q4, and six of these journals fall into Q1.

TABLE 3. Most influencing sources

Name of Journal	No of articles	SJR 2020	Cite score 2020	H-index	Quartile
JOURNAL OF SUSTAINABLE FINANCE AND INVESTMENT	39	0.45	2.4	16	Q2
JOURNAL OF PORTFOLIO MANAGEMENT	15	0.91	1.5	50	Q1
BUSINESS STRATEGY AND THE ENVIRONMENT	14	2.12	10.3	105	Q1

FINANCE RESEARCH LETTERS	13	1.34	5.3	39	Q1
JOURNAL OF BUSINESS ETHICS	12	2.209	9	187	Q1
JOURNAL OF ASSET MANAGEMENT	8	0.36	1	16	Q2
JOURNAL OF INVESTING	8	0.229	0.4	3	Q3
JOURNAL OF CLEANER PRODUCTION	7	1.94	13.1	200	Q1
CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENTAL MANAGEMENT	6	1.519	8	73	Q1
JOURNAL OF WEALTH MANAGEMENT	5	0.24	0.6	12	Q3

Prominent Articles of the Current Domain

Table 4 lists the names of the top twenty articles based on their local and global citations. With 142 global citations and 29 local citations, an article published in 2014 titled "socially responsible funds and market crises" is leading presently. This study shows that when comparing socially responsible mutual funds to regular mutual funds during times of crisis, the former outperformed the latter, especially for those ESG funds that use a positive screening technique.[17] An article titled "The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings under Review" was published in 2020, yet this has a high global citation count of 25 and a high local citation count of 4.

TABLE 4. Leading Articles On Citation Basis

Document	Article title	Yes	Local Citations	Global Citations
NOFSINGER J, 2014, J BANK FINANC	Socially responsible funds and market crises	2014	29	142
VAN DUUREN E, 2016, J BUS ETHICS	"ESG Integration and the Investment Management Process: Fundamental Investing Reinvented"	2016	19	83
AMIR 2018, ANAL J	"Why and how investors use ESG	2018	15	76
BUSCH T, 2016, BUS SOC	"Sustainable Development and Financial Markets: Old Paths and New Avenues"	2016	9	93
AUER BR, 2016, Q REV ECON FINANC	"ESG investment; International robustness; Performance"	2016	9	58
ECCLES NS, 2011, J BUS ETHICS	"The Origins and Meanings of Describing Investment Practices that Integrate a Consideration of ESG Issues in the Academic Literature"	2011	9	45

NOLLET J, 2016, ECON MODEL	"Corporate social responsibility and financial performance: A non-linear and disaggregated approach"	2016	8	119
E, 2017, STRATEGY ENVIRON	Retrogression"	2017	7	29
ASHWIN KUMAR NC, 2016, JOURNAL OF SUSTAIN FINANCE INVEST	"ESG factors and risk-adjusted performance: a new quantitative model"	2016	7	21
HENKE HM, 2016, J BANK FINANC	"The effect of social screening on bond mutual fund performance"	2016	7	31
CRIFO P, 2016, BUS SOC	"Corporate Governance as a Key Driver of Corporate Sustainability in France: The Role of Board Members and Investor Relations"	2016	7	23
REVELLI C, 2017, RES INT BUS FINANC	"Socially responsible investing (SRI): From mainstream to margin?"	2017	6	31
UTZ S, 2014, J ASSET MANAGE	"Are they any good at all? A financial and ethical analysis of socially responsible mutual funds"	2014	6	31
ALLEN R, 2012, JOURNAL OF SUSTAIN FINANCE INVEST	"Shareholder engagement in the extractive sector"	2012	6	13
FOLGER-LARONDE Z, 2020, JOURNAL OF SUSTAIN FINANCE INVEST	"ESG ratings and financial performance of exchange-traded funds during the COVID-19 pandemic"	2020	5	14
JIN I, 2018, JOURNAL OF SUSTAIN FINANCE INVEST	"Is ESG a systematic risk factor for US equity mutual funds?"	2018	5	10
ESCRIG-OLMEDO E, 2013, BUS STRATEGY ENVIRON	"Integrating multiple ESG investors' preferences into sustainable investment: A fuzzy multi criteria methodological approach"	2013	5	36
DIMSON E, 2020, J PORTF MANAGE	"Divergent ESG ratings"	2020	4	7
DREMPETIC S, 2020, J BUS ETHICS	"The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review"	2020	4	25
SINGH A,	"COVID-19 and safer investment bets"			

2020, FINAN RES LETT				
	2020	4	14	

Well-Known Authors The Area

Table 4 includes the list of popular 10 authors on the basis of their number of publications, Tessa Hebb is at the top of the list with five articles, followed by Elena Escrig-olmedo with four articles. Table also shows authors with the highest total citations, h index and g index. Tessa Hebb is doing well in the h index and total citations, whereas Elena Escrig-olmedo is in the g index.

