

# Unveiling Research Trends in Sustainable Finance through AI and Machine Learning: A Bibliometric Approach

<sup>1</sup>Subhra Routray, <sup>2</sup>Anita Sahoo, <sup>3</sup>Ratan Kumar Behera

<sup>1</sup>Research Scholar, IBCS, Soa University, India

<sup>2</sup>Associate Professor, Faculty of Management Science, IBCS, Soa University, India

<sup>3</sup>Research Scholar, Dept. of Business Administration, Sambalpur University, Jyotivihar, India

E-mail- [subhraroutray05@gmail.com](mailto:subhraroutray05@gmail.com)

**Abstract:** In recent years, the intersection of artificial intelligence (AI), machine learning (ML), and sustainable finance has emerged as a ground-breaking area of research and application. This study provides a comprehensive bibliometric analysis to investigate the evolving research trends, leading authors, prestigious universities, and key thematic areas in this diverse discipline. By analyzing peer-reviewed publications from major scientific databases spanning 2016 to 2025, the study maps the intellectual structure and development of this field. Results highlight a sharp rise in scholarly output post-2018, driven by global emphasis on Environmental, Social, and Governance (ESG) goals and the growing integration of AI-powered financial decision-making systems. Thematic clustering reveals prominent research areas such as ethical AI, ESG risk assessment, green investment strategies, and AI-enabled sustainability reporting. Additionally, the study underscores the importance of collaborations among academia, financial technology (fintech) firms, and regulatory bodies in advancing sustainable finance innovation. These insights provide valuable direction for future research at the nexus of AI, ML, and sustainable development.

**Keywords:** Artificial Intelligence, Machine Learning, Sustainable Finance, ESG, Bibliometric Analysis

## 1. Introduction

Sustainable finance has emerged as a crucial instrument for integrating “environmental, social, and governance (ESG)” considerations into financial decision-making in order to promote long-term economic resilience and societal well-being. It represents a move away from traditional profit-driven investment approaches toward models that take into account climate dangers, social justice, and business ethics. This model promotes the allocation of funds towards initiatives that advance sustainable development objectives (SDGs), such as clean energy, responsible consumption, and inclusive growth (Friede et al., 2021). Sustainable finance is increasingly taking center stage in policy agendas, investment strategies, and risk management frameworks across financial systems as global issues like inequality and climate change worsen. A major shift in contemporary financial practices is represented by the convergence of AI, ML and sustainable finance. Use of AI and ML has become a critical tool for optimizing sustainable investment choices, enhancing risk assessment models, and increasing financial transparency as global economies work to achieve environmental, social, and governance (ESG) targets (Dutta et al., 2021). These technologies are essential for dealing with the intricate data environments that

are typical of sustainable finance because they provide real-time insights, automated data processing, and predictive analytics (Singh et al., 2022). Academic interest in this interdisciplinary field has increased due to regulatory restrictions and the growing urgency of climate change. By using a bibliometric method, it is possible to identify important trends, significant authors, and thematic hotspots in this quickly changing field, which offers useful insights into the organization and growth of study on AI and ML in sustainable finance (de Souza et al., 2022).

This paper is organized as follows: The literature review was presented in Section 2. Section 3 discusses the parameters and analytical approach of the investigation. The analysis's findings are presented and discussed in Section 4, and Section 5 offers recommendations for applying this method to identify potential gaps in the body of existing literature and tackle the novel study topics.

## 2. Literature Review

Sustainable finance focuses on making investment decisions that prioritize “environmental, social, and governance” (ESG) considerations in order to secure the company's long-term sustainability. It highlights how crucial it is to establish policies, procedures, and standards to promote sustainability in all areas of the public and private domains. (Kour and Chauhan, 2024). Financial firms offer sustainable finance, which is a type of funding that takes sustainability considerations into account when making choices (Rosalina & Kartodiharjo, 2023). In order to foster environmentally responsible investments and a greener economy, sustainable finance is a recent innovation in the banking industry (Vennila, 2022). The incorporation of “environmental, social, and governance (ESG)” factors into financial choices is known as sustainable finance. In business and the investment community, its significance is growing (Hunt, 2022).

