SUSTAINABLE FINANCE IN FOCUS: GLOBAL RESEARCH PATTERNS, HOTSPOTS, AND FUTURE BY A BIBLIOMETRIC STUDY

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Abstract

Sustainable finance is crucial for achieving the Sustainable Development Goals, SDGs (United Nations, 2023). Existing reviews still only partially cover the sustainable finance domain. This paper seeks to conduct a comprehensive review to offer an integrated understanding and performance of sustainable finance, thereby addressing the existing knowledge gap. The bibliometrics are used as a methodology in the analysis of the corpus of 893 academic research papers from Web of Science (WoS) for the period 2007 to 2022 regarding sustainable finance. The study identified the top metrics, including the best papers, journals, institutions, and countries that significantly contributed to the field of sustainable finance. The result shows sustainable finance and finance sustainability as the evolved subset, while climate finance and climate change adaptation were recognized as the emerging area of sustainable finance. Green bonds, renewable energy, and reducing emissions from deforestation and forest degradation (REDD) appear as niche themes. Additionally, the review proposes advanced future research in sustainable finance, including the integration of sustainable finance and climate finance and the role of green bonds in accelerating renewable energy. This study presents an exhaustive analysis of 893 research articles. Overall, the study offers an integrated overview of the domain and outlines how research in sustainable finance has evolved over the last 15 years.

Keywords: Sustainable Finance, Green Finance, Bibliometric Analysis, Literature Review

Authors' individual contribution: Conceptualization — V.P.; Methodology — V.P.; Formal Analysis — V.P.; Resources — R.R.K.; Data Curation — V.P. and R.R.K.; Validation — R.R.K.; Writing — Original Draft — V.P.; Writing – Review & Editing — V.P. and R.R.K.

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1. INTRODUCTION

The 17 Sustainable Development Goals (SDGs) are the core objectives of the 2030 Agenda for Sustainable Development. The United Nations Development Programme (UNDP) established the SDG Finance Nomenclature to support the management of financial and financial flow associated with SDG-aligned projects (Kazan et al., 2025). The nomenclature implies financial mechanisms, private financing, and collaboration among financial institutions to achieve the SDGs. SDG 17, titled "Partnership for Goals", has been selected as the central focus for fulfilling the financial requirements for SDG-related initiatives (MacDonald et al., 2019).

Sustainable finance in the present time is considered a dominant area in finance (United Nations, 2023). The importance of sustainable finance is just understood by the fact that in 2020, capital markets will have generated more than $400 billion in new funds, including $357.5 billion in sustainability bonds and $76.5 billion in green bonds (United Nations, 2023). Sustainable finance signifies a progression of conventional financial theory, merging ESG factors into capital allocation, risk assessment, and corporate governance structures. Conventional finance prioritizes value maximization and efficiency, but sustainable finance incorporates societal well-being and long-term environmental sustainability into these goals. Nevertheless, the term "sustainable finance" has a very broad definition, including the various overlaps in the domain of finance, and the boundary is not defined. The definition needs to be well-defined, must consider all the subsets of sustainable finance, and should present a holistic view. This study emphasizes that sustainable finance must encompass all activities and aspects that are essential to making finance sustainable. Within this conceptual framework, empirical studies have further illuminated the determinants and impacts of ESG practices. Nguyen and Hoang (2025) identified firm size as a significant positive factor influencing both the adoption and the efficacy of ESG initiatives, suggesting that larger corporations possess greater capacity and resources to integrate sustainability objectives. Expanding upon this understanding, Muttaqi and Nur (2025) examined the linkage between ESG performance and corporate dividend policy, finding that firms demonstrating stronger ESG commitments tend to exhibit more favorable dividend behaviors, thus aligning financial outcomes with sustainable values. Complementing these insights, Grove et al. (2024) offered a comprehensive review of contemporary ESG practices and their inherent challenges — particularly greenwashing and greenhushing — concluding that stakeholders have become increasingly adept at discerning genuine ESG commitments from superficial or performative disclosures. We believe this study aligns with the objectives established by various stakeholders, including ESG and sustainable finance. Climate financing, carbon and ESG disclosure, green bonds, and socially responsible investing may all be comprised under our broad concept of sustainable finance (Migliorelli, 2021; Widyawati, 2020).

Cunha et al. (2021) found that the previous study on sustainable finance is very fragmented, making it extremely challenging to well define what characterizes the discipline and what distinguishes it from traditional finance. Furthermore, Cunha et al. (2021) concentrated on the essential characteristics of sustainable financing, world initiatives to encourage sustainable finance, and the approaches and outcomes of the major players in sustainable finance; they only studied 166 articles, despite the fact that the sustainable finance field is much larger. To date, no review has thoroughly examined the evolving field of sustainable finance without introducing significant limitations. For instance, the study by Cunha et al. (2021) applied overly stringent selection criteria, which considerably narrowed the scope of the literature included in their analysis.

We aim to present a current overview of sustainable finance by leveraging bibliometric analysis to advance from the previous study. Cunha et al.'s (2021) examination of sustainable finance is greatly expanded to uncover the ideas that they were unable to communicate because of the constraints of their manual and quantitative assessment. This study specifically employed a biometric method to shed light on performance analysis and science mapping. This study would provide insights that respond to a few research questions that are typically revealed through bibliometric reviews (Donthu et al., 2021; Kumar et al., 2021; Rao et al., 2021). This study also provides a more accurate portrayal of the current scenario of sustainable finance research as a whole, rather than a fragmented representation. Present research revolves around the following questions:

RQ1: What is the current scenario of sustainable finance in research publications?

RQ2: What are the most significant papers and contributing journals in the field of sustainable finance?

RQ3: Who are the most influential authors, countries, and institutions in the field of sustainable finance?

RQ4: What are the main issues and areas presently under research on sustainable finance?

RQ5: What are the research areas or agendas for sustainable finance research in the future?

The findings of this study are utilized in various ways and help academicians, researchers, policymakers, and investors. First, both novice and expert sustainable finance scholars may acquire an overview of its publishing trend to measure its appeal in the scientific community over time (RQ1). Second, this review can help prospective writers find key literature (RQ2), appropriate collaborators (authors, institutions, countries) (RQ3), and primary themes and subjects identified in this study to distinguish and place their uniqueness with other streams of sustainable finance (RQ4). Finally, the duration of study directions herein might inspire prospective writers to begin new and potentially beneficial sustainable finance (RQ5). Policymakers and industry professionals may also be able to see what will happen in future academic studies by looking at these kinds of guidelines. These ideas are in accord with what experts in the field say about how to do thorough literature reviews (Donthu et al., 2021; Paul et al., 2021).

The study follows the systematic flow as follows. Section 1 starts with an introduction to sustainable financing. Section 2 reviews the literature. Section 3 presents the research methodology, along with inclusion and exclusion criteria for the article and bibliometric analysis under several headings. Section 4 provides the data analysis and findings of the study. Section 5 discusses the research results. Section 6 concludes the paper.

2. LITERATURE REVIEW

The decade 1986–1995 was witness to the growth in the literature on the major successful subset of socially responsible investment. In the coming decade (1996–2005), a new study has increased awareness of socially responsible investment (Statman, 2000) as well as the requirement of

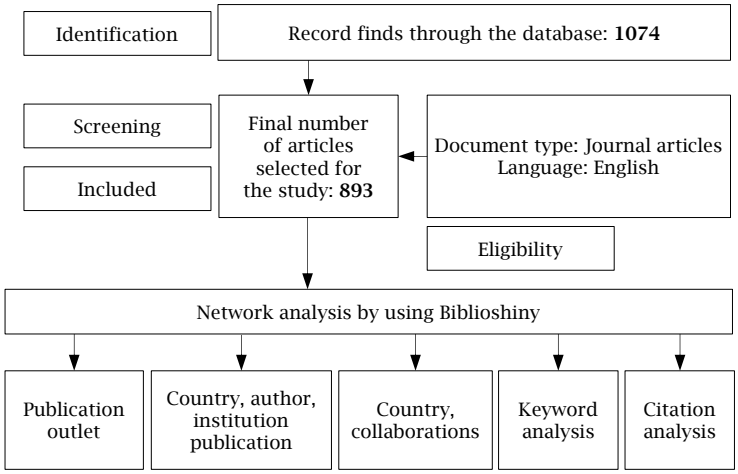
widening the context of sustainable finance to account for ethics and also the environment, including renewable energy and climate change. The decade (2006–2015) is the witness to the boom of new research in sustainable finance, like carbon finance, climate finance (Vanderheiden, 2015), ESG-CSR (corporate social responsibility) and firm performance integration (Friede et al., 2015; Halbritter & Dorfleitner, 2015), and ethical investing. The current decade (2016–2025) has been marked by research in response to the Paris Agreement and also the initiation of the SDGs in 2015 (Caseau & Grolleau, 2020; Tan & Tuluca, 2024), ESG performance (Sihombing & Nurhaliza, 2025; Oza & Patekar, 2024; Bonaparte & Mburu, 2025), and innovative financial instruments such as social impact bonds (Alessandrini & Jondeau, 2020).