Table 4. Top authors on basis of publications with H, g and m index

Authors	NP	H index	G index	M index	TC
HEBB T	5	3	5	0.25	59
ESCRIG-OLMEDO E	4	4	4	0.444	107
CRIFO P	3	3	3	0.429	80
ECCLES RG	3	3	3	1	36
LEE LE	3	1	3	0.333	9
MUNOZ-TORRES MJ	3	3	3	0.333	87
REVELLI C	3	3	3	0.429	56
ALDA M	2	2	2	0.667	21
ARAYSSI M	2	2	2	0.333	88
ARRIBAS I	2	1	2	0.333	24

Thematic Analysis

Thematic networks are developed in this paper based on keyword co-occurrence. Themes are collections of keywords that are based on their connections. These themes are divided into four categories. 1. Motor theme: these are primed and developed. 2. A niche theme is one that has been developed but is not very important and only plays a minor part. 3. Emerging or fading theme: poorly developed and plays a little part. 4. Basic theme: these are essential themes that have not yet been developed[18]. Thematic analysis examines the connections between concepts and compares the perspectives of different scholars in various situations and tenures. It is also capable of analyzing data patterns[19]. All of these themes connected to the current domain are explained in Figure 3 and Table 5. The most important theme label of basic themes is indicated in the lower right side of the thematic map, which is highly essential for researchers because these are less developed but important and they might provide paths for future work. The primary themes for the present period 2021 are depicted in Figure 4, and the essential phrases for these clusters are listed in Table 6.
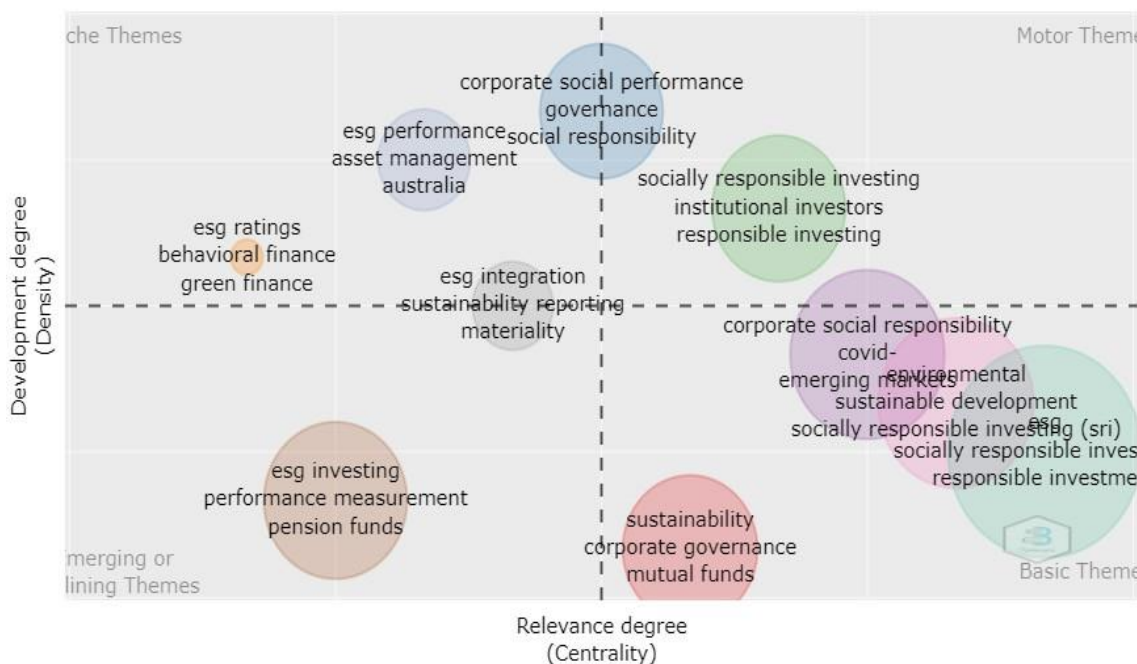
Figure 5. Thematic Map

Table 5. Clusters with label name and words within that cluster.