Sustainable finance is a new phase in the evolution of the financial system, science, and policy, not a distinct discipline (Tsonkova, 2022). Sustainable finance is the connection between finance and sustainability objectives like the UN Sustainable Development Goals, as described in Sustainable Finance Fundamentals. It includes renewable energy, green bonds, impact investing, and banking (Vargas, 2023). In contrast to the profit-oriented traditional finance, sustainable finance strikes a balance between financial objectives and environmental and social considerations. It is in line with the UN's SDGs for overall wealth (Kripa, 2024). Sustainable finance emphasizes incorporating “Environmental, Social, and Governance (ESG)” considerations into investment choices in order to foster long-term investment in sustainable economic operations. Its goal is to improve social governance, lessen environmental pressures, and support the European Union's climate goals (Baranga & Țanea, 2022). The study highlights how important technological developments—particularly fintech and artificial intelligence—are to advancing sustainable banking practices. It highlights major tendencies in research collaboration and the growing integration of these technologies into the sustainable finance environment (Judijanto et al., 2024). According to the research, there has been a notable growth in the use of AI and ML in the financial industry since 2015, with the US, China, and the UK being the main contributors (Ahemad et al., 2022). This study examines the function of AI in finance by analyzing writings from 1992 to 2021. It includes

big data analytics, classification, early warning systems, and predictive systems. Questions that remain unanswered should be the subject of future study (Bahoo et al., 2024). This article focuses on the financial industry while reviewing the literature on artificial intelligence, machine learning and deep learning in finance. With an emphasis on ESG scoring, it discovers a rise in publishing patterns. Nonetheless, there is a dearth of scholarly empirical research on these cutting-edge, automated financial technologies. According to the study, there is a need for a planned academic transformation to counter the algorithmic biases and turbulence in the financial sector (Biju et al., 2023). The paper examines the crucial role of sustainable finance in changing financial relationships. It states that sustainable finance involves incorporating “environmental, social, and governance (ESG)” values into commercial choices and investment plans (Shkodina & Zelenko, 2023). Financial tools and methods that support social responsibility and environmental sustainability are considered sustainable finance. Since 2007, it has included green, social, sustainability-related, and transition debt, totaling USD 3.9 trillion, which tackles challenges related to climate change and governance (Singhania et al., 2023). Financial methods that take “environmental, social, and governance (ESG)” factors into account are referred to as sustainable finance. It incorporates tools like green bonds, social bonds, and sustainability bonds, which are designed to encourage sustainable development and take into account the effects of climate change on financial decision-making (Canlitepe & Künç, 2024). Sustainable finance takes “environmental, social, and corporate governance (ESG)” factors into account when making financial investment decisions, which helps to ensure that economic activities are sustainable. The article emphasizes the neglected effects of cybercrime on sustainability, highlighting the need to address this problem through sustainable finance frameworks (Woller, 2023). Through ethical decision-making processes, sustainable finance includes methods for combating corruption. It can be approached either through duty-oriented ethics, which is influenced by Kant, or virtue-centered ethics, which is inspired by Aristotle. Both methods have an impact on an organization's ability to implement sustainable finance strategies (FitzGerald, 2023). Sustainable finance is not yet a stand-alone objective of financial regulation, but it has the potential to become one. Currently, it is included into financial regulation, prioritizing traditional objectives such as market integrity, stability, and consumer protection in the event of a dispute (Colaert, 2022). In making investment choices, sustainable finance takes into account “environmental, social, and governance” factors. The paper highlights the difficulties Slovakia faces in implementing these procedures, pointing out a move toward conventional market practices in business bonds but little evidence of the use of sustainable finance components (Mazur & Petrovičová, 2024). In order to direct capital toward sustainable investments and mitigate climate change, sustainable finance involves incorporating “environmental, social, and governance (ESG)” considerations into investment decision-making processes. This ultimately advances the sustainable development goals established by the European Union and the United Nations (Pyka & Nocoń, 2021). Financial activities that take into account “environmental, social, and governance (ESG)” factors in order to encourage investments that support sustainable development is termed as Sustainable finance. FinTech advancements increase access to these investments, boost transparency in ESG

