RESEARCH TRENDS IN GREEN FINANCE: A BIBLIOMETRIC ANALYSIS

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Abstract:
This study aims to map global trends in green finance research using a big data-based bibliometric approach. This study is motivated by the importance of understanding the impacts of climate change, environmental degradation, and carbon emissions on the environment. Data were obtained from the Scopus database, covering English-language journal articles in the fields of Economics, Econometrics, and Finance, as well as Business, Management, and Accounting, for the period 2016 - 2026. The analytical methods include the PRISMA protocol, co-occurrence analysis to identify key terms, and co-authorship analysis to map author collaboration networks. The results indicate that dominant themes include green finance, Sustainable Development, Green Innovation, Green Bonds, and Renewable Energy, with the highest concentration of publications originating from China, India, Malaysia, and the United Kingdom. Network visualizations indicate that academic collaboration remains concentrated within specific groups, while topics such as sustainable performance and corporate sustainability are beginning to emerge. This study concludes that mapping bibliometric trends can provide a comprehensive overview of the direction and dynamics of research on green finance and encourage broader global collaboration in future research.
Keywords: Green Finance; Sustainable Development; Green Economy; Green Bonds; Green Innovation

Abstrak
Penelitian ini bertujuan untuk memetakan tren global penelitian mengenai green finance melalui pendekatan bibliometrik berbasis big data. Penelitian ini dilatarbelakangi oleh pentingnya pemahaman atas dampak perubahan iklim, degradasi lingkungan, dan emisi karbon terhadap lingkungan. Data diperoleh dari database Scopus dengan cakupan artikel jurnal berbahasa Inggris pada bidang Economics, Econometrics, and Finance dan Business, Management and Accounting selama periode 2016 - 2026. Metode analisis mencakup protokol PRISMA, analisis co-occurrence untuk mengidentifikasi kata kunci utama, serta co-authorship untuk memetakan jaringan kolaborasi penulis. Hasil penelitian menunjukkan bahwa tema-tema dominan meliputi green finance, Sustainable Development, Green Innovation, Green Bonds, dan Renewable Energy, dengan konsentrasi publikasi tertinggi berasal dari China, India, Malaysia, dan United Kingdom. Visualisasi jaringan menunjukkan bahwa kolaborasi akademik masih terfokus pada kelompok tertentu, sementara beberapa topik sustainable performance dan corporate sustainability mulai berkembang. Studi ini menyimpulkan bahwa pemetaan tren bibliometrik dapat memberikan gambaran menyeluruh terhadap arah dan dinamika penelitian mengenai green finance serta mendorong kolaborasi global yang lebih luas dalam penelitian mendatang.
Kata Kunci: Keuangan Hijau; Pembangunan Berkelanjutan; Ekonomi Hijau; Obligasi Hijau; Inovasi Hijau

1. Introduction

Climate change, environmental degradation, and rising carbon emissions have become global issues over the past two decades. In addressing these challenges, the concept of green finance has emerged as an approach focused on structured financial activities designed to support environmental improvement and conservation. This concept encompasses various forms of loans, financing instruments, and investments aimed at promoting the development of sustainable and environmentally friendly projects, while simultaneously reducing the climate impacts generated by conventional projects (Bhatnagar et al., 2022). According to the G20 research group's definition, green finance is financing with significant potential for the environment within the framework of sustainable and ecologically sound development (Ali et al., 2021). Green finance plays a crucial role in strengthening economic resilience while driving sustainable green innovation, particularly for companies with high levels of financial risk (Wang et al., 2023). Green finance does not only focus on achieving economic gains but also considers

social and environmental aspects through the application of various instruments, such as green bonds, sustainable investments, carbon financing, and ESG (Environmental, Social, and Governance)-based financing (Krastev, 2024).

Green finance has grown rapidly over the past decade as governments, financial institutions, and investors have increasingly focused on sustainability issues. Various countries have begun incorporating green finance policies into their national financial systems to support carbon emission reduction targets and accelerate the transition to clean energy. However, each country's economic conditions influence the relevance and implementation of green finance. Developed countries generally possess greater economic capacity to support various sustainability-oriented activities, whereas developing countries still face significant funding challenges in achieving their national goals (Bhatnagar et al., 2022). In this context, the adoption of green bonds is seen as a potential solution to the financing constraints that have long hindered the development of green projects, particularly in the renewable energy sector, which continues to grow (Banga, 2018). Furthermore, the growth of the green bond market and sustainable investments indicates that green finance has evolved into one of the primary focuses within the global financial system (Gafoor et al., 2024).