No	Cluster Cluster label	Words
1	Sustainability	Sustainability, corporate governance, mutual funds, esg disclosure, greenwashing, alpha, business ethics, cost of debts, esg factors, esg risk, government guidelines, investments, investor relation, social impact, stakeholder engagement, sustainable value creation
2	Corporate performance	social corporate financial performance, Climate change, finance, investment, equity, ethical investing, access, allocation, earth system governance, Jensen's alpha pension fund, regulation, trade
3	Socially	responsible socially responsible investing, institutional investors, responsible
	investing	investing, volatility, esg criteria, south Africa, systematic risk, credit rating, downside protection, emerging country, esg screening, idiosyncratic risk,
		investment decision, investment horizon, market risk, portfolio
		diversification, shareholder activism, sustainability disclosure, systematic literature review

| 4	Corporate responsibility	social Covid-19, emerging market, performance, firm value, shareholder engagement, china, environmental social and governance, institutional theory, activism, esg investments, real estate, shareholder theory, bank risk, corporate bonds, corporate engagement, esg score, esg standards, financial crisis, India, innovation, portfolio optimization, strategic management, the nonfinancial disclosure
5	Esg ratings	esg ratings, behavioral finance, green finance, investment decision, Islamic investment
6	Esg investing	esg investing, performance measurement, pension funds, portfolio construction, portfolio theory, risk management, private equity, wealth management, corporate finance, equity portfolio management, foundation & endowments, performance measurement, portfolio construction,
7	Environmental	Environmental , sustainable development, Social responsible investing, social, corporate social responsibility (csr), social and governance (esg), environment, risk, social responsible investment, corporate sustainability, environmental performance, portfolio management, sustainable development goals, abnormal returns, corporate responsibility, financial system, financialization, governance, momentum strategy, portfolio performance, social governance(esg) performance, social and governance disclosure, sustainable and responsible investment,
8	Esg integration	Sustainable reporting, materiality, agency theory, empirical research, framework, gri, key performance indicators, momentum, sustainable performance
9	Esg	Esg, social responsible investment, responsible investment, sustainable investing, sri, csr, sustainable finance, event study, financial performance. Sustainable investment, impact investing, csp, disinvestment, environmental social governance, negative screening, esg rating, stakeholders, asset allocation , asset pricing , carbon, climate risk, controversies, dow jones sustainability index, environmental ,social and governance, esg measurement, ethical investment, financial analysis, fund managers, investment strategies, portfolio choice, social performance, stock returns, sustainability performance, sustainability reports, sustainability risk, sustainable investments, valuation , venture capital,
10	Esg performance	Esg performance, asset management, Australia, gender diversity, integrated reporting, social responsible investments, environmental disclosure, equity mutual funds, esg rating agencies, screening criteria
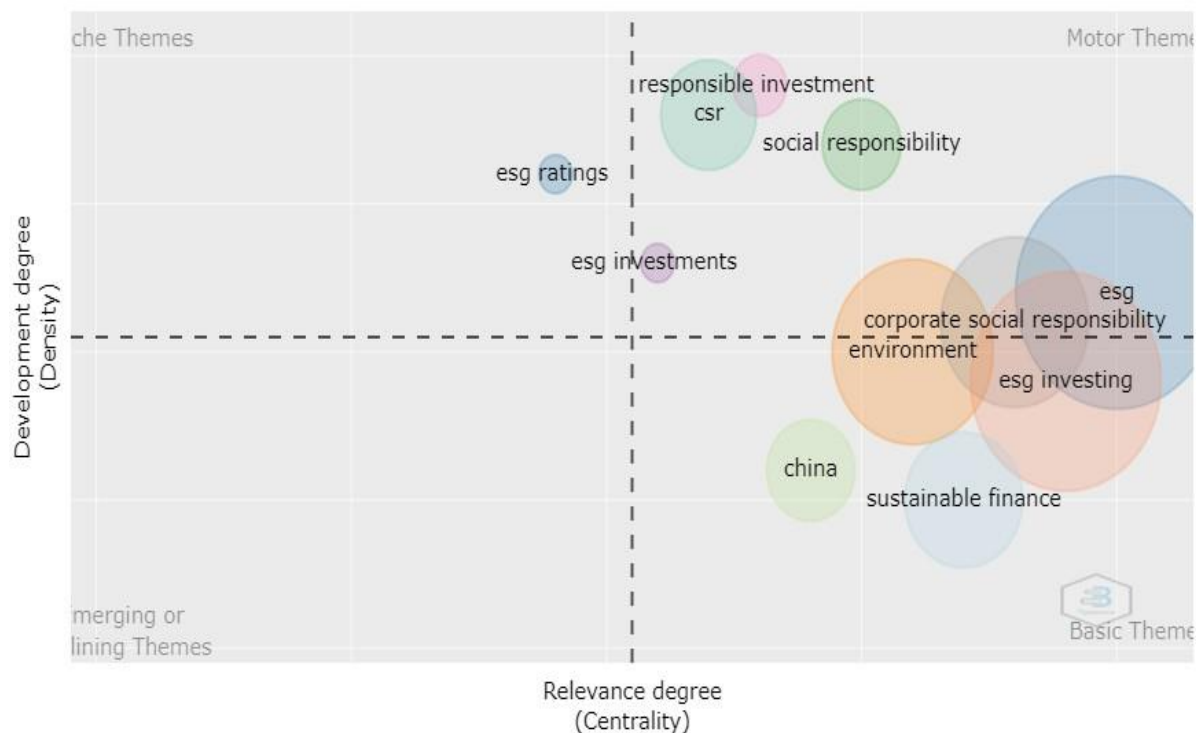
Figure 5. Thematic Map Of The Themes Of Current Year