Past academics have sought to examine the existing literature on the topic, given the expanding study of sustainable finance. However, in most cases, such assessments focused on a single component of sustainable finance rather than the field as a whole. For example, literature on green finance (Malhotra & Thakur, 2020), climate finance (Giglio et al., 2020), ESG (Widyawati, 2020; Biju et al., 2024), impact investing (Clarkin & Cangioni, 2016), the impact of ESG on corporate performance (P. Kumar et al., 2025), impact of ESG on sustainable finance (Rubab et al., 2025), and socially responsible investing (S. Kumar et al., 2021). Rubab et al. (2025) conducted a systematic review of 163 articles for the time span of 2019 to 2023. Rubab et al. (2025) used the PRISMA framework, and the period of the study is not long enough to present the whole picture. PRISMA framework, used by many researchers to conduct systematic literature review (SLR), as (Pratap, 2023; Pratap & Singh, 2023) also used to conduct a study on working capital and system dynamics. A key weakness of an SLR is that the interpretation of findings can be influenced by human judgment, which may introduce subjectivity or bias. S. Kumar et al. (2025) conducted a bibliometric analysis using big data and machine learning, encompassing a literature review of 936 articles up to 2020. Zhang et al. (2019) conducted a bibliometric study on green finance; however, their analysis primarily concentrated on green finance and did not sufficiently account for other important subsets of sustainable finance. But the current study conducts a literature review of the 893 articles in the period 2007 to 2021. This study presents more specifically the current scenario of sustainable finance, specifically the change after the Paris Agreement on the SDG domain, where the latter's absence and need to provide an intensive investigation ground for the present review, whose methodology will be disclosed in the next section.

3. RESEARCH METHODOLOGY

The present research work applies the scientific mapping technique and considers five phases (Figure 1) as proposed by Aria and Cucurullo (2017) and Firdaus et al. (2019). Research topics, keywords, and database selection are made at stage 1 of the study design process. Stage 2 involves gathering data using the shortlisting criteria. Bibliometric analysis is performed using Biblioshiny software to facilitate data comprehension after data collection from a database. The authors then discuss prospective future study topics after analyzing the outcome and interpreting it (Stage 5). Researchers highly value this method for synthesizing previous studies and identifying research gaps.

Figure 1. Methodological framework



3.1. Database selection, keywords identification, and determination of inclusion and exclusion criteria

To conduct this study, data were obtained from the Web of Science (WoS) database, renowned for its extensive compilation of indexed and peer-reviewed scholarly papers as of June 2022. We chose WoS over other databases like Scopus or Google Scholar on purpose to reduce record duplication and eliminate methodological discrepancies that come from variances in citation systems, metadata structures, and indexing standards. Additionally, WoS offers comprehensive coverage of high-caliber research in

the domain of sustainable finance, thereby connecting effectively with the scope and analytical aims of the current study. Korom (2019) stressed that WoS is a great place to do bibliometric analyses because it has well-known and high-impact journals.

The data collection methodology used focused search methods with the terms "Sustainable Finance", "Green Finance", and "Climate Finance". The first search found 1,074 publications, which were then used to construct a more accurate dataset. To maintain continuity and relevance in the topic's evolution, the analysis was confined to the years 2007–2021, omitting previous articles from 1992, 2003, and 2004 due to the lack of regular research output throughout those periods. After that, filtering by language made the dataset even better, leaving only 893 English-language articles and leaving out three non-English publications (two in French and one in Italian).

To make sure the data was correct and the analysis was correct, full-length versions of the chosen papers were found whenever possible. When full texts were not accessible, abstracts were scrutinized to confirm the significance of inclusion. Lastly, duplicate records were found and deleted to make a valid and consistent dataset for bibliometric analysis.

3.2. Bibliometric analysis

An SLR could serve as an alternative methodological approach, offering a more qualitative synthesis of developing themes, frameworks, and theoretical patterns in sustainable finance research. Likewise, content analysis and text-mining methodologies can enhance the examination of conceptual connections and keyword co-occurrences more comprehensively, thus revealing underlying interconnections across research constructs. Nonetheless, while their analytical depth, these qualitative methodologies demonstrate certain constraints regarding scalability, replicability, and the capacity to elucidate structural linkages within an extensive corpus of academic data.

To mitigate these limitations, the current study employs bibliometric mapping and network analysis to get a thorough and quantitative comprehension of the intellectual landscape of sustainable finance — a field that is still relatively underexplored in academic literature. The authors underscore that this domain has not been comprehensively examined in previous studies, including the research by Rey-Marti et al. (2016), thus validating the necessity for an evidence-based investigation of its evolution, impact, and thematic framework.

The study design is structured into two principal analytical phases. The first step is performance analysis, which looks at how productive and influential publications, authors, and journals are on the topic. The second step is all about science mapping analysis. Its goal is to find conceptual clusters, research trends, and patterns of collaboration within the field. This dual paradigm facilitates both macro-level and micro-level analysis of the discipline, thereby uncovering substantial research connections and suggesting interesting avenues for future investigation.

The study adheres to the methodological framework established by Aria and Cucurullo (2017) and Firdaus et al. (2019), as depicted in Figure 1. The data were scrutinized via an inductive analytical framework in two phases: initially, through bibliometric assessment to identify the structural underpinnings of sustainable finance research; subsequently, through network-based interpretation to delineate the most fruitful pathways for future academic progress.

The study commences with an overview of key bibliometric markers, followed by an in-depth review of two core components. The first covers performance analysis, while the second concentrates on science mapping analysis, which provides insights from the network of the intellectual, social, and cognitive inside the study issue. The methodological approach applied coincides with the methods presented by Aria and Cucurullo (2017) and Firdaus et al. (2019), as indicated in Figure 1. Analysis of the data is divided into two sections: the first of which is a bibliometric analysis, and the second of which is a network mapping. The R package that seamlessly integrates bibliometric and graphic analysis with Biblioshiny's integrated and supported data visualization features. It is suited for scientific mapping at a point when empirical research is a continuing priority and is providing huge volumes of fresh information streams (Aria & Cuccurullo, 2017). Data retrieved from the well-known database WoS is used in the study.

4. RESULTS

4.1. Characteristics of scientific production across the examined years

Characteristics of the scientific production of published articles on sustainable finance were calculated from 2007 to 2021. About 893 articles were published during the study period, with 3.13 average years from publication. The average number of citations per document is 13.09, with 3.286 average citations per year per document. The study further reveals that in total 5034 authors contributed to the literature, out of which 427 were authors of single-authored documents and 2144 authors of multi-authored documents. The collaboration index was determined to find the collaboration practices among the authors, which were found to be 2.78 in the sustainable finance literature.