reporting, and foster financial inclusion in sustainable projects (Hasan et al., 2024). In sustainable finance, AI and ML are essential, fostering creativity in fraud prevention, risk management, green investment, and financial inclusion. In addition to integrating with blockchain technologies for improved sustainability, they assist in overcoming obstacles such as regulatory compliance and service accessibility (Ramadugu et al., 2025). By improving risk management, financial advice, trading, AI and machine learning increase stakeholder participation in sustainable finance for SMEs. By facilitating improved customer assistance, income production, and service digitalization, they ultimately promote more sustainable financial practices (Geetha & Gopal Krishna, 2024). By effectively analyzing ESG data, identifying climate change and governance risks, and facilitating improved decision-making, AI and machine learning improve sustainable finance. They assist financial organizations in evaluating the consequences of their investments, which results in improved risk management and sustainable investment strategies (Vinothkumar & Lawrance, 2024). AI and machine learning advance sustainable finance by analyzing large datasets, assessing ESG considerations, forecasting sustainability risks, and pinpointing high-impact investment prospects. These technologies support ethical decision-making and aid in mitigating the dangers associated with climate change and social inequality (Bai et al., 2024). By enhancing data processing and analysis, AI and Machine Learning help sustainable finance make better investment choices that are in line with ESG standards. However, successful integration requires addressing obstacles like ethical, regulatory, and technological concerns (Oyewole et al., 2024). By facilitating data-driven decision-making, evaluating environmental risks, identifying sustainable investment opportunities, and enhancing accountability and transparency, AI and machine learning improve sustainable finance. These technologies also foster the sharing of information between stakeholders, advancing the best practices and trends in green investment (Remya & Amutha, 2024). The quantitative research approach known as bibliometric analysis is used to evaluate the academic impact, organization, and evolution of scholarly literature in a specific discipline. It entails the statistical analysis of publications, citations, authorship patterns, and coauthorship networks in order to identify research trends, significant papers, and developing topics. This method has gained popularity for mapping scientific knowledge and promoting evidence-based decision-making in research policy and academic planning (Donthu et al., 2021).

## 2.1 Objectives of the study

- i. To analyze publication trends and research productivity in the field of sustainable finance using artificial intelligence (AI) and machine learning (ML) by examining annual scientific output, key journals, and thematic publication growth between 2016 and 2025.
- ii. To identify the most influential contributors and knowledge networks, including leading authors, institutions, and countries, using bibliometric tools such as Biblioshiny and VOSviewer to understand the global research landscape.

- iii. To explore the conceptual and thematic structure of the literature by examining keyword co-occurrences and author keywords, in order to uncover emerging research themes, dominant topics, and key areas of scholarly focus in the intersection of AI, ML, and sustainable finance.

### 3. Methodology

The study measured and demonstrated the application of AI and machine learning techniques in sustainable finance using bibliometric analysis, a validated technique for the quantitative evaluation of scholarly works in specific domains. This method evaluates the traits of literature on a given topic using a variety of analytical and computational techniques, such as reviews of authors, institutions, nations or regions, and journals. It also points out research hotspots and forecasts upcoming research orientations. The bibliometric analysis described in this paper was carried out using the Biblioshiny software, which was created by Massimo Aria of the Federico II University of Naples. This Java application combines the features of the bibliometrix package with the user-friendly interface of a web application developed in the Shiny package environment. An advance search utilizing the command 'Sustainable Finance' AND 'Artificial Intelligence' AND 'Machine Learning' was used to retrieve 642 research papers from the Web of Science database in order to accomplish this. The 2016–2025 criteria and the English language were subsequently employed to narrow down the search results. Over these years, the Web of Science database included 600 scientific articles on digital marketing in the banking industry.

### 4. Result & Analysis

The analysis of bibliometric data using the keywords 'Sustainable Finance', 'Artificial Intelligence' and 'Machine Learning' is displayed in this section. This section is structured as main information of data followed by trend of publication, Leading Authors, Organizations and Countries; salient keywords and author's keywords and trend of publication related to citation.

#### 4.1 Main information about the data

Data from the Web of Science Database is a vital resource for bibliometric research. The main timeframe used in this study to reach its conclusions was between 2016 and 2025. The foundation of the whole study was the AND operator, which was used to link the essential terms 'Sustainable Finance', 'Artificial Intelligence', and 'Machine Learning'. The screening requirements were only met by articles published in English. As depicted in Figure-1, our last collection includes 640 articles. There were 5685 authors associated with works by a single author, 30 of whom were connected.



Figure-1: More Information about Data (Biblioshiny)



## 4.2 Trends of Publication

This section concentrates on the body of literature on content marketing in the banking business that has been published during the past 10 years. The topic was covered in 194 articles in 2024, when productivity increased significantly. This suggests that academics and industry specialists are more and more interested in understanding how content marketing affects the banking industry. The use of AI and machine learning in sustainable finance is receiving more scholarly attention and producing better research results, according to an analysis of the patterns displayed in Figure 2. The data trend indicates that more study has been conducted on the application of machine learning and artificial intelligence in sustainable finance throughout time.