Interest in green finance continues to grow, driving an increase in publications on the subject. Research on green finance is evolving in a multidisciplinary manner, covering a wide range of topics, such as sustainable finance, carbon emissions, renewable energy, climate policy, green banking, and ESG investing. Research (Chandran & Chandran, 2024) found that green finance research is dominated by several countries, such as China, the United States, and the United Kingdom, with a primary focus on green technology innovation, carbon emissions, and sustainable development. These findings underscore the critical role of green finance in supporting the achievement of sustainable development and driving the implementation of various initiatives aimed at environmental conservation. Research (Krastev, 2024) indicates that issues such as carbon neutrality, climate risk, green innovation, renewable energy financing, and ESG disclosure are becoming increasingly prominent themes in the green finance literature.

Although the number of publications on green finance continues to rise, research that comprehensively maps the development of the literature in this field remains limited. Most previous studies have focused primarily on empirical analyses of the impact of green finance on economic growth, environmental quality, and corporate performance. However, most of these studies remain fragmented and have not yet been able to provide a comprehensive mapping of the collaborative structure, key themes, and publication dynamics within the international literature. Therefore, bibliometric analysis is crucial as it can provide a systematic overview of the intellectual structure and the development or evolution of research in the field of green finance (Mohanty et al., 2023). Without a comprehensive mapping, the literature's contribution to green finance practices risks being incomplete, partial, and difficult to evaluate objectively.

Based on this phenomenon, this study aims to identify and map the development of research on green finance in the international scientific literature over the past ten years through a bibliometric analysis of articles indexed in the Scopus database. This study focuses on analyzing publication trends, identifying contributing authors, and exploring the main themes and topics emerging in green finance research. Through the results of this mapping, this study is expected to provide a more comprehensive overview of the development and patterns of green finance research, as well as serve as a reference for researchers in identifying opportunities and directions for future research. Additionally, the findings of this study are also expected to serve as a basis for consideration by practitioners and policymakers in formulating more effective strategies for sustainable finance development and green investment policies.

2. Research Methods

2.1. Object, time and Place

The data used in this study were obtained from the Scopus database (www.scopus.com). Scopus was selected because it has a broad coverage of scientific publications and provides comprehensive and credible bibliometric metadata across various fields of study. Inclusion criteria include articles from English-language journals in the categories of Economics, Econometrics, and Finance, and Business, Management, and Accounting, published between 2016 and 2026. Document types were limited to journal articles, excluding books and conference proceedings due to their more limited theoretical contributions. The search language was restricted to English to avoid linguistic bias, although non-English studies were still analyzed separately by researchers proficient in the relevant languages. The keyword used for data collection was "green finance."

2.2. Data Collection Techniques

This study employs a bibliometric analysis method to explore research trends related to green finance. The research approach follows the Preferred Reporting Items for Systematic Reviews and Meta-

Analyses (PRISMA) protocol, which comprises four stages: identification, screening, eligibility assessment, and inclusion (Moher et al., 2009). By applying a bibliometric approach combined with the PRISMA protocol, this study aims to map the development of green finance literature based on bibliometric analysis to identify research opportunities and future research directions.

2.3. Data Analysis Techniques

This study employs two primary bibliometric techniques: co-occurrence analysis and co-authorship analysis. Co-occurrence analysis assumes that the frequency of keywords appearing together indicates a strong relationship between terms in the literature (Zupic, 2023). The results of the co-occurrence analysis are used to identify major themes and trends in green finance research. Meanwhile, co-authorship analysis examines collaboration patterns among authors in producing scientific publications, thereby providing an overview of academic and institutional collaboration networks. Thus, this technique can reveal key factors and dominant partnerships in this field of research.

This study uses VOSviewer software, which can visualize keyword relationships and author collaborations. The final data search was conducted on May 13, 2026, using the following search query: TITLE-ABS-KEY ("Green Finance") with filters for publication years 2016 to 2026, subject fields Economics, Econometrics, and Finance and Business, Management and Accounting, language English, source journal articles, and publication status final. The research protocol used in this study can be seen in the following figure:

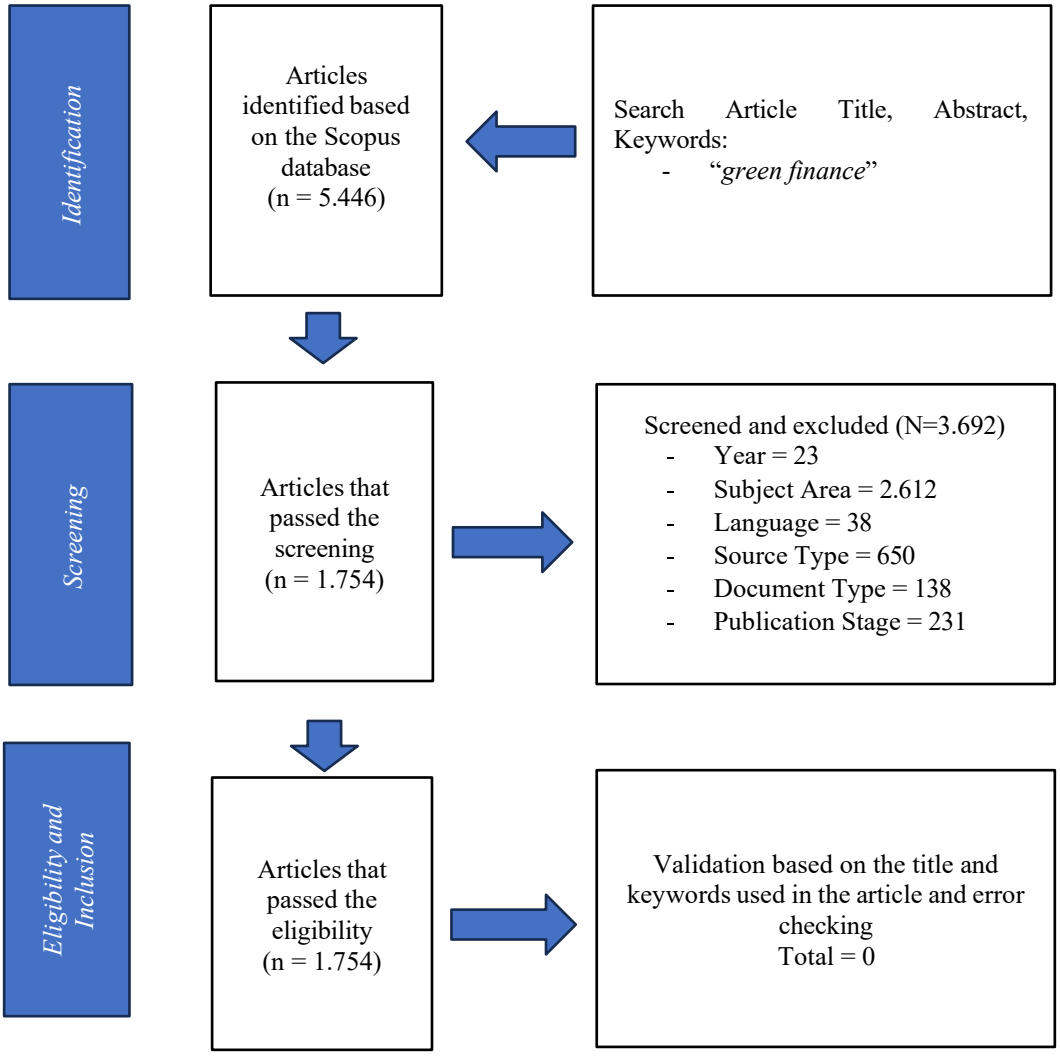

Figure 1. Research Protocol PRISMA
Sources: Data Processed, 2026.

3. Results and Discussion

The results and discussion sections should be presented systematically to explain the research findings and their meaning. Here is a general structure that can be used:

3.1. Publication Trends

Figure 2 shows the trend in the publication of articles on green finance from 2016 to 2026. As shown in the figure, research on green finance has shown a significant year-over-year increase, particularly from 2021 onward, reaching its peak in 2025. During the 2016 - 2020 period, the number of publications was still relatively small and grew slowly. However, starting in 2021, there was a very rapid surge in the number of publications, indicating that green finance is increasingly becoming a major focus in academic research. Meanwhile, the decline in the number of publications in 2026 is likely due to the fact that publication data for that year has not yet been fully indexed and therefore does not yet reflect the actual number.

The rising trend in green finance publications is driven by growing global attention to issues of climate change, environmental sustainability, and sustainable development. Regulations related to sustainable finance and growing investor interest in green investments are also factors accelerating the development of green finance research in various countries. These findings are consistent with research conducted by (Muchiri et al., 2022), which indicates an increasing trend in scientific publications on green finance since 2015. This increase also indicates growing interest among researchers in developing studies on green finance as one solution to address climate change (Muchiri et al., 2022). The rising trend in publications is illustrated in Figure 2 below.