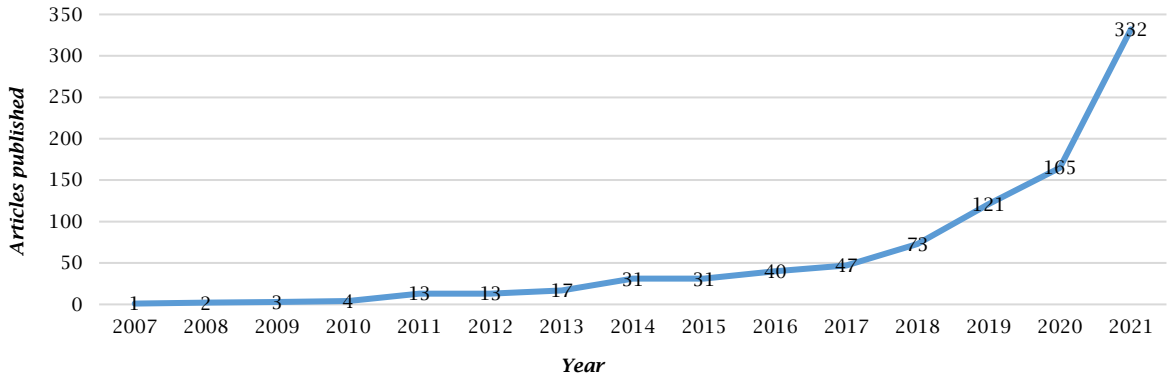
4.2. Performance analysis

Performance analysis that evaluates the effectiveness of a research area. The performance analysis used in this study reveals the following: 1) trend of publication research output, 2) the most important articles, 3) the top contributing journals, 4) the top contributing authors, 5) the top institutions which contribute in sustainable finance 6) the top countries that have high production of research, and last 7) the methodological decisions and research perspectives of sustainable finance.

4.2.1. Year-wise publication on sustainable finance papers

Publication trend is presented in Figure 2, which shows that from 2007 to 2010, published output was in single digits; in the field of sustainable finance, it has multiplied significantly in the next 15 years, with a record high of 332 publications in 2021. Since 2015, when United Nations member states signed the Paris Agreement and Sustainable Development Goals (SDGs), publications have grown exponentially. As evidenced by more than 90% of the review's articles being published over the last decade (2016–2025).

Figure 2. Year-wise distribution of research publications on sustainable finance between 2007 and 2021



Source: Authors' elaboration using Biblioshiny.

4.2.2. Most significant publications

According to Table 1, the most influential articles in this field of sustainable finance are based on citations. Chava's (2014) study stands out as the most cited work in the field, averaging 25 citations annually and accumulating a total of 224 citations since its publication in *Management Science*. This highlights its significant influence and recognition within the domain. This is followed by the "Country-level institutions, firm value, and the role of corporate social responsibility initiatives" article in the *Journal of International Business Studies*, which has been cited 199 times. The article "Socially responsible funds and market crises" (Nofsinger & Varma, 2014) ranks in 3rd place with 166 citations and 18 on average per year. Remarkably, the top 9 most-cited articles collectively have a total of 1269 citations, averaging 23.7 citations per year. The findings reflect the prominent contribution of sustainable finance research to the body of scientific knowledge.

Table 1. The top papers on sustainable finance with total and average citations

Author	*Title*	*Total citations*	*Average/Year*
Chava (2014)	Environmental externalities and cost of capital	224	25
El Ghoul et al. (2017)	Country-level institutions, firm value, and the role of corporate social responsibility initiatives	199	33
Nofsinger and Varma (2014)	Socially responsible funds and market crises	166	18
Taghizadeh-Hesary and Yoshino (2019)	The way to induce private participation in green finance and investment	128	32
Hartzmark and Sussman (2019)	Do investors value sustainability? A natural experiment examining ranking and fund flows	99	25
Yip and Bocken (2018)	Sustainable business model archetypes for the banking industry	98	20
Zhang et al. (2021)	Public spending and green economic growth in BRI region: Mediating role of green finance	89	45
Zhang et al. (2019)	A bibliometric analysis on green finance: Current status, development, and future directions	88	22
Kostka et al. (2013)	Barriers to increasing energy efficiency: Evidence from small- and medium-sized enterprises in China	86	9

Source: Authors' elaboration using Biblioshiny.

4.2.3. Top contributing journals for sustainable finance research

Table 2 lists the most popular journals where sustainable finance research with an h-index of 17 has been published. The journal *Climate Policy*, which contributed 56 papers and got 756 citations, had an h-index of 17 and a g-index of 24. *Journal of Cleaner Production* came in second with 26 papers and 601 citations, and had an h-index of 13 and a g-index of 24. *Climate Policy* journal tops the list in terms of the h-index, g-index, and citations. The journal *Sustainability*, which contributed 99 papers and got 631 citations, had an h-index of 13 and a g-index of 28. But in terms of the number of papers published, journal sustainability is at the top with 99 publications. The majority of the journals in Table 2 are in the domain of sustainability.

Table 2. The top contributing journals included in the analysis

Journal	h-Index	g_Index	m_Index	TC	NP	PY
Climate Policy	17	24		756	56	
Journal of Cleaner Production	13	24	1.3	601	26	2013
Energy Policy	12	20	1.090	426	20	2012
Sustainability	13	18	2.166	631	99	2017
Climate and Development	9	15		230	18	
Ecological Economics	11	15	1.222	370	15	2014
International Environmental Agreements: Politics Law and Economics	8	15	0.727	229	16	2012
Journal of Banking & Finance	12	15	1.333	543	15	2014
Climatic Change	8	14	1	217	16	2015
Environmental Science and Pollution Research	8	13	2.667	199	17	2020
World Development	9	12	1.125	289	12	2015
Energies	5	11	1.25	125	14	2019
Environmental Research Letters	6	10	0.857	127	10	2016
Nature Climate Change	8	10	0.889	277	10	2014
Global Environmental Change-Human and Policy Dimensions	8	9	0.889	217	9	2014
Business Strategy and the Environment	4	7	0.5	78	7	2015
International Journal of Environmental Research and Public Health	4	7	0.8	57	8	2018
Journal of Financial Stability	5	7	1	73	7	2018
Organization & Environment	6	7	1.2	100	7	2018
Review of Financial Studies	7	7	0.875	229	7	2015

Note: TC: total citation; NP: number of papers; PY: publication year.
Source: Authors' elaboration using Biblioshiny.

4.2.4. Top contributing authors

In order to determine the most productive authors, bibliometric studies have used various indicators like the number of publications (Farooq, 2022) and h-index (Keramatfar & Amirkhani, 2019; Nasir et al., 2020). In the present study, we have used the g-index, an author-level metric that combines quantity and impact to rank the most productive authors. Table 3 shows the most productive authors, whose research has played a pivotal role in expanding the theoretical and empirical foundations of sustainable finance, having a g-index > 5, which includes 11 authors. Taghizadeh-Hesary, F. is at number one on the list of authors engaged from 2019 with 11 papers, 531 citations, h-index 9, m-index 2.25, and g-index 11, followed by Wang, Y., engaged from 2011 with 11 papers, 221 citations, h-index 7, m-index 0.583, and g-index 11, and Roberts, J. T, engaged from 2011 with 110 papers, 229 citations, h-index 9, m-index 0.75, and g-index 10. Taghizadeh-Hesary, F. and Wang, Y. have the greatest number of publications, i.e., 11 in sustainable finance studies, while Taghizadeh-Hesary, F. has the highest citation of 531 received from 11 papers.

Table 3. The most productive authors based on publication volume and citation impact

Element	h-index	g_index	m_index	TC	NP	PY_start
Taghizadeh-Hesary, F.	9	11	2.25	531	11	2019
Wang, Y.	7	11	0.583	221	11	2011
Roberts, J. T.	9	10	0.75	229	10	2011
Polzin, F.	7	10	1	199	10	2016
Yoshino, N.	6	7	1.5	290	7	2019
Gollier, C.	4	7	0.333	50	7	2011
Crifo, P.	6	6	0.75	223	6	2015
Weikmans, R.	6	6	1	131	6	2017
Hoepner, A. G. F	5	6		48	8	
Monasterolo, I.	5	6	1	91	6	2018
Pickering, J.	5	6	0.625	118	6	2015

Note: TC: total citations, NP: number of papers, PY: publication year.
Source: Authors' elaboration using Biblioshiny.

4.2.5. Top institutions contributed to sustainable finance research

Table 4 presents the most productive institutions contributing to the scholarly development of sustainable finance. These institutions are demonstrating leadership in advancing sustainability. The table shows that the University of Zurich is most productive, with 41 articles, followed by the University of Oxford (38), Lanzhou University, the Swiss Federal Institute of Technology (ETH Zurich), and Utrecht University, with 36 articles, and 27 articles come from the University of Szczecin. There are 462 (51.73%) articles published by the top 20 sustainable finance research institutions. Stanford University of the USA, with a word ranking of 4, published 18 articles, followed by ETH Zurich and the University of Oxford, with a word ranking of 6, which published 36 and 38 articles, respectively. The top contributing institutions do not have a correlation with the world ranking of the university.