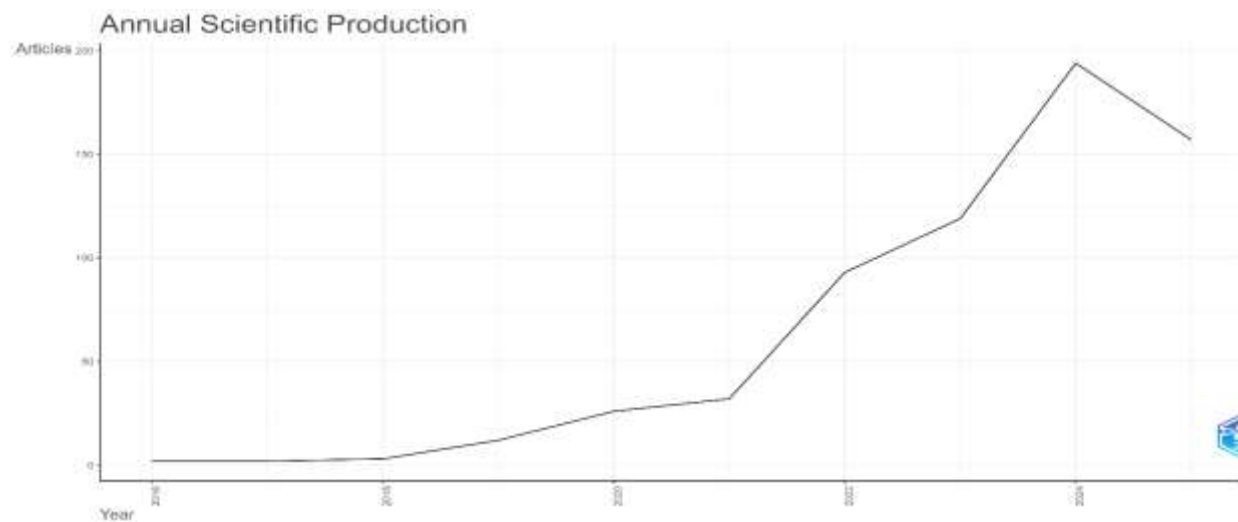


Figure-2: Annual Scientific Production (Biblioshiny)

The ‘Journal of Sustainability’ has produced the most articles in the field of applying artificial intelligence and machine learning in sustainable finance, with 78 pieces published (Table-1), highlighting the increasing interest in this topic. This area is the subject of additional major publications as well, like the Journal of Energy Economics, IEEE Access, and IEEE Transactions on Engineering Management. These papers are a great resource for academics seeking in-depth knowledge and analysis of the application of AI and ML in Sustainable Finance. The increase in the output of research into sustainable finance employing artificial intelligence (AI) and machine learning (ML).

Table-1: Top ten leading journals

Sources	Articles
Sustainability	80
Energy Economics	23
IEEE Access	14
IEEE Transactions on Engineering Management	8
Research In International Business and Finance	8

Finance Research Letters	7
Plos One	7
International Review of Economics & Finance	6
Economic Analysis and Policy	5
International Review of Financial Analysis	5

### 4.3 Leading Authors, Organizations and Countries

The objective was to use the Biblioshiny program for preliminary analysis in order to identify the most well-known authors in the field of using AI and ML in sustainable finance. Figure 3 lists the ten authors who have significantly advanced the field of sustainable finance. J. Wang is seen as the most relevant writer on the subject, with 20 publications covering it. Wang, Y. was ranked second with 18 articles.