TABLE 6. Current year cluster theme label and their keywords.

Sr. no	Cluster label	Words
1	Esg	Esg, sustainability, covid-19,investing sri, alpha, sustainable , environmental social governance, financial crisis
2	Social responsibility	Social responsibility, agency theory
3	Esg investments	Esg investments
4	Environment	Environment, environmental, event study, social , social responsible investment, abnormal returns, corporate social responsibility, esg rating, governance, social and governance
5	Responsible investment	Responsible investment
6	Corporate social responsibility	Corporate social responsibility, environmental , social and governance, social responsible investing, activism, institutional theory, social responsible investing
7	Csr	Csr, cost of debt, esg disclosure
8	Esg investing	Esg investing, risk management, performance measurement, pension funds, portfolio construction, private equity, foundations and endowments, materiality, mutual funds, performance measurement, portfolio theory

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9	Sustainable finance	Sustainable finance, sustainable investment, environmental, social and governance, sustainable development
10	Esg ratings	Esg ratings
11	China	China , risk

Networking

This section investigates the relationship between countries, between authors, keywords, references, articles etc.

Networking of Countries

Fig 5. shows the collaboration of authors from different countries. In this diagram, two colours are used: one for multiple country publishing (MCP) and the other for single country publications (SCP). MCP depicts the involvement of writers from various countries in a study. There are only 46 overall