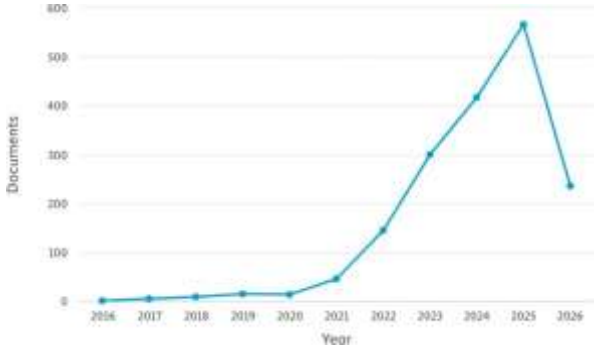

Figure 2. Evolution in Number of Production Articles
Image sources: Scopus, 2026.

3.2. Leading Countries in Research

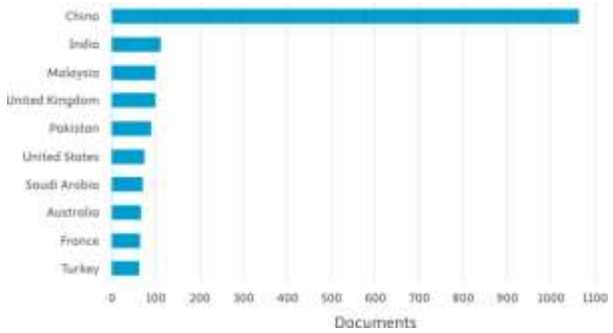

Figure 3. Most Contributing Countries
Image Sources: Scopus, 2026.

As shown in Figure 3, research on green finance is dominated by China, which has produced more than 1.000 publications. This indicates that China's dominance reflects the high level of attention from the government, academia, and the financial sector toward the development of a green economy and the implementation of sustainable financial policies. China actively promotes the development of green bonds, environmentally friendly investments, and net-zero emission policies, resulting in a significant increase in research in the field of green finance. Next, India holds the second position, followed by Malaysia and the United Kingdom, with a relatively high number of publications compared to other countries.

The significant contributions from these countries indicate that the issue of green finance is growing rapidly not only in developed nations but also in developing countries. This is driven by increasing attention to climate change, the clean energy transition, and the implementation of the Sustainable Development Goals (SDGs), which are spurring research on green investment, ESG, and sustainable finance. Additionally, government regulatory support and the growing need for financing

sustainable projects further strengthen the development of green finance research across various countries.

Table 1. 10 Most Contributing Countries

Number	Country	Documents
1	China	1063
2	India	111
3	Malaysia	100
4	United Kingdom	100
5	Pakistan	89
6	United States	74
7	Saudi Arabia	70
8	Australia	67
9	France	65
10	Turkey	63

Sources: Scopus, 2026.

Table 1 shows the top ten countries that have contributed the most to publications on green finance. As shown in the table, China ranks first with the highest number of publications, totaling 1,063 documents. India ranks second with 111 documents, followed by Malaysia and the United Kingdom with 100 documents each.

Table 2. Top 10 Institutions Funding Research on Green Finance

No	Organisasi	Wilayah	Jumlah Publikasi
1	Zhongnan University of Economics and Law	China	38
2	Southwestern University of Finance and Economics	China	36
3	Qingdao University	China	35
4	Lebanese American University	Amerika Serikat	32
5	Capital University of Economics and Business	China	30
6	City University of Macau	China	29
7	Adnan Kassar School of Business	Lebanon	29
8	Xi'an Jiaotong University	Tiongkok	27
9	Nanjing University of Finance and Economics	China	25
10	Wuhan University	China	24

Sources: Scopus, 2026.

Table 2 shows the top ten institutions most active in publishing research on green finance. Institutions from China dominate this list, with Zhongnan University of Economics and Law, Southwestern University of Finance and Economics, and Qingdao University having the highest number of publications. The dominance of Chinese institutions indicates that the country places a strong emphasis on the development of green finance research, particularly in support of green economic policies and sustainable development.

The dominance of Chinese institutions in green finance research is driven by strong government support for sustainable finance policies, green investment, and the transition to a low-carbon economy. China has become one of the countries actively developing green financial instruments such as green bonds and Environmental, Social, and Governance (ESG) policies, thereby fostering increased academic collaboration and scientific publications related to green finance. This situation indicates that the development of green finance research is significantly influenced by support from educational institutions, government policies, and growing global attention to issues of climate change and environmental sustainability.