Table 4. The most productive institutions contributing to the scholarly development of sustainable finance

Affiliations	*Articles*	*World QS rating*	*Country ranking*	*Country*
University of Zurich	41	82	6	Zurich
University of Oxford	38	12	2	UK
Lanzhou University	36	NA	NA	China
Swiss Federal Institute of Technology (ETH Zurich)	36	6	1	Zurich
University Utrecht	36	75	2	Netherlands
University of Szczecin	27	NA	NA	Poland
University College Dublin	26	266	2	Ireland
Boston University	21	NA	NA	
Australian National University	20	66	1	Australia
Brown university	19	40	24	US
Stanford university	18	4	4	US
Tsinghua University	18	28	2	China
Capital University of economics and business	17	NA	NA	China
Environment Institute		NA	NA	SWEDEN
Maastricht University	16	NA	NA	Netherland
The Helmut Schmidt University	16	NA	NA	Germany
Central University of Finance and Economics	15	NA	NA	China
China University of Mining and Technology	15	580	53	China
École Polytechnique Fédérale de Lausanne	15	14	2	Switzerland
Kyushu University	15	137	NA	Japan
Total	**462**			

Note: NA: Not available.
Source: Authors' elaboration using Biblioshiny.

4.2.6. Top contributing countries

Table 5 highlights the leading countries actively engaged in sustainable finance research. The data reflects each country's academic productivity and influence, indicating the global diffusion of sustainability-focused financial scholarship. China is ranked first among the top 10 nations, followed by the USA in second place and the UK in third place in the WoS database, respectively. The top countries are China first, the USA second, and the UK third, each contributed 378 articles, which are 42.32% of the total articles selected for the study. In the database, the top sustainable finance research destinations are mostly industrialized countries. Developing countries like China, India, and South Africa have also begun to produce papers in the sustainable finance domain. China is also the highest Asian contributor, contributing 186 articles (20.82%). And over 55.76% of all sustainable finance publications in WoS come from the top five countries.

Table 5. The top contributing countries

Country	*Articles*	*Frequency*	*SCP*	*MCP*	*MCP_ratio*
China	186	0.21065	142	44	0.237
USA	101	0.11438	66	35	0.347
UK	91	0.10306	54	37	0.407
Germany	77	0.0872	46	31	0.403
France	43	0.0487	23	20	0.465
Italy	36	0.04077	22	14	0.389
Netherlands	32	0.03624	11	21	0.656
Australia	31	0.03511	21	10	0.323
Switzerland	31	0.03511	16	15	0.484
Poland	23	0.02605	17	6	0.261
Spain	23	0.02605	18	5	0.217
Sweden	22	0.02492	12	10	0.455
Japan	19	0.02152	10	9	0.474
Canada	18	0.02039	7	11	0.611
India	11	0.01246	8	3	0.273
Ireland	11	0.01246	1	10	0.909
South Africa	11	0.01246	5	6	0.545
Austria	10	0.01133	2	8	0.8
Korea	9	0.01019	5	4	0.444
Belgium	7	0.00793	0	7	1
Total	**792**		**486**	**306**	

Note: SCP: Single country paper; MCP: Multi-country paper.
Source: Authors' elaboration using Biblioshiny.

Table 6 shows that China, the USA, and the UK emerge as the top three highly yielding countries in sustainable finance research, with 1993, 1738, and 1642 citations. However, Japan produced low numbers of publications, 86, as compared to the top three. It is also notable that Japan's yields, in terms of an average citation of 26.11, have contributed to the field being at the top of the world on the basis of the per-article impact of the research. Further examination and study revealed that the trend of Africa and Asia in sustainability research has seen a growth in the number of publications.

Table 6. The total citation counts by country

Country	*Total citations*	*Average article citations*
USA	1993	19.73
China	1738	9.34
UK	1642	18.04
Germany	1157	15.03
France	664	15.44
Japan	496	26.11
Australia	456	14.71
Italy	398	11.06
Netherlands	369	11.53
Canada	361	20.06
Switzerland	349	11.26
Sweden	345	15.68
Spain	162	7.04
South Africa	134	12.18
Vietnam	128	25.60
Ireland	115	10.45
Austria	105	10.50
Finland	97	19.40
Pakistan	97	16.17
Belgium	84	12.00
	Total = 10890	**Average = 15.07**

Source: Authors' elaboration using Biblioshiny.

4.2.7. Country collaboration map

Figure 3 and Table 7 display the global collaborations on sustainable finance research. The countries having the highest research output on sustainable finance are actively collaborating. The USA and the UK are the top for collaboration. Germany is the most attractive country for collaboration in sustainable finance for the USA and the UK. Notably, the collaboration of the USA with European Union countries like Germany, Switzerland, and the UK is high. The USA has also shown close, tight collaboration with Canada.

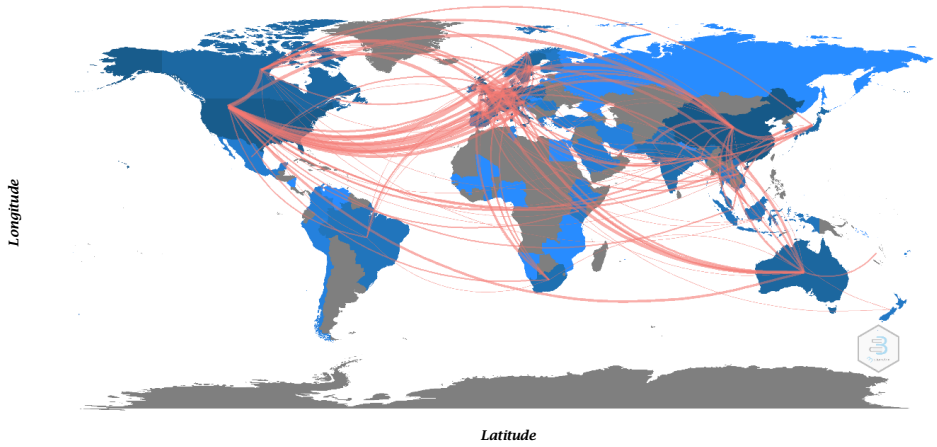
Table 7 represents the global collaboration network in sustainable finance research. Countries with stronger co-authorship ties show higher levels of international research involvement and knowledge exchange.

Table 7. Identification of clusters

From	*To*	*Frequency*
USA	UK	27
UK	Germany	26
USA	Germany	22
Germany	Netherlands	20
Germany	Switzerland	20
USA	Canada	19
UK	Sweden	16
UK	Belgium	14
USA	Switzerland	14
UK	Netherlands	13

Source: Authors' elaboration using Biblioshiny.

Figure 3. Country collaboration map



Source: Authors' elaboration using Biblioshiny.

4.3. Citation analysis: Most cited author

Table 8 and Figure 4 show that Chava S appears as the most cited work, amassing 224 citations with an annual average of 25, while El Ghoul S follows closely with 199 citations and a higher annual average of 33, showing stronger influence. It provides theoretical and empirical evidence on the impact of sustainable finance in enhancing the sustainability of firms. It is shown that Zhang D

has the highest average citation, 45 per year, which makes him a more influential writer in terms of the average citation per year.

Table 8 highlights the key authors actively involved in sustainable finance research during the period 2007–2021. The data reflects the evolution of the research community, showing both prolific contributors and emerging scholars in the field.