articles with several corresponding authors in the current field of ESG investing. Figure 5 shows a comparison of MCP and SCP for the top 10 publishing countries that do corresponding author publications, with the United States is leading, and followed by the United Kingdom. However, MCP was found in just three out of twenty-five studies published in the United States, whereas it was ten out of eighteen investigations in the United Kingdom, which is the greatest rate. With the use of a world map, Figure 6 is about the country collaboration map which shows the collaboration of different countries in this subject. Table 7 illustrates the information of nations' mutual publications, showing that there are 317 articles in total from 50 different countries in this study. The United Kingdom has the strongest relationship, followed by the United States.
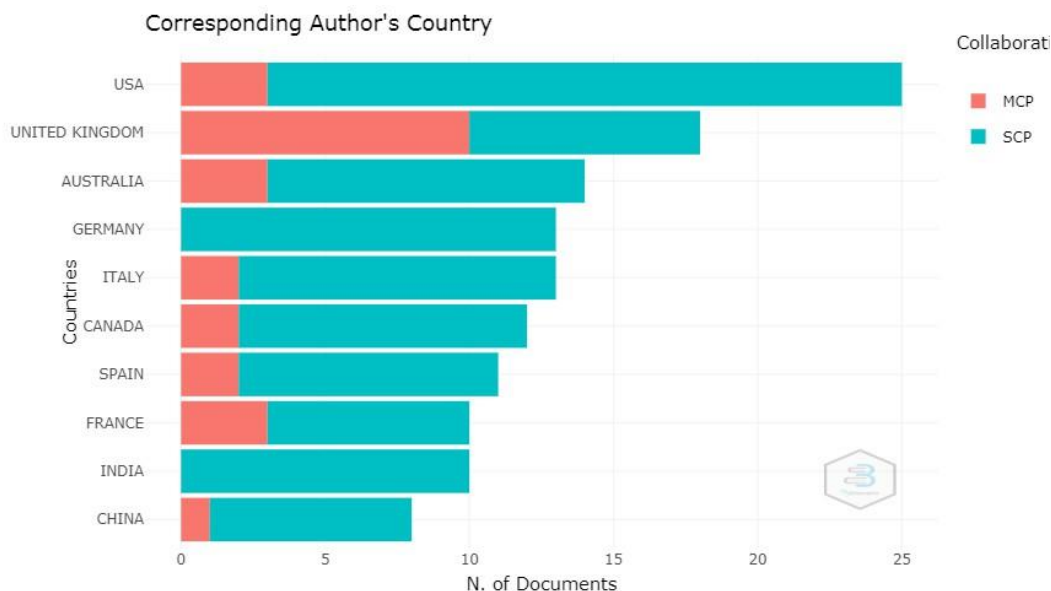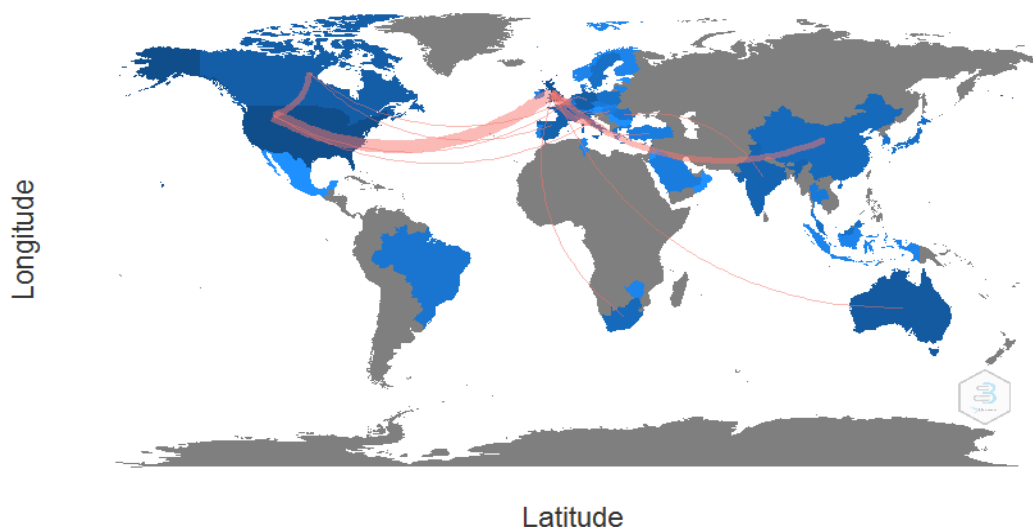

Figure 6. Corresponding Author's Country

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Country Collaboration Map

Figure 7. Network of countries connected with mutual Publications

TABLE 7. Countries mutual publications

From	To	Freq	Form	to	Freq
Australia	Canada China Germany Ireland Japan Malaysia Netherlands Singapore Sweden	1 1 1 1 1 1 1 1 1	India	Bahrain Romania	1 2
			Italy	Netherlands Poland	1 1
			Japan	Greece Hong Kong	1 1
			Ukraine	Bulgaria	1
			Greece	Hong Kong	1
Bahrain	Jordan	1	Romania	Bahrain	1
Canada	France India Netherlands Oman Romania	2 1 2 1 1	Spain	France Germany Lithuania Mexico	1 1 1 1
China	Hong kong Turkey	1 1	Switzerland	Austria Turkey	1 1
Finland	Estonia	1	South Africa	Sweden	1
Sweden	Ireland	1	Lebanon	Turkey	1