Table 3. Top 10 Institutions Funding Research on Green Finance

Number	Organizations	Region	Numbers
1	National Natural Science Foundation of China	China	224
2	National Office for Philosophy and Social Sciences	China	138

3	National Social Science Fund of China	China	76
4	Fundamental Research Funds for the Central Universities	China	43
5	Ministry of Education of the People's Republic of China	China	41
6	Japan Society for the Promotion of Science	Japan	18
7	China Postdoctoral Science Foundation	China	15
8	Humanities and Social Science Fund of Ministry of Education of China	China	15
9	Ministry of Education, Culture, Sports, Science and Technology	Indonesia	13
10	Natural Science Foundation of Shandong Province	China	13

Sources: Scopus, 2026.

Table 3 shows that more than 500 articles originated from the five major universities that contributed to this study. Of all the publications analyzed, 224 articles were published by the National Natural Science Foundation of China. Meanwhile, the Natural Science Foundation of Shandong Province produced only 3 publications on green finance.

3.3. Journal Analysis

Figure 4 visually presents the annual number of publications from the top 10 journals in the field of green finance over the past ten years. Finance Research Letter stands out among the selected journals, as it has shown a consistent increase in the number of annual publications during the 2016 - 2026 period. This increase in the number of publications aligns with post-pandemic global policies that focus on green recovery as part of sustainable development plans. Research on green finance published in various journals shows significant differences. Figure 4 indicates that the annual number of publications in each journal fluctuates over time.

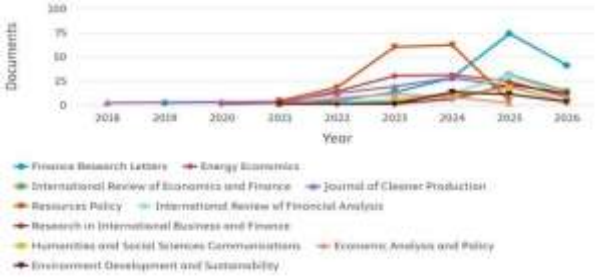

Figure 4. Top 10 Journals by Annual Production

Image Sources: Scopus, 2026.

Table 4 presents the top ten journals with the most relevant publications, accounting for 43% of the total articles identified. Among all journals, Finance Research Letters is the most productive with 162 publications, demonstrating its dominance in the field of green finance forecasting. Resources Policy ranks second with 148 publications, reflecting the high level of attention to resource policy issues within the context of green finance. Next, in third place is Energy Economics with 53 articles, followed by the Journal of Cleaner Production with 38 articles. Both journals focus on energy economics and cleaner production, thereby demonstrating a strong link between green finance and sustainable energy management (Olii et al., 2025).

Table 4. Top 10 Journals by Annual Production

Number	Journal	Document
1	Finance Research Letters	162
2	Resources Policy	148
3	Energy Economics	110
4	Journal of Cleaner Production	89
5	International Review of Economics and Finance	61
6	International Review of Financial Analysis	60
7	Research in International Business and Finance	41
8	Humanities and Social Sciences Communications	35
9	Economic Analysis and Policy	29
10	Environtment Development and Sustainability	29

Sources: Scopus, 2026.

3.4. Keyword Co-Occurrence

Figure 5 depicts a network visualization of keywords in green finance research, showing the relationships between topics based on co-occurrence. Each node (point) represents a keyword, while the connecting lines indicate the strength of the relationship between those keywords. The larger the node, the higher its frequency of occurrence in the literature. The figure shows various node colors that are automatically grouped to indicate conceptual relationships between keywords, where each color represents interconnected thematic focuses that have different emphases.

The purple cluster serves as the central hub of the network because it is dominated by keywords such as "green finance" and "carbon neutrality." Surrounding this cluster are "carbon emissions" and "digital economy," which act as supporting issues that reinforce the context of this transition. The relationship patterns within this cluster appear to be widespread because the concepts of "green finance" and "carbon neutrality" have broad connections to various other fields such as digital technology, energy policy, and carbon emissions issues, making its position more central and enabling it to function as a connector between other clusters in the network

The red cluster encompasses "renewable energy," "environmental policy," and "sustainable banking," with "climate policy" serving as the primary link between the three. This indicates that climate policy acts as a binding variable that bridges the development of renewable energy, environmental regulations, and sustainable banking practices. This cluster underscores that the transformation of the energy and financial sectors is heavily influenced by a robust policy framework. The green cluster consists of "environmental sustainability" and "natural resources," representing aspects of environmental sustainability and natural resource management. This cluster is relatively more focused and specific, indicating that these two concepts are closely linked conceptually in addressing ecosystem sustainability and the responsible use of resources.