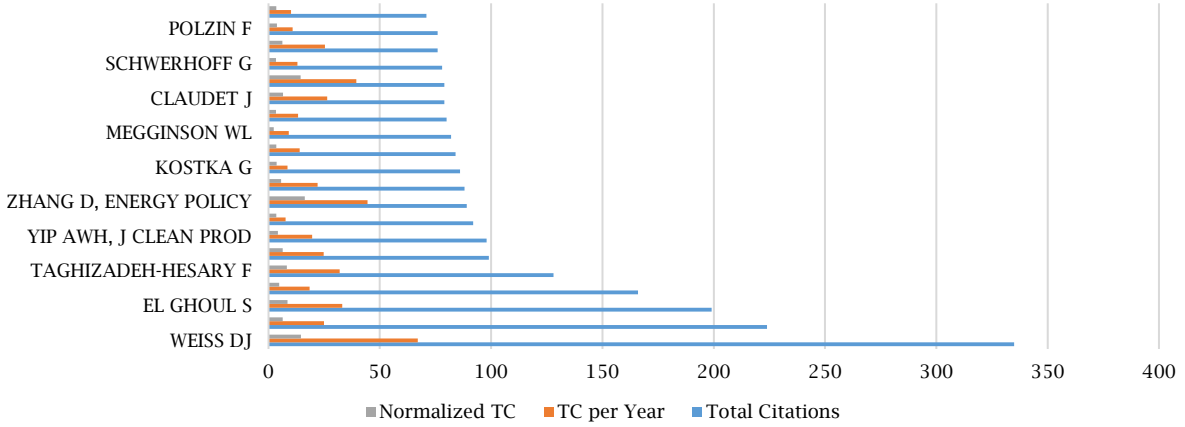
Figure 4 shows the leading authors who have contributed to sustainable finance research. The visualization highlights the most prolific and influential researchers based on publication volume and citation impact.

Table 8. Co-occurrence of sources

Paper	*Total citations*	*TC per year*	*Normalized TC*
CHAVA S	224	25	6
EL GHOUL S	199	33	8
NOFSINGER J	166	18	5
TAGHIZADEH-HESARY F	128	32	8
HARTZMARK SM	99	25	6
YIP AWH, J CLEAN PROD	98	20	4
ZHANG D, ENERGY POLICY	89	45	16
ZHANG D, FINANCE RES LETT	88	22	6
KOSTKA G	86	9	4
ROBIOU DU PONT Y	84	14	4
MEGGINSON WL	82	9	2
BLASIAK R	80	13	3
CLAUDET J	79	26	6
MOHSIN M	79	40	14
SCHWERHOFF G	78	13	3
DREMPETIC S	76	25	6
POLZIN F	76	11	4
CRIFO P	71	10	4

Source: Authors' elaboration using Biblioshiny.

Figure 4. Sustainable finance authors



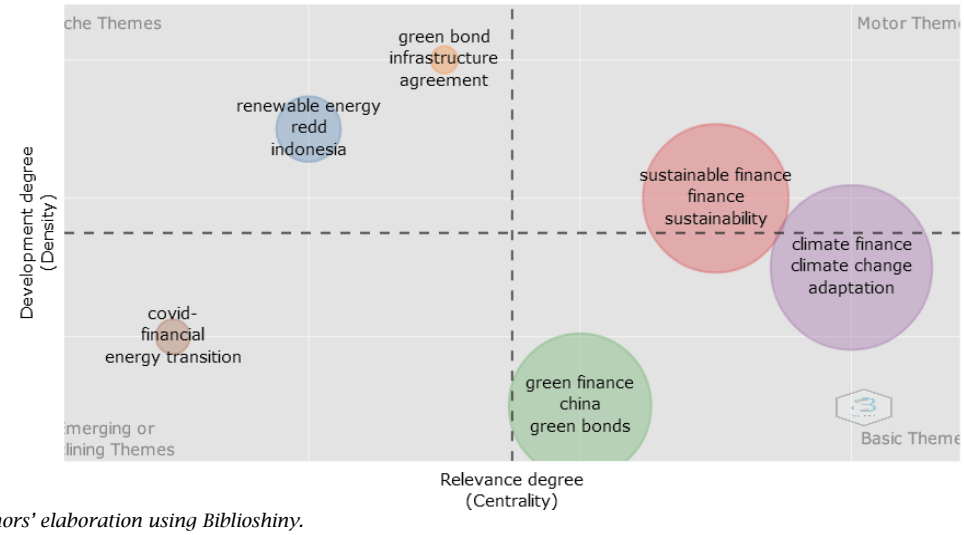
Source: Authors' elaboration using Biblioshiny.

4.4. Keyword analysis

4.4.1. Thematic map

According to Cobo et al. (2011), a thematic map offers a clear visual representation by categorizing topics within four distinct quadrants, based on two dimensions: centrality (x-axis) and density (y-axis). Themes located in the fourth quadrant are considered basic themes, having previously drawn major scholarly attention, but in recent times have become saturated. The themes located in the third quadrant of the map are typically identified as either emerging or declining, depending on their level of development and relevance. These themes may either fade in significance within the academic landscape or be further investigated and promoted by scholars. The second quadrant represents a very specific theme, having a kind of niche that is developed but in isolation. The themes in the first quadrant are developed motor themes. By observing the first quadrant, there is a lot of research done in the area of climate finance and sustainability. It is noteworthy that moving from the fourth quadrant to the first quadrant shows that these areas are going into the maturity or developed phase in the sustainable finance domain. As "sustainable finance and China green bond" transitions from the emerging to basic stage, it indicates that "green finance and China green bond" is also moving from the emerging to basic stage, highlighting these as new domains for further research. Green bonds, infrastructure agreements, and renewable energy are niche areas that can be developed. COVID financial and energy transition is in the lower-left quadrant, which means these are the emerging areas in the domain of finance (Figure 5).

Figure 5. The thematic map of sustainable finance research

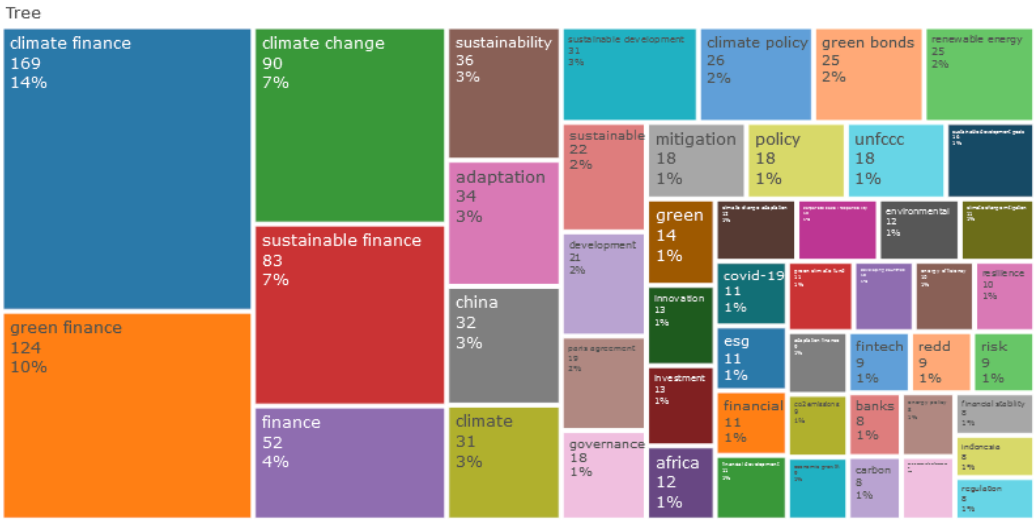


Source: Authors' elaboration using Biblioshiny.

4.4.2. Word tree map

Figure 6 displays the word tree map that visualizes the frequency and co-occurrence of keywords associated with sustainable finance research. It highlights the probable combination of keywords representing climate financing, green financing, climate change, sustainable finance, and finance. The largest rectangle of climate finance is the leading keyword. Figure 6 also indicates the recent choice of researchers to conduct studies on climate financing and green financing. It is clear from the word tree map that climate finance (14%), green finance (10%), and climate change (7%) are the dominant areas for research at the current time.

Figure 6. The word tree map



Source: Authors' elaboration using Biblioshiny.

4.4.3. Trend topic over the year

Table 9 illustrates the key terminologies frequently appearing in academic publications concerning sustainable finance and related disciplines. The frequency data provides insights into the temporal patterns of keyword usage. The year 2016 marked a pivotal shift in the trajectory of change. There was a significant surge in scholarly work on climate finance, peaking around 2020, after which a gradual decline was observed. The graphical representation of research activity on sustainable finance reflects this trend. The term "climate finance" appears 169 times across various publications. Utilizing this method provides a clearer visual interpretation of the evolving research focus. Green finance and sustainable finance have been exhibiting a rising trend, with one quarter of the search outcomes.