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France	Denmark Estonia Finland Tunisia	1 1 1 1	Germany	Belgium Denmark Liechtenstein Netherlands	1 1 1 2
United kingdom	Canada China Denmark Hungary Italy Netherland South Africa Sweden Switzerland Turkey Zimbabwe Australia Belgium	1 3 1 2 3 2 2 1 1 2 1 2 3	USA	Belgium Canada Denmark Germany Hungary Italy Korea Netherlands Oman Slovakia United kingdom	1 3 1 1 2 1 1 2 1 1 7

Co-citation analysis

This term was introduced by Henry Small in 1973. It shows the relationship between publications on the basis of similarity of the subject. When two documents appear together in the reference list of another document, they are referred to as co-cited. And for this, there must be some commonalities between the two published works. This analysis reveals all papers that are together cited in the source article and the clusters started forming when the same papers are cited together by many authors. [20]. Figure 7 illustrates the co-citation of references from a total of 317 publications in the current study, totaling 14772 references, and only those documents with a minimum of five citations are included. There are five clusters produced, with the largest cluster containing 21 items and the second cluster including 14 things. The number of citations is shown by the different diameters of the circle. The larger the circle, the more citations there are. There are many colours, each of which denotes a common topic across the publications.
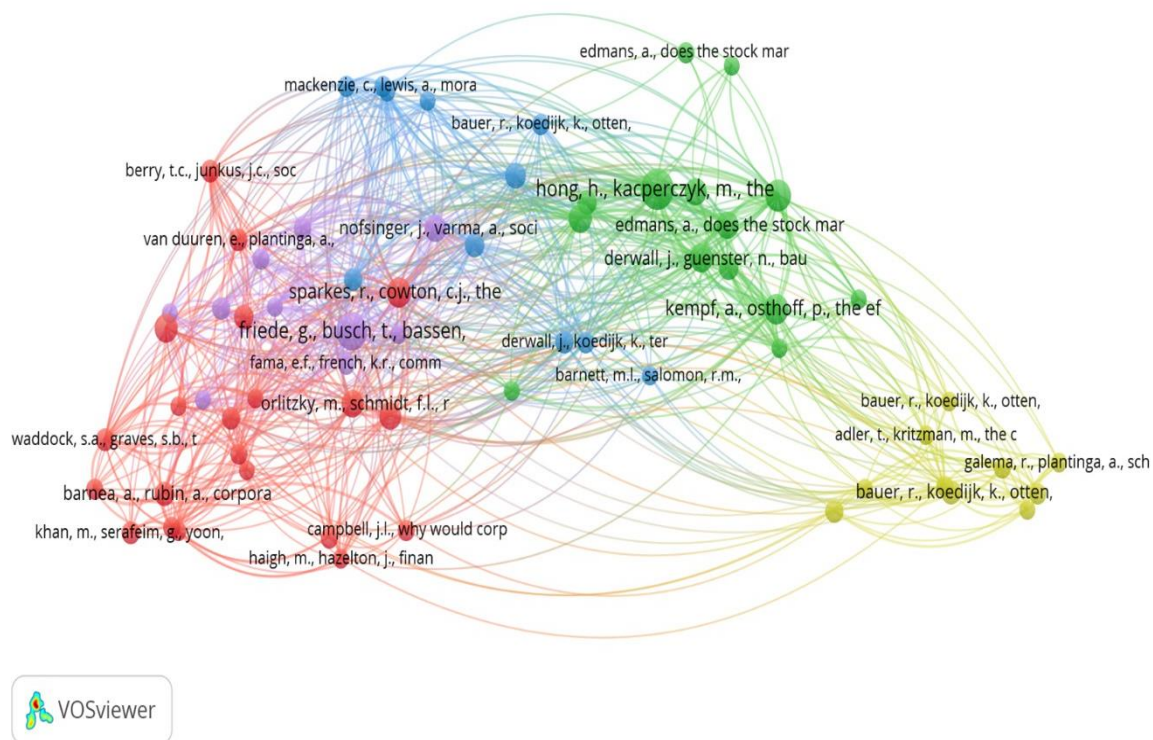
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Figure 8. Co citation of references