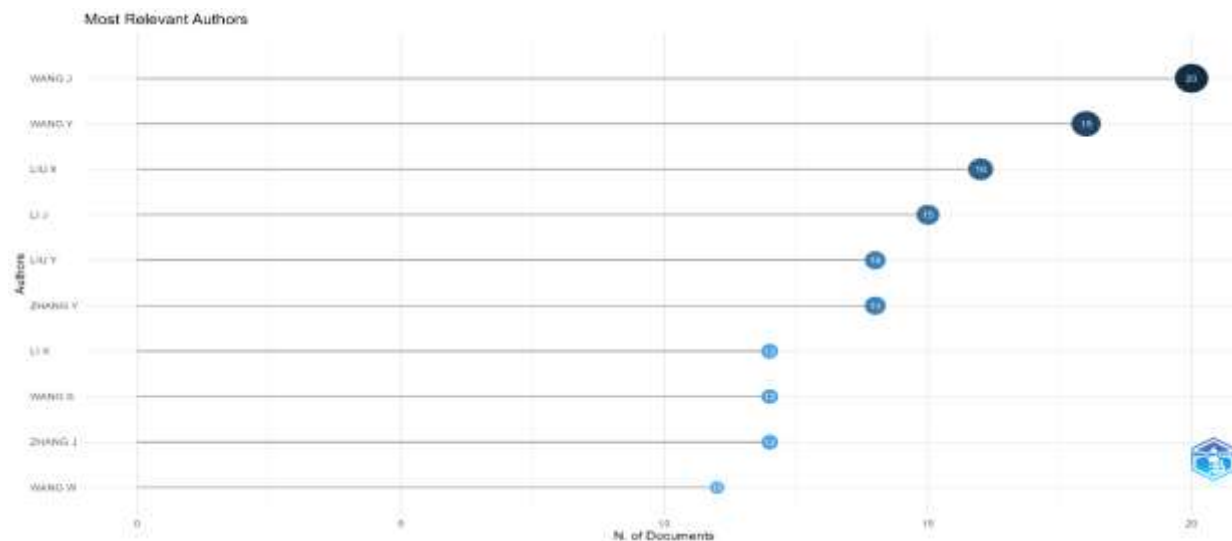


Figure-3: Most Relevant Authors (Biblioshiny)

Table 2 presents the findings of a study on the most relevant institution that promotes sustainable finance through the use of artificial intelligence and machine learning. Guizhou University Finance and Economics is ranked as one of the leading universities in this area, with 55 publications. Consistent with these findings, Table 3 shows the number of articles published by each nation on the subject, with the People's Republic of China topping the list with 369 articles. The USA, Saudi Arabia, England, and Malaysia are among the top five nations.

Table-2: Top 10 leading institutions

Affiliations	Articles
Guizhou Univ Finance and Econ	55
Southwestern Univ Finance and Econ	41
Zhejiang Univ Finance and Econ	37

Univ Washington	34
Anhui Univ Finance and Econ	32
Harvard Univ	31
Jiangxi Univ Finance and Econ	27
Univ Porto	27
Univ Sydney	27
Manipal Acad Higher Educ	26

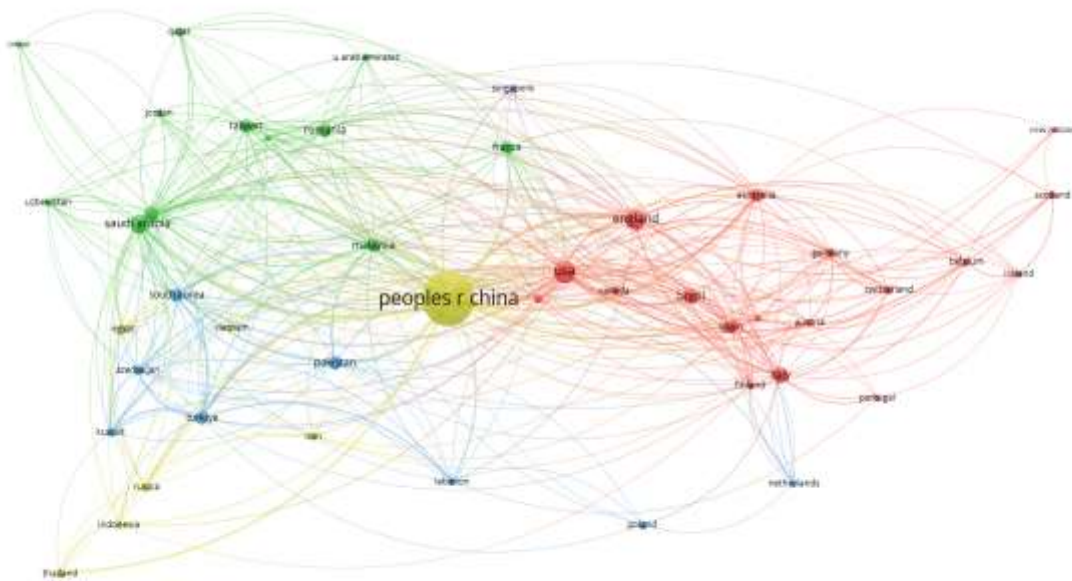


Figure-4: Co-authorship Countries (VOSviewer)

Table-3: Top 10 Authors' Countries

Country Name	No. of Documents	Citations	Total Link Strength
Peoples R China	369	4823	250
USA	65	1430	121
Saudi Arabia	45	354	99
England	55	1560	97
Malaysia	25	473	69
India	27	445	62
Australia	22	613	53
Pakistan	26	433	51
Turkiye	22	340	51



South Korea	21	200	47
-------------	----	-----	----

#### 4.4 Salient Keywords and Authors Keywords

Finding important themes that are common to the subject of applying AI and ML in sustainable finance is the aim of the secondary bibliometric research. This technique finds and displays the most common keywords or words in the literature using VOSviewer for keyword co-occurrence analysis (Figure 5).