Table 9. The trend of topics within sustainable finance research

Item	*freq*	*year_q1*	*year_med*	*year_q3*
Climate finance	169	2016	2019	2020
Green finance	124	2019	2021	2021
Climate change	90	2017	2020	2021
Sustainable finance	83	2019	2021	2021
Finance	52	2017	2019	2021
Sustainability	36	2019	2020	2021
Adaptation	34	2013	2017	2019
China	32	2018	2021	2021
Climate	31	2017	2020	2021
Sustainable development	31	2019	2020	2021
Climate policy	26	2016	2019	2020
Green bonds	25	2020	2020	2021
Development	21	2012	2016	2019
Paris agreement	19	2019	2019	2021
Mitigation	18	2014	2016	2019
The United Nations Framework Convention on Climate Change (UNFCCC)	18	2014	2018	2020
Governance	18	2016	2019	2020
Policy	18	2018	2021	2021
Investment	13	2014	2018	2020
Africa	12	2017	2018	2018
Environmental	12	2019	2021	2021
Adaptation finance	9	2015	2018	2020
REDD	9	2017	2018	2019
Economic	7	2014	2014	2020
Climate negotiations	6	2011	2014	2017
Carbon markets	6	2014	2016	2017
Assistance	5	2015	2016	2019
Cities	5	2017	2017	2021
Infrastructure	5	2016	2017	2020
Politics	5	2015	2017	2019

5. DISCUSSION

Financial institutions, financial markets, and even policymakers and governments have all been and will continue to be interested in sustainable finance. Notably, both advanced and emerging countries are progressively seen as complying with SDG through sustainable finance (Elavarasan et al., 2021).

With the emergence of sustainable finance as a research field and a vast amount of transaction information available, future researchers are likely to be in a much better position to examine overt and covert causes and effects of many aspects (Chen & Ma, 2021; Zhang, 2021). This study confirms that interest in the sustainable finance domain is increasing, as the number of publications linked to sustainability has grown and the number of investments and regulators has increased (Li et al., 2020). More significantly, this study identifies the gaps that exist under each main issue, resulting in a number of recommendations that should serve as the foundation for future research on sustainable finance to become meaningful. Particularly, we find that the current corpus focuses on sustainable finance in its key topics (e.g., sustainable finance, sustainability, climate finance, climate change adoption, green finance, China green bonds, carbon financing, renewable energy). Green finance, carbon financing, and energy financing at first glance look the same, while a deeper study shows fine segregation. Green financing emphasizes boosting financial flow across all areas comprehensively to achieve sustainable development goals. Whereas carbon financing and energy financing are related to the domain of energy production and carbon emission reduction. We also acknowledge that the essential concepts are inextricably tied and, as a result, impact one another. The study also purposefully tried to explore the advanced direction for the future research agenda. By observation from literature published, which remains relatively unexplored, as summarized in the following sections.

5.1. Evolving core themes in climate and sustainable finance

The study shows that climate finance, green finance, climate change, and sustainable finance form the most dominant areas. Their high occurrence and strong centrality confirm that the literature increasingly converges around mechanisms for funding climate mitigation and adaptation. The temporal distribution highlights an upward trend after 2019, specifically with the global push following the Paris Agreement, growing ESG investment flows, and intensified climate-risk regulations. Figure 5 shows the motor themes in the first quadrant (high density and high centrality), suggesting that these topics drive scholarly development across the domain. It also overviews that strong interlinkages between “climate finance”, “sustainable finance”, and “climate change adaptation” indicate that financial mechanisms are increasingly being viewed as essential tools for achieving broader climate targets rather than separate economic instruments.

There are some important postures for further research on the questions below:

- How has the integration of climate and sustainable finance evolved?
- What factors determine the centrality of climate finance in shaping global adaptation and mitigation strategies?
- To what extent do regulatory and policy reforms influence the development of sustainable finance as a mainstream investment domain?

5.2. Emerging and context-specific themes: China, green bonds, and renewable energy

The thematic map identifies a cluster of green bonds, green finance in China, and renewable energy, which appears in the lower-right quadrant — indicating basic but rapidly developing themes. Their comparatively recent median years (2020–2021) imply that these are growing research fronts. The study finds that China is issuing a large amount of green bonds. Green finance and China green bonds are showing high relevance in the sustainable finance domain, and development is quite low. So, there is still an option for the growth of these themes. Additionally, it was discovered that in China, the finance cost of green bonds is equal to that of non-green bonds (Cao et al., 2021). As demonstrated by the following study, new approaches to reducing the cost and optimizing the returns of sustainable finance must be developed in the future. Additionally, themes such as infrastructure, Paris Agreement, policy, and environmental governance show moderate density, suggesting that researchers are increasingly examining institutional and governance aspects of green finance. Renewable energy, REDD+, and Indonesia appear as a niche in the sustainable finance domain but show importance in the regional area, such as Indonesia and its neighbourhood. These nice themes have importance in reducing carbon emissions in the region.

There are notable ideas for further study that we sum up in the form of research questions below:

- What role do green bonds play in accelerating renewable energy and low-carbon infrastructure, particularly in emerging economies such as China?
- How do country-specific governance frameworks shape the adoption and effectiveness of green finance instruments?
- What are the evolving linkages between REDD+, renewable energy transition, and climate-aligned financing mechanisms?

5.3. Decline trend in sustainable finance: COVID-19, financial energy transition, and early-stage concepts

Some clusters, such as COVID-19, energy transition, economic themes, assistance, and climate negotiations, appear in the lower-left quadrant, signifying declining or weakly connected themes. Carbon market and climate negotiation are the trends that appeared before 2017, as also shown in Table 9. While COVID-19 in the short run influenced research on financial resilience and stimulus-driven green recovery, its presence as a low-density theme suggests that academic attention diverted from it quickly. The pandemic in 2020 was an unusual worldwide calamity that has largely destroyed the world's advancement in sustainability, and has heightened the requirement for novel sustainable finance instruments that may mobilize funds for sustainable development for both developed and developing countries. According to some academics, financing for sustainable development and finance is still growing; as a result, additional empirical research in both developed and emerging markets must be done on a significant scale (Clark et al., 2018).

The tree map shows low-frequency but fundamentally important issues, such as carbon markets, governance, and risk, that might re-emerge as global financial regulation increasingly integrates climate-risk disclosures and carbon pricing frameworks.

There are notable ideas for further study that we sum up in the form of research questions below:

- How did the Covid-19 pandemic reshape short-term priorities in climate and sustainable finance research?
- What potential exists for re-integrating carbon markets, risk governance, and resilience into future climate-finance research agendas?

Many researchers were also addressing the need for thorough research on green financing, green bonds, green infrastructure bonds, climate financing, and energy financing. The majority of results are still ambiguous because the field continues to offer scarce insights into a wide range of finance, particularly in developing economies, except for China (Sinha et al., 2021).

6. CONCLUSION

To understand the holistic picture of sustainability research's performance, this study uses bibliometric analysis as part of a systematic literature review. Consequently, this work enriches sustainable finance research by employing bibliometric analysis to augment current information and increase visibility. The report presents the five principal insights derived from 893 papers on sustainable finance published during the past 15 years (2007–2022).

First, the performance analysis indicated a steady increase in publications. A notable portion of the literature originates from countries like China, the USA, and the UK, which have been early adopters of sustainable finance frameworks. Second, the analysis also discloses that most previous studies on sustainable finance concentrate on a single country, with earlier studies concentrating on developed countries. It is also notable that most studies are inclined toward the application of previous sustainable theories instead of the construction and testing of them. Third, the current research in sustainable finance primarily focuses on the relationship between sustainable finance and financial sustainability, as illustrated in Figure 5. The basic themes are green finance and China bonds. It is also noted that "climate finance" and "climate change adaptation" are becoming increasingly important themes. Fourth, fifty-one percent of the academics' overall study on sustainability was devoted to climate finance, green finance, climate change, sustainable finance, finance, sustainability adaptation, China, and climate. Fifth, by the study of trend topics in sustainable finance, namely green finance, sustainable finance, China, policy, environmental, climate change, sustainability, and sustainable development.

The study also found that climate finance, green finance, climate change, and sustainable finance are the most common types of finance. We saw that China is a major issuer of green bonds, which shows that it plays a big role in green finance. The results show that China's green bond market and green finance are very important themes in

the larger sustainable finance sector, but they are not growing as quickly as they could be. This study shows that there is a gap for growth and more in-depth research in these areas in the future. The study says that topics like the carbon market and climate negotiations were more common in publications before 2017. This suggests that academics and policymakers were more interested in these topics before the recent shift toward research on green and sustainable finance.