The blue cluster includes "ESG," "green bonds," and "green investment," with "financial constraints" and "corporate governance" serving as connecting factors among the three. This cluster indicates that the implementation of green investments and sustainable financial instruments is significantly influenced by a company's financial condition and the quality of its governance. Thus, ESG aspects do not stand alone but are integrated with a company's financial structure and management. The brown cluster encompasses "green innovation" and "green finance policy," illustrating the relationship between green innovation and green finance policy. This cluster indicates that the development of innovation in the sustainable sector is heavily influenced by regulatory support and policies that encourage the adoption of environmentally friendly technologies.

The orange cluster consists of "clean energy" and "climate policy uncertainty," linked by "green financial markets." This relationship indicates that green financial markets serve as a mechanism that responds to climate policy uncertainty by driving investment in clean energy. In other words, green financial markets act as a bridge connecting policy risks with clean energy investment opportunities. Finally, the yellow cluster includes "financial performance," "environmental awareness," and "impact investing." This cluster indicates that environmental awareness and impact investing are not only sustainability-oriented but also continue to consider financial performance as a key indicator in investment decision-making.

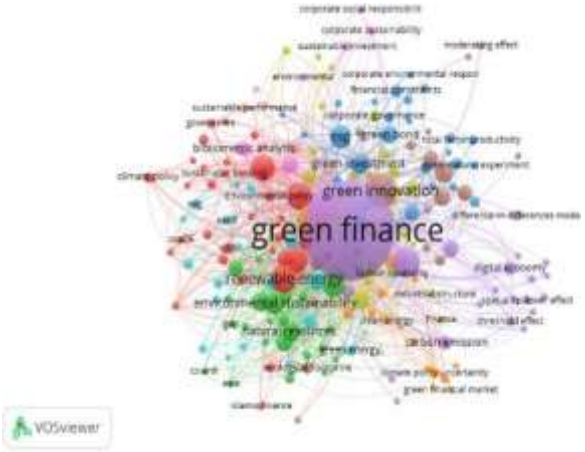

Figure 5. Co-occurrence Network Analysis
Image Sources: VOSviewer, 2026.

Figure 6 illustrates the temporal development of research on green finance from 2016 to 2026. Purple to blue colors indicate topics discussed earlier, while green to yellow colors indicate the most

recent topics. During the period from late 2023 to early 2024, topics such as "carbon emissions," "renewable energy," "green energy," and "green bonds" were the most prominent in the research. This indicates that research focus is shifting toward efforts to reduce carbon emissions, the development of environmentally friendly energy sources, and the role of sustainable financial instruments such as green bonds in supporting the transition toward a more sustainable economy.

By the mid-2024 period, the focus of research has shifted toward more specific and integrated themes, such as "environmental sustainability," "ESG," "clean energy," and "digital economy." This shift indicates that researchers are increasingly focusing on environmental sustainability combined with corporate governance practices, the development of clean energy, and the use of digital transformation as a driver of sustainable economic growth.

In the most recent period, from 2024 to 2025, shades ranging from light green to bright yellow indicate the emergence of more developed and specific research themes, such as "sustainable performance," "governance," "green innovation," and "corporate sustainability." This reflects that current research is beginning to place greater emphasis on improving corporate sustainable performance, strengthening governance, and green innovation as key factors in supporting business sustainability. This shift in focus indicates that green finance is now increasingly recognized as a supporting element in fostering corporate sustainability, emphasizing the importance of effective governance, green innovation, and enhanced sustainable performance in achieving sustainable development goals.

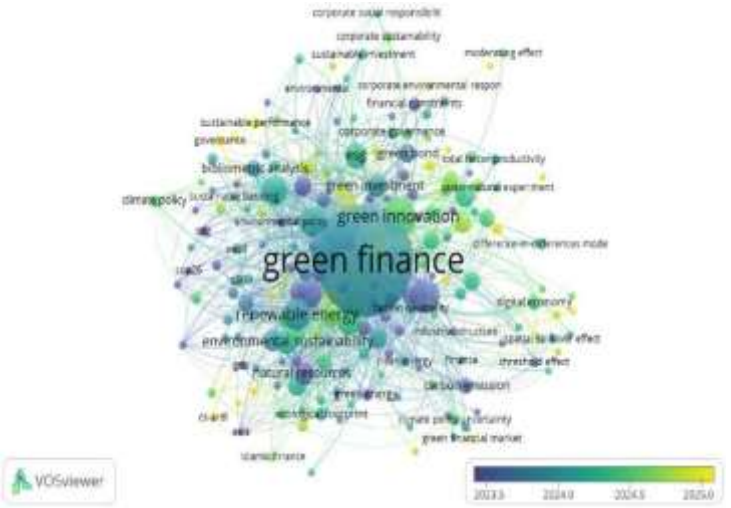

Figure 6. Keyword Overlay Visualization
Image Sources: VOSviewer.