Bibliographic Coupling

In 1963, M.M. Kessler introduced the term "bibliographic coupling". This coupling happens when the reference of two works includes the third same work. It shows the similarity of the subject matter of the works forming bibliographic coupling. An increased number of common work increases the coupling strength. [20]. Figure 8 explains the coupling of 118 documents as only those documents are considered here which are having more than 5 citations. Total of seven clusters are formed and the largest two clusters contain 29 items each followed by another cluster with 19 items.[17] has gained the highest 142 citations and daugaard d. (2020) is the highest linked article with 493 links.
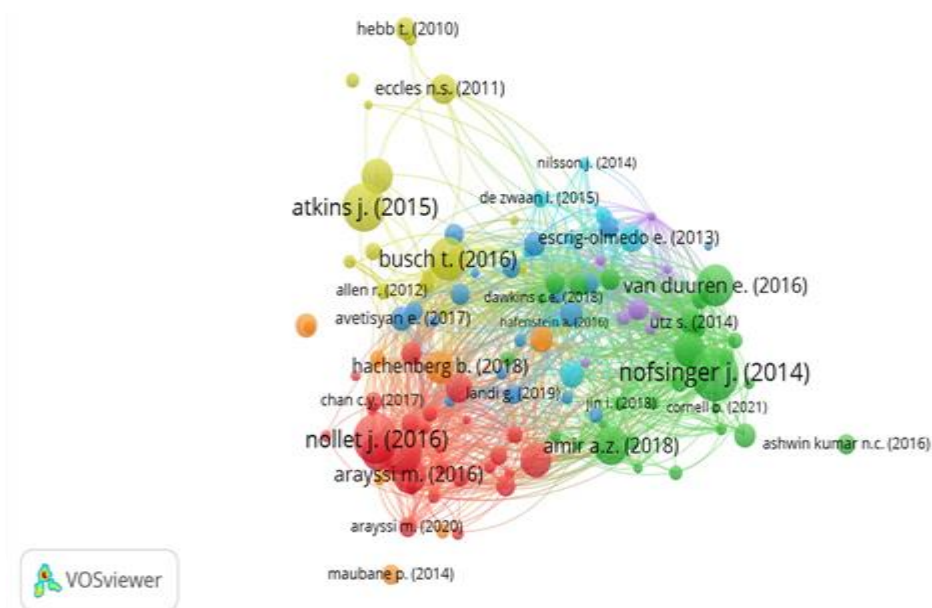
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Figure 9. Bibliographic coupling of documents/articles

Co-occurrence Analysis

The term "co-occurrence" refers to the association of keywords. Figure 9 displays the co-occurrence of the author's keywords. A total of 969 keywords were employed in this data set. However, use of the condition of a minimum of five occurrences, only 48 keywords remained for the study. Table 8 is regarding the linkage details, which explain how many times a term has appeared and been related to other phrases. The table shows that the term esg is a frequently used term with a total link strength of 110. Followed by environmental, sustainability, corporate social responsibility, esg investing, and social responsible investing. On the other hand esg index, fund performance, esg investing/ mutual fund, social responsible stock, green bods, mutual funds are less occurring and less linked words.
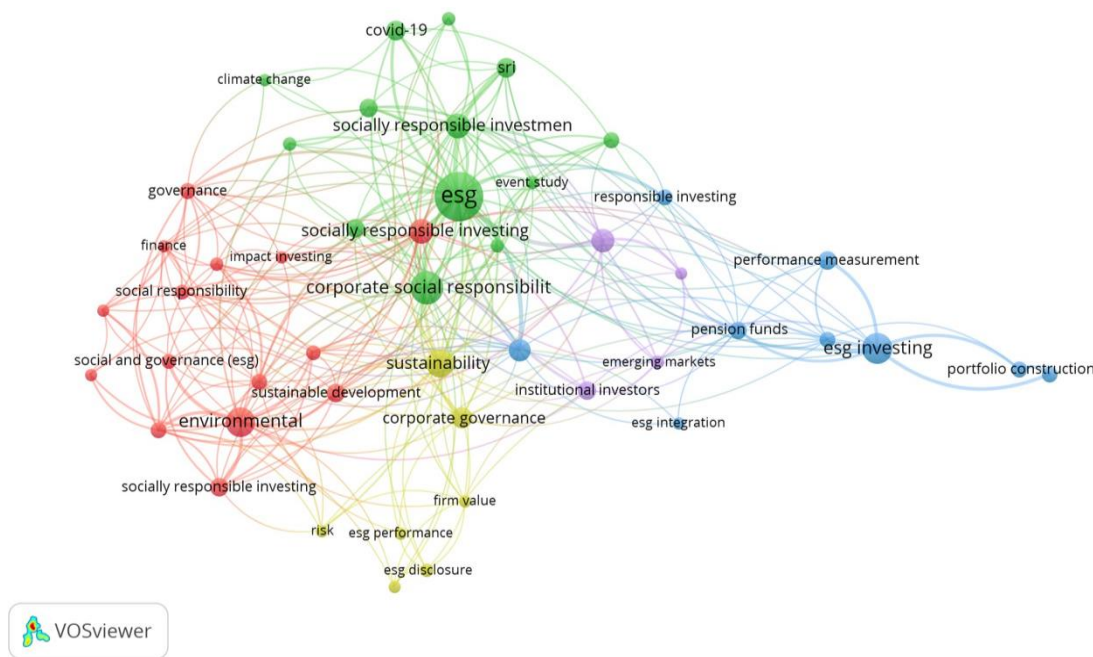