The keyword occurrences analysis, which uses VOSviewer, involves analyzing each word from each article and grouping them into clusters based on the frequency of occurrence, the connections between the words, and the categorization of word clusters. The bibliometric map that was produced by this study is shown in Figure-7. By emphasizing the most frequently used words and themes in the Banks content marketing literature, this graphic shed light on the connections between different topics and concepts. The displayed clusters are closely related to the use of machine learning and artificial intelligence in sustainable finance. The dominant terms in the larger groups are ‘Artificial Intelligence’ and ‘Machine Learning’, which cover a wide range of linked keywords like impact, performance, and sustainability.

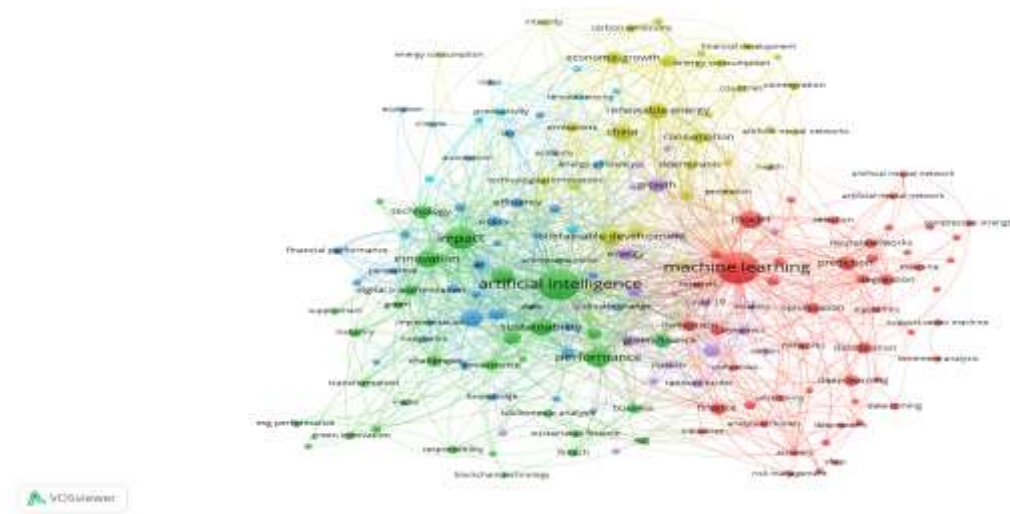


Figure-5: Co-occurrence all keywords (VOSviewer)



Figure-6: Word Cloud (Biblioshiny)

The study also examines the author keywords, which highlight the concepts that writers often include in their abstracts, which is another intriguing aspect. The 'Biblioshiny' feature of Rstudio was used for this study. A bibliometric map visualization that highlights the main keywords that writers most frequently use in their abstracts is shown in Figure-7. Keywords are used for one of two reasons: to improve the exposure of research papers in databases via their abstract content. Interestingly, the most frequently used keywords are 'impact,' 'model,' and 'performance' each with a 4% share, as well as 'Machine Learning' (9%) and 'Artificial Intelligence' (8%). This alignment of keywords emphasizes their relevance in the field of sustainable finance and demonstrates how important it is to understand the core ideas and topics that dominate academic literature.

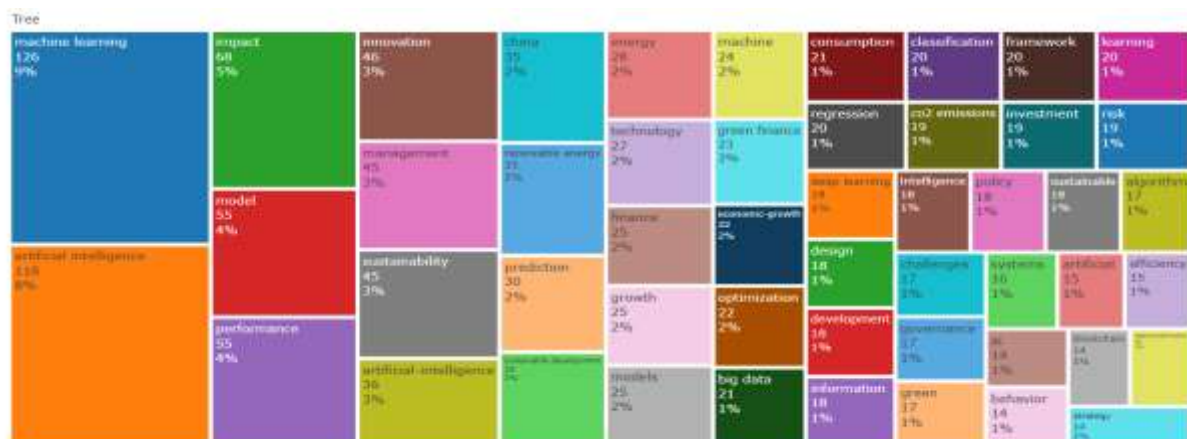


Figure-7: Tree Map (Biblioshiny)