The density visualization shows the frequency of occurrence and the relationships between keywords in research on green finance. The yellow areas represent high density, indicating that these keywords have a high frequency of occurrence and strong connections with various other keywords. Meanwhile, green to blue colors depict lower density levels, indicating relatively fewer occurrences and connections. The keyword "green finance" appears to have the highest density compared to others, indicating that this topic is the primary focus of discussion in the research literature on green finance.

Areas with medium to low density, such as "green innovation," "renewable energy," "environmental sustainability," and "carbon neutrality," although not as dense as the main keywords, still make an important contribution to shaping the knowledge structure in this field. The interconnection of these topics with the core of the map indicates that these issues play a role in expanding and reinforcing the main discussions, particularly those related to the development of green innovation, the transition to renewable energy, the enhancement of environmental sustainability, and efforts to achieve carbon neutrality. Overall, this map indicates that green finance research not only focuses on key aspects such as sustainability and innovation but is also supported by strategic themes that drive a more comprehensive transformation toward a low-carbon economy.

Figure 7. Keyword Density Visualization
Image Sources: VOSviewer, 2026.

Table 5 presents the 15 most frequently used keywords in research on green finance. The keyword "Green Finance" ranks first with a total of 976 occurrences and a total link strength of 1.695, indicating that green finance is a primary focus in the literature. This is followed by the topics of Sustainable Development, Green Innovation, Green Bonds, and Renewable Energy, indicating growing researcher interest in the role of sustainable development, eco-friendly innovation, green financing instruments, and the development of renewable energy in supporting the transition toward a more sustainable economic system.

Table 5. 15 Most Used Keywords

Number	Keyword	Occurances	Total Link Strength
1	Green Finance	976	1695
2	Sustainable Development	118	264
3	Green Innovation	113	239
4	Green Bonds	110	217
5	Renewable Energy	80	216
6	China	93	205
7	Sustainable Finance	67	198
8	Sustainability	76	196
9	Fintech	64	157
10	Climate Change	43	138
11	Environmental Sustainability	46	132
12	Natural Resources	40	122
13	ESG	55	119
14	Economic Growth	41	108
15	Climate Finance	34	106

Sources: Scopus, 2026.

3.5. Co-Authorship Analysis

Figure 8 presents a visualization of the patterns of collaboration among researchers contributing to green finance publications. The figure shows seven color-coded clusters; the blue cluster is dominated by research conducted by researchers from various countries in Asia and the Middle East, such as Taghizadeh-hesary, Farhad; Mohsin, Muhammad; and Rasoulinezhad, Ehsan. This cluster has extensive collaborative ties with the other three clusters, indicating cross-group research collaboration that has the potential to broaden the scope of green finance studies from various perspectives. The green cluster consists of Umar, Muhammad, and Wang, Kai-Hua, and is connected to the orange cluster, indicating that the clusters contribute to one another in developing research topics. The yellow cluster includes authors such as Wang, Jianda, Dong, Kangyin, and Zhao, Jun, who are connected to the purple cluster, indicating a closeness in research themes or joint publication activities among groups of authors.

The purple cluster is relatively small, consisting of authors such as Sharif, Arshian, Nazar, and Raima, indicating a relatively narrower collaborative network, though it remains connected to the other two clusters. The red cluster also appears quite dominant because it has more authors than the other clusters namely Abedin, Mohammad Zoynul, Zeng, Hongjun, Tiwari, Sunil, and Zhao, Xin indicating a high level of collaboration within that group. Meanwhile, the brown cluster is the one with the most limited network, consisting of only one author Song, Malin suggesting that research collaboration is

relatively limited. However, it remains connected to the red cluster, indicating that this author still contributes to the research network. The results of the collaborative network among interconnected authors indicate that research on green finance continues to evolve, and the dominant authors tend to play a role in bridging and disseminating knowledge developments in this research field.