Even though this analysis makes a lot of important points, we know that there are still some problems with it. First, the WoS database does not guarantee that the research articles it has are correct and complete. Second, this assessment only looks at the framework of sustainable finance research in a general way. Although this approach aligns with the objectives and values of reviews that use bibliometric analysis, it makes large-scale reviews practically feasible. Therefore, we advocate for future investigations employing diverse approaches, including theory- or framework-driven reviews.

Future scholars can research these topics to advance the field, as outlined in the discussion section through specific research questions. Green bonds and renewable energy are key areas of sustainable finance research, which includes evolving and emerging trends such as climate finance, climate change adaptation, green finance, and China's green bonds.

The study is significant for researchers, academics, and people who make policy. Understanding global research trends and new and developing themes in sustainable finance can help governments and institutions make rules that encourage green investments and sustainable finance. This will help the world develop in a way that lasts. Also, finding niche areas that have not been fully explored yet could lead to better international cooperation and capacity-building in sustainable finance. That will help them learn more about and understand sustainable finance better.

REFERENCES

Alessandrini, F., & Jondeau, E. (2020). ESG investing: From sin stocks to smart beta. *The Journal of Portfolio Management, 46*(3), 75–94. https://doi.org/10.2139/ssrn.3357395

Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics, 11*(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007

Biju, A. V. N., Alora, A., Sasidharan, A., & Kallany, A. (2024). Investigating the factors determining green bond issuance in emerging markets: Emphasizing the direct and moderating role of board characteristics and ESG performance. *Corporate Ownership & Control, 21*(4), 60–74. https://doi.org/10.22495/cocv21i4art6

Bonaparte, I., & Mburu, H. K. (2025). Quality of corporate governance, firm value, and ESG controversies: Further evidence. *Corporate Ownership & Control, 22*(2), 157–170. https://doi.org/10.22495/cocv22i2art15

Cao, X., Jin, C., & Ma, W. (2021). Motivation of Chinese commercial banks to issue green bonds: Financing costs or regulatory arbitrage? *China Economic Review, 66*, Article 101582. https://doi.org/10.1016/j.chieco.2020.101582

Caseau, C., & Grolleau, G. (2020). Impact investing: Killing two birds with one stone? *Financial Analysts Journal, 76*(4), 40–52. https://doi.org/10.1080/0015198X.2020.1779561

Chava, S. (2014). Environmental externalities and cost of capital. *Management Science, 60*(9), 2223–2247. https://doi.org/10.1287/mnsc.2013.1863

Chen, L., Zhang, L., Huang, J., Xiao, H., & Zhou, Z. (2021). Social responsibility portfolio optimization incorporating ESG criteria. *Journal of Management Science and Engineering, 6*(1), 75–85. https://doi.org/10.1016/j.jmse.2021.02.005

Chen, Y., & Ma, Y. (2021). Does green investment improve energy firm performance? *Energy Policy, 153*, Article 112252. https://doi.org/10.1016/j.enpol.2021.112252

Clark, R., Reed, J., & Sunderland, T. (2018). Bridging funding gaps for climate and sustainable development: Pitfalls, progress and potential of private finance. *Land Use Policy, 71*, 335–346. https://doi.org/10.1016/j.landusepol.2017.12.013

Clarkin, J. E., & Cangioni, C. L. (2016). Impact investing: A primer and review of the literature. *Entrepreneurship Research Journal, 6*(2), 135–173. https://doi.org/10.1515/erj-2014-0011

Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). Science mapping software tools: Review, analysis, and cooperative study among tools. *Journal of the American Society for Information Science and Technology, 62*(7), 1382–1402. https://doi.org/10.1002/asi.21525

Cunha, F. A. F. D. S., Meira, E., & Orsato, R. J. (2021). Sustainable finance and investment: Review and research agenda. *Business Strategy and the Environment, 30*(8), 3821–3838. https://doi.org/10.1002/bse.2842

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. https://doi.org/10.1016/j.jbusres.2021.04.070

Dorfleitner, G., Halbritter, G., & Nguyen, M. (2015). Measuring the level and risk of corporate responsibility — An empirical comparison of different ESG rating approaches. *Journal of Asset Management, 16*(7), 450–466. https://doi.org/10.1057/jam.2015.31

Dorfleitner, G., Kreuzer, C., & Laschinger, R. (2021). How socially irresponsible are socially responsible mutual funds? A persistence analysis. *Finance Research Letters, 43*, Article 101990. https://doi.org/10.1016/j.frl.2021.101990

El Ghoul, S., Guedhami, O., & Kim, Y. (2017). Country-level institutions, firm value, and the role of corporate social responsibility initiatives. *Journal of International Business Studies, 48*(3), 360–385. https://doi.org/10.1057/jibs.2016.4

Elavarasan, R. M., Pugazhendhi, R., Shafiullah, G. M., Irfan, M., & Anvari-Moghaddam, A. (2021). A hover view over effectual approaches on pandemic management for sustainable cities — The endowment of prospective technologies with revitalization strategies. *Sustainable Cities and Society, 68*, Article 102789. https://doi.org/10.1016/j.scs.2021.102789

Farooq, R. (2024). A review of knowledge management research in the past three decades: A bibliometric analysis. *VINE Journal of Information and Knowledge Management Systems, 54*(2), 339–378. https://doi.org/10.1108/VJIKMS-08-2021-0169

Firdaus, A., Ab Razak, M. F., Feizollah, A., Hashem, I. A. T., Hazim, M., & Anuar, N. B. (2019). The rise of "blockchain": A bibliometric analysis of blockchain study. *Scientometrics, 120*(3), 1289–1331. https://doi.org/10.1007/s11192-019-03170-4

Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment, 5*(4), 210–233. https://doi.org/10.1080/20430795.2015.1118917

Fu, Y., Wright, D., & Blazenko, G. (2020). Ethical investing has no portfolio performance cost. *Research in International Business and Finance, 52*, Article 101117. https://doi.org/10.1016/j.ribaf.2019.101117

Giglio, S., Kelly, B., & Stroebel, J. (2021). Climate finance. *Annual Review of Financial Economics, 13*(1), 15–36. https://doi.org/10.1146/annurev-financial-102620-103311

Grove, H., Clouse, M., & Xu, T. (2024). Risk governance for environmental, social, and governance investing and activities. *Risk Governance and Control: Financial Markets & Institutions, 14*(4), 50–58. https://doi.org/10.22495/rgcv14i4p5

Halbritter, G., & Dorfleitner, G. (2015). The wages of social responsibility: Where are they? A critical review of ESG investing. *Review of Financial Economics, 26*(1), 25–35. https://doi.org/10.1016/j.rfe.2015.03.004

Hartzmark, S. M., & Sussman, A. B. (2019). Do investors value sustainability? A natural experiment examining ranking and fund flows. *The Journal of Finance, 74*(6), 2789–2837. https://www.jstor.org/stable/45222766

Jan, A. A., Lai, F.-W., & Tahir, M. (2021). Developing an Islamic corporate governance framework to examine sustainability performance in Islamic banks and financial institutions. *Journal of Cleaner Production, 315*, Article 128099. https://doi.org/10.1016/j.jclepro.2021.128099

Kazan, G., Uzun Kocamış, T., & Türüdüoğlu Öker, F. (2025). SDG 9-Industry, innovation and infrastructure: A review on companies in the BIST Sustainability Index [Special issue]. *Journal of Governance & Regulation, 14*(1), 307–317. https://doi.org/10.22495/jgrv14i1siart7

Keramatfar, A., & Amirkhani, H. (2019). Bibliometrics of sentiment analysis literature. *Journal of Information Science, 45*(1), 3–15. https://doi.org/10.1177/0165551518761013

Kollenda, P. (2022). Financial returns or social impact? What motivates impact investors' lending to firms in low-income countries. *Journal of Banking & Finance, 136*, Article 106224. https://doi.org/10.1016/j.jbankfin.2021.106224

Korom, P. (2019). A bibliometric visualization of the economics and sociology of wealth inequality: A world apart? *Scientometrics, 118*(3), 849–868. https://doi.org/10.1007/s11192-018-03000-z