## 5. Conclusion

A paradigm shifts in how financial institutions address social and environmental challenges is represented by the use of artificial intelligence (AI) and machine learning (ML) into sustainable finance. The bibliometric study demonstrates a notable rise in academic production, especially over the previous five years, suggesting an

increasing awareness of the importance of AI and ML as essential facilitators of sustainable investment decision-making, risk assessment, and policy formulation. Research is increasingly focused on certain geographic areas, organizations, and publications, with common themes focusing on performance, effect, and innovation. This shift represents the growing global commitment to using data-driven approaches to align finance with sustainability objectives, not just technological progress. According to the bibliometric analysis, there has been a noticeable increase in academic interest between 2016 and 2025 in the integration of Artificial Intelligence (AI) and Machine Learning (ML) into the area of Sustainable Finance. The growing significance of this interdisciplinary field is evident in the dramatic increase in publications, notably in 2024. With China establishing itself as the top nation in terms of research output, major contributors include prolific authors like Wang, J., and organizations like Guizhou University of Finance and Economics. The thematic alignment of AI, ML, performance, and sustainability is further shown by keyword mapping and co-occurrence analyses, highlighting the field's evolution and the increasing importance of intelligent technologies in promoting sustainable financial behaviors.

## Reference

- Dutta, A., Das, D., Jana, R. K., & Mahata, A. (2021). Artificial intelligence and machine learning in financial services: A bibliometric review of the literature. *Technological Forecasting and Social Change*, 172, 121009. <https://doi.org/10.1016/j.techfore.2021.121009>
- Singh, S., Rani, E., & Madaan, J. (2022). Leveraging machine learning for sustainable financial systems: A review and research agenda. *Journal of Cleaner Production*, 346, 131185. <https://doi.org/10.1016/j.jclepro.2022.131185>
- de Souza, J. C., de Oliveira, F. L., & Moralles, H. F. (2022). Applications of artificial intelligence in sustainable finance: A systematic and bibliometric review. *Technological Forecasting and Social Change*, 179, 121645. <https://doi.org/10.1016/j.techfore.2022.121645>
- Chauhan, R., & Kour, M. (2024). Sustainable Finance and ESG Investing. *Advances in Business Information Systems and Analytics Book Series*, 121–148. <https://doi.org/10.4018/979-8-3693-6447-5.ch005>
- Rosalina, L., & Kartodiharjo, H. (2023). Sustainable Finance in Financing Plantation Companies by Banking. *Jurnal Pengelolaan Sumberdaya Alam Dan Lingkungan*, 13(2), 290–304. <https://doi.org/10.29244/jpsl.13.2.290-304>
- Vennila, D. (2022). Sustainable finance: the role of indian banks in achieving the sustainable development goals. *Towards Excellence*, 797–814. <https://doi.org/10.37867/te140467>
- Hunt, K. J. (2022). Sustainable Finance. *Review of Finance*, 26(6), 1309–1313. <https://doi.org/10.1093/rof/rfac069>