Figure 10. Co-occurrence of keywords

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Table 8. Keyword occurrence and linkage with other keywords

Keyword	Occurrence	Total link strength	Keyword	Occurrence	Total link strength
Esg	71	110	Corporate governance	13	21
Environmental	26	46	Governance	8	21
Sustainability	25	45	CSR	10	20
Corporate social responsibility	33	41	Pension funds	9	20
Esg investing	29	35	Social responsible investing(sri)	10	18
Social responsible investment	19	32	Sustainable development	11	18
Social		30	Corporate social responsibility(csr)	7	15
Responsible Iestment	17	28	Covid-19	12	15
Sustainable	15	27	Institutional investor	10	15
Social	8	25	Social responsibility	7	15
Corporate social rformance	8	22	Corporate financial performance	6	14
Sri	12	22	Emerging markets	6	14
Esg index	1	6	Bond mutual funds	1	4
Fund performance	1	2	Portfolio theory	1	2
Esg investing,	1	0	Esg investing Portfolio construction	1	0
Socially responsible cks	1	2	Green funds	1	8
Impact investing	5	13	Mutual funds	8	13

CONCLUSIONS AND DISCUSSIONS

The current research is a review and analysis of existing literature. The primary goal of the bibliometric analysis is to have a better understanding of the present state of the research field. As a result, this research focuses on the ESG publishing trend in the Scopus database from 2010 to 2021. The number of publications on

ESG investing is currently increasing at a rapid rate, as seen by the results from a research study conducted in

2020 against 2019. In comparison to 2019, the total number of publications in 2020 are more than double. To date, about 50 countries have contributed to this issue, with the United States and the United Kingdom contributing the most. When looking at the terms used in the literature, it's clear that esg, corporate social responsibility, esg investing, environmental, and sustainability are the most common. On the other hand, Green bonds, green indices, sustainability disclosure, sustainability reports, portfolio creation, green finance, and equity mutual funds are terms that are rarely used and these could be the guiding tool for future research. With 39 articles under this subject, the Journal of Sustainable Finance is the most active journal. While looking for the most famous article an article published in 2014 titled "social responsible funds and market crises" is the highly cited article with 29 local and 142 global citations. As far as authors are concerned, Tessa Hebb, Elena Escrig- olmedo have remarked significant contribution in this field. Thematic analysis explains all of the developed and undeveloped themes, as well as which of these are important and which are not. It identified that sustainable investing, esg disclosure, mutual funds, esg factor, esg risk, esg performance, firm value, shareholder's engagement, institutional theory are some of the important themes that have yet to be developed. This paper also study about the relationship between countries, authors, keywords, references, articles. The United Kingdom is the country that has the most network strength with other countries. daugaard d. (2020) is the highest linked article with 493 links. For a new researcher of ESG, this paper can be a quick guide to understand the topic.

LIMITATIONS AND FUTURE WORK SCOPE

This study has several limitations, just like other studies. One of them is the database we used for data collecting because we exclusively use data from the Scopus database here. In the future, other databases could be employed for bibliometric studies. Furthermore, the singular and plural forms of any term, as well as the usage of hyphens and other modifiers, can affect the results. Moreover, this study just employs two software programs, VOS viewer and R Studio, so future researchers can use additional software packages. Finally, while this research is limited to the disciplines of finance and economics, future work could include a broader range of topics.

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