Kostka, G., Moslener, U., & Andreas, J. (2013). Barriers to increasing energy efficiency: Evidence from small- and medium-sized enterprises in China. *Journal of Cleaner Production, 57*, 59–68. https://doi.org/10.1016/j.jclepro.2013.06.025

Kumar, P., Sahoo, T. K., Kafley, G. S., Jhawar, N., & Das, A. (2025). Bidirectional association between corporate financial performance and environmental, social, and governance performance. *Business Performance Review, 3*(1), 27–36. https://doi.org/10.22495/bprv3i1p3

Kumar, S., Pandey, N., Lim, W. M., Chatterjee, A. N., & Pandey, N. (2021). What do we know about transfer pricing? Insights from bibliometric analysis. *Journal of Business Research, 134*, 275–287. https://doi.org/10.1016/j.jbusres.2021.05.041

Kumar, S., Sharma, D., Rao, S., Lim, W. M., & Mangla, S. K. (2025). Past, present, and future of sustainable finance: insights from big data analytics through machine learning of scholarly research. *Annals of Operations Research, 345*(2), 1061–1104. https://doi.org/10.1007/s10479-021-04410-8

Li, W., Zheng, M., Zhang, Y., & Cui, G. (2020). Green governance structure, ownership characteristics, and corporate financing constraints. *Journal of Cleaner Production, 260*, Article 121008. https://doi.org/10.1016/j.jclepro.2020.121008

MacDonald, A., Clarke, A., & Huang, L. (2019). Multi-stakeholder partnerships for sustainability: Designing decision-making processes for partnership capacity. *Journal of Business Ethics, 160*(2), 409–426. https://doi.org/10.1007/s10551-018-3885-3

Malhotra, G., & Thakur, K. S. (2020). Evolution of green finance: A bibliometric approach. *Gedrag & Organisatie Review, 33*(2), 583–594. https://www.researchgate.net/publication/340872976_Evolution_of_Green_Finance_A_Bibliometric_Approach

Migliorelli, M. (2021). What do we mean by sustainable finance? Assessing existing frameworks and policy risks. *Sustainability, 13*(2), Article 975. https://doi.org/10.3390/su13020975

Muttaqi, J. A. A., & Nur, T. (2025). How gender diversity shapes the influence of ESG on dividend policy: Insights from the corporate boards in an emerging market. *Corporate Board: Role, Duties and Composition, 21*(1), 71–81. https://doi.org/10.22495/cbv21i1art7

Nasir, A., Shaukat, K., Hameed, I. A., Luo, S., Alam, T. M., & Iqbal, F. (2020). A bibliometric analysis of corona pandemic in social sciences: A review of influential aspects and conceptual structure. *IEEE Access, 8*, 133377–133402. https://doi.org/10.1109/ACCESS.2020.3008733

Ng, A. W. (2018). From sustainability accounting to a green financing system: Institutional legitimacy and market heterogeneity in a global financial centre. *Journal of Cleaner Production, 195*, 585–592. https://doi.org/10.1016/j.jclepro.2018.05.250

Nguyen, T. M. P., & Hoang, T. M. (2025). Factors affecting the environmental, social, and governance reporting capability of listed companies on the Vietnamese stock market. *Corporate & Business Strategy Review, 6*(1), 145–155. https://doi.org/10.22495/cbsrv6i1art14

Nofsinger, J., & Varma, A. (2014). Socially responsible funds and market crises. *Journal of Banking & Finance, 48*, 180–193. https://doi.org/10.1016/j.jbankfin.2013.12.016

Oza, P., & Patekar, A. (2024). Does environmental, social, and governance strategy lead to better firm performance: Analysis of NIFTY 500 companies. *Corporate Governance and Sustainability Review, 8*(2), 24–36. https://doi.org/10.22495/cgsrv8i2p2

Paul, J., Lim, W. M., O'Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). *International Journal of Consumer Studies, 45*(4), 1–16. https://doi.org/10.1111/ijcs.12695

Popescu, I.-S., Hitaj, C., & Benetto, E. (2021). Measuring the sustainability of investment funds: A critical review of methods and frameworks in sustainable finance. *Journal of Cleaner Production, 314*, Article 128016. https://doi.org/10.1016/j.jclepro.2021.128016

Pratap, V. & Singh, A. (2023). *Role of system dynamics in finance: A systematic literature review.* https://doi.org/10.5281/zenodo.7882362

Pratap, V. (2023). Working capital management: A systematic literature review. *Empirical Economics Letters, 22*(2), 61–93. https://doi.org/10.5281/zenodo.10463289

Rao, P., Kumar, S., Chavan, M., & Lim, W. M. (2021). A systematic literature review on SME financing: Trends and future directions. *Journal of Small Business Management*, *61*(3), 1247–1277. https://doi.org/10.1080/00472778.2021.1955123

Rey-Martí, A., Ribeiro-Soriano, D., & Palacios-Marqués, D. (2016). A bibliometric analysis of social entrepreneurship. *Journal of Business Research, 69*(5), 1651–1655. https://doi.org/10.1016/j.jbusres.2015.10.033

Rubab, A., Alam, A., Haque, E., Saghir, V., Siddiqui, F., Khan, H., & Tasneem, N. (2025). A critical review of environmental, social, and governance factors influencing sustainable investment decisions. *Corporate Governance and Sustainability Review, 9*(1), 68–85. https://doi.org/10.22495/cgsrv9i1p6

Sihombing, T., & Nurhaliza, H. K. (2025). The influence of audit committee characteristics and audit quality on ESG performance with sustainable growth rate as a moderation variable. *Corporate Governance and Sustainability Review, 9*(3), 45–54. https://doi.org/10.22495/cgsrv9i3p3

Sinha, A., Mishra, S., Sharif, A., & Yarovaya, L. (2021). Does green financing help to improve environmental and social responsibility? Designing SDG framework through advanced quantile modelling. *Journal of Environmental Management, 292*, Article 112751. https://doi.org/10.1016/j.jenvman.2021.112751

Statman, M. (2000). Socially responsible mutual funds. *Financial Analysts Journal, 56*(3), 30–39. https://doi.org/10.2469/faj.v56.n3.2358

Taghizadeh-Hesary, F., & Yoshino, N. (2019). The way to induce private participation in green finance and investment. *Finance Research Letters, 31*, 98–103. https://doi.org/10.1016/j.frl.2019.04.016

Tan, X., & Tuluca, S. A. (2024). Liquidity and profitability's effect on the environmental, social, and governance scores of S&P 500 companies. *Corporate Governance and Sustainability Review, 8*(4), 22–29. https://doi.org/10.22495/cgsrv8i4p2

United Nations. (2023). *Financing for sustainable development report 2023: Financing sustainable transformations.* https://financing.desa.un.org/sites/default/files/2023-04/FSDR_2023_Overview_0.pdf

Vanderheiden, S. (2015). Justice and climate finance: Differentiating responsibility in the Green Climate Fund. *The International Spectator, 50*(1), 31–45. https://doi.org/10.1080/03932729.2015.985523

Widyawati, L. (2020). A systematic literature review of socially responsible investment and environmental social governance metrics. *Business Strategy and the Environment, 29*(2), 619–637. https://doi.org/10.1002/bse.2393

Yip, A. W. H., & Bocken, N. M.P. (2018). Sustainable business model archetypes for the banking industry. *Journal of Cleaner Production, 174*, 150–169. https://doi.org/10.1016/j.jclepro.2017.10.190

Zhang, D. (2021). How environmental performance affects firms' access to credit: Evidence from EU countries. *Journal of Cleaner Production, 315*, Article 128294. https://doi.org/10.1016/j.jclepro.2021.128294

Zhang, D., Mohsin, M., Rasheed, A. K., Chang, Y., & Taghizadeh-Hesary, F. (2021). Public spending and green economic growth in BRI region: Mediating role of green finance. *Energy Policy, 153*, Article 112256. https://doi.org/10.1016/j.enpol.2021.112256

Zhang, D., Zhang, Z., & Managi, S. (2019). A bibliometric analysis on green finance: Current status, development, and future directions. *Finance Research Letters, 29*, 425–430. https://doi.org/10.1016/j.frl.2019.02.003