- Tsonkova, V. (2022). Sustainable Finance or (R)Evolution of Finance in the Context of Sustainability. *Socialno-Ikonomički Analizi*, 13(2), 173–187. <https://doi.org/10.54664/nyua5815>
- Vargas, C. (2023). *Sustainable Finance Fundamentals*. <https://doi.org/10.4324/9781003274735>
- Kripa, E. (2024). Sustainable Finance and Management. Challenges for Achieving Sustainable Finance & Management for Businesses. *Economicus*, 23(1), 5–6. <https://doi.org/10.58944/yxou8636>
- Baranga, L. P., & Țanea, E.-I. (2022). Introducing the ESG reporting – benefits and challenges -. *Journal of Financial Studies*, 7(13), 174–181. <https://doi.org/10.55654/jfs.2022.7.13.14>
- Judijanto, L., Qosim, N., Syamsulbahri, S., Utami, E. Y., & Afandy, C. (2024). Sustainable Finance: A Bibliometric Analysis of Green Finance and its Role in Global Markets. *West Science Business and Management*, 2(04), 1206–1215. <https://doi.org/10.58812/wsbm.v2i04.1500>
- Ahmed, S., Alshater, M. M., Ammari, A. E., & Hammami, H. (2022). *Artificial intelligence and machine learning in finance: A bibliometric review*. *Research in International Business and Finance*, 61, 101646. <https://doi.org/10.1016/j.ribaf.2022.101646>
- Bahoo, S., Cucculelli, M., Goga, X., & Mondolo, J. (2024). *Artificial intelligence in Finance: A comprehensive review through bibliometric and content analysis*. *SN Business & Economics*, 4, 23. <https://doi.org/10.1007/s43546-023-00618-x>
- Biju, A. K. V., Thomas, A. S., Thasneem, J. (2023), Examining the research taxonomy of artificial intelligence, deep learning & machine learning in the financial sphere—a bibliometric analysis. *Quality & Quantity*, 1–30. <https://doi.org/10.1007/s11135-023-01673-0>
- Shkodina, I. V., & Zelenko, O. (2023). Sustainable Finance as a Factor in the Transformation of Financial Relations. *Business Inform*, 2(541), 204–209. <https://doi.org/10.32983/2222-4459-2023-2-204-209>
- Singhanian, M., Chadha, G., & Prasad, R. (2023). *Sustainable finance research: Review and agenda*. <https://doi.org/10.1002/ijfe.2854>
- Canlitepe, F., & Künc, S. (2024). *Transition From Traditional Finance to Sustainable and Ecological Finance*. <https://doi.org/10.58830/ozgur.pub565.c2524>
- Woller, H. (2023). How the Battle Against Cybercrime Strengthens Sustainable Finance. *Sustainable Finance*, 329–352. [https://doi.org/10.1007/978-3-031-28752-7\\_17](https://doi.org/10.1007/978-3-031-28752-7_17)
- FitzGerald, M. (2023). The Development of Sustainable Finance and the Axiological Strategies Against Corruption in Organizations: Enhancing Virtues or Emphasizing Moral Duties? *Sustainable Finance*, 141–161. [https://doi.org/10.1007/978-3-031-28752-7\\_8](https://doi.org/10.1007/978-3-031-28752-7_8)

- Colaert, V. (2022). The Changing Nature of Financial Regulation. Sustainable Finance as a New Policy Objective. *Social Science Research Network*. <https://doi.org/10.2139/ssrn.4087166>
- Mazur, J., & Petrovičová, S. (2024). In Search of Sustainable Finance. *Bratislava Law Review*, 8(1), 111–128. <https://doi.org/10.46282/blr.2024.8.1.737>
- Pyka, I., & Nocoń, A. (2021). Banks' Capital Requirements in Terms of Implementation of the Concept of Sustainable Finance. *Sustainability*, 13(6), 3499. <https://doi.org/10.3390/SU13063499>
- Hasan, M. H., Hossain, M. Z., Hasan, L., & Dewan, M. A. (2024). FinTech and Sustainable Finance: How is FinTech Shaping the Future of Sustainable Finance? *European Journal of Management, Economics and Business*, 1(3), 100–115. [https://doi.org/10.59324/ejmeb.2024.1\(3\).09](https://doi.org/10.59324/ejmeb.2024.1(3).09)
- Ramadugu, R., Doddipatla, L., & Stone, J. (2025). Leveraging Artificial Intelligence and Machine Learning for Sustainable Financial Technologies: Innovations, Challenges, and Future Prospects. *International Journal of Scientific Research and Management*, 10(08), 942–959. <https://doi.org/10.18535/ijstrm/v10i8.ec01>
- Geetha, N., & Gopal Krishna, U. M. (2024). The Role of Artificial Intelligence and Machine Learning in Enhancing Stakeholder Engagement for Sustainable Finance in the SME Sector. *Advances in Business Strategy and Competitive Advantage Book Series*, 331–346. <https://doi.org/10.4018/979-8-3693-7362-0.ch013>
- Vinothkumar, B., & Lawrance, R. (2024). *Ai and sustainable finance* (pp. 80–90). <https://doi.org/10.58532/v3bdai2p2ch2>
- Bai, T., Jeena, R., & Shanavas, A. (2024). Sustainable finance and use of artificial intelligence in investment decision making. *International Journal of Advanced Research*, 12(09), 1212–1218. <https://doi.org/10.21474/ijar01/19554>
- Oyewole, A. T., Adeoye, O. B., Addy, W. A., Okoye, C. C., Ofodile, O. C., & Ugochukwu, C. E. (2024). Promoting sustainability in finance with AI: A review of current practices and future potential. *World Journal Of Advanced Research and Reviews*. <https://doi.org/10.30574/wjarr.2024.21.3.0691>
- Remya, C. and Amutha, K. (2024) Harnessing Artificial Intelligence for Sustainable Finance: A Catalyst for Green Investment. *Recent trends in Management and Commerce*, 2, 5(2), 51–54. <https://doi.org/10.46632/rmc/5/2/10>
- 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>