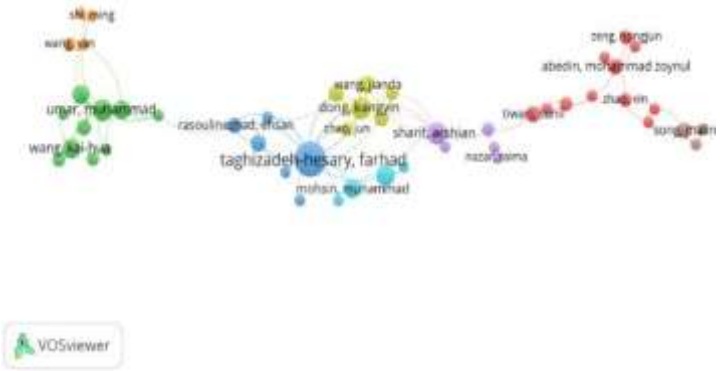

Figure 8. Co-authorship network analysis
Image Sources: VOSviewer

Figure 9 shows the results of a co-authorship density visualization that illustrates the density of the collaboration network among authors in the research. This visualization is used to assess the level of connectivity between nodes or authors based on the number of connections formed. The higher the network density, the greater the intensity of interaction and collaboration among authors within a particular field of research.

In the VOSviewer visualization, density levels are indicated by different colors. Yellow indicates areas with the highest density, signifying that authors have many collaborative relationships, while green indicates moderate density. Meanwhile, blue or darker shades indicate low density, suggesting a relatively smaller number of connections between authors. The lighter the color displayed, the higher the authors' influence and connectivity within the research network.

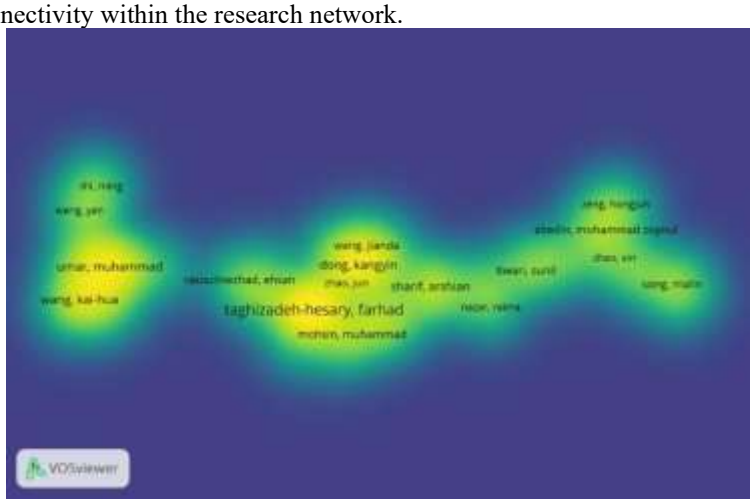

Figure 9. Co-authorship Density Visualization
Image Sources: VOSviewer, 2026.

Table 6 lists the top 15 authors in research on green finance. The top spot is held by Farhad Taghizadeh-hesary, with 25 published papers. Next, Dong, Kangyin and Umar, Muhammad are in second and third place with 10 documents each. Mirza, Nawazish and Safi, Adnan follow with 7 publications each. This indicates that the authors with the highest number of publications among the others have a consistent research focus on the topic of green finance. Additionally, high research productivity and involvement in extensive collaborative networks contribute to the number of publications produced. This indicates that the authors play a very active role in the development of the research field under study.

Table 6. 15 Most Productive Writers

Number	Author	Document	Occurances	Total Link Strength
1	Taghizadeh-hesary, farhad	25	2066	36
2	Dong, kangyin	10	468	24
3	Umar, muhammad	10	840	18

4	Wang, jianda	6	255	16
5	Liu, yang	6	258	14
6	Mirza, nawazish	7	468	12
7	Safi, adnan	7	481	11
8	Zhao, xiaomeng	5	189	11
9	Gao, jiazhan	6	73	10
10	Nepal, rabindra	4	203	10
11	Chen, ling	3	29	9
12	Fu, yating	3	29	9
13	Han, jie	3	64	9
14	He, lingyun	4	40	9
15	Hua, guihong	5	73	9

Sources: Scopus, 2026.

4. Conclusion

The findings of this study indicate that global trends in green finance research have shown significant growth over the past few decades, with major contributions coming from developed countries such as China, the United States, and the United Kingdom. Through a big data-based bibliometric approach and co-occurrence and co-authorship analysis, this study successfully identified key themes such as green finance, sustainable development, green innovation, green bonds, and renewable energy as dominant focuses in the literature. In addition, the collaborative network among authors and institutions reveals a pattern of relationships that tends to be dispersed and not centered on any particular group as a hub of scientific activity. This indicates that research interactions have involved a broader range of actors, although the level of connectivity among researchers and institutions could still be improved. Therefore, strengthening cross-national and cross-institutional collaboration remains essential to enrich global perspectives in understanding the impacts of climate change, environmental degradation, and carbon emissions on sustainable development. The findings of this study are expected to serve as a foundation for further studies exploring the direction and impact of accounting policies in the future.

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