

Mapping Blockchain Technology and CSR in the Banking Sector using VOSviewer Software: A Bibliometric Analysis

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Abstract

Technology has revolutionized almost all walks of life for individuals, corporations, governments and societies at large. New technologies like blockchain are changing the financial industry by offering better transparency, security, and efficiency. As the finance sector focuses more on responsible and sustainable practices, Corporate Social Responsibility (CSR) has become increasingly important. This study uses bibliometric analysis to explore how blockchain and CSR intersect in banking. By using the Dimensions.ai database and VOSviewer software, the research maps key academic work, identifies current trends, and highlights leading authors, journals, and institutions. The results show growing interest and collaboration among countries in this field. Blockchain can boost CSR efforts by enhancing accountability, reducing fraud, and ensuring funds are used effectively. This study highlights blockchain's growing role as a tool for corporate sustainability. The findings aim to guide academics, industry professionals, and policymakers, and stress the need for more research to fully harness blockchain's potential in promoting CSR in banking.

Keywords: *Blockchain, Corporate Social Responsibility, Bibliometric analysis, Technology*

1. Introduction

Banks serve as the key agencies contributing towards the sustainable finance and financial inclusion. Many research and business organizations are studying blockchain technology due to its capability to enhance information systems by improving transparency and shared control while ensuring integrity [18]. Blockchain technology extends organizational control systems to multiple partner domains to create modern Corporate Social Responsibility solutions. The emergent technology functions through four main traits which include data that updates only with permitted transactions, data processing dependencies between entities, distributed database networks and collaborative network protocols for system verification [18]. The technology uses its characteristics to create heightened transparency alongside better accountability in ways that fulfil CSR requirements for sustainability together with ethical management and stakeholder trust. Public interest in CSR has intensified due to advancing globalization alongside technological progress and financial turmoil throughout the 1990s and 2000s thus compelling organizations and governments to implement responsible practices [6]. The banking sector stands essential for economic stability and societal development so the implementation of CSR practices has become a pressing requirement [4]. The use of blockchain technology in banking improves transparency while combating corruption and ethical functions to fulfil stakeholder requirements for business responsibility [24]. The rising market demand for blockchain to boost CSR requires comprehensive analysis of existing research methods. The methodology of bibliometric analysis helps researchers visualize academic discoveries through published studies while tracking research direction and empty areas [10]. This study uses Dimension.ai database to analyze blockchain technology alongside CSR in banking as a bibliometric analysis with a focus on scholarly work trends and developing subtopics. This research examines how blockchain transforms CSR in banking to provide an extensive review which helps academics and practitioners and policymakers.

2. Application of Blockchain technology and CSR in banking sector

Blockchain technology effectively improves banking sector CSR initiatives through its technology which enhances transparency along with strengthening accountability while improving operational efficiency. The following section outlines crucial blockchain-based methods to strengthen banking-based CSR activities.

- **Transparency in Transactions:** Through blockchain technology businesses can establish an unchangeable decentralized transaction log which increases visibility regarding their CSR work. The open data format of blockchain makes it possible for consumers investors and regulatory bodies to validate CSR program authenticity. Banks increase donor and public trust through blockchain tracking which enables precise donation distribution [16] [21].
- **Traceability of Supply Chains:** Supply chain financing programs operated by banks benefit from blockchain technology to inspect and authenticate sustainability declarations made by their supply partners. Suppliers of blockchain technology establish a complete traceability system which enables responsible sustainability practices and meets environmental standards. IBM Food Trust stands as an example which shows through blockchain how products successfully track back from their source to reach the consumer base thereby maintaining ethical operations [7].
- **Efficient Fund Allocation:** The use of blockchain-based smart contracts helps automate the distribution process for CSR funding which maintains proper allocation of resources to intended initiatives. The automated system cuts down operational costs and makes the process more reliable while delivering higher operational speeds. Real-time tracking systems of resource allocation allow banks to demonstrate stronger CSR initiative impacts therefore boosting their accountability [15] [21].
- **Enhanced Accountability:** The blockchain system maintains an invulnerable record of every CSR initiative thereby creating simple access for verification purposes. Through this feature organizations can avoid deception by preventing them from making fraudulently advertized sustainable claims. The permanent verification system of blockchain data enables stakeholders to access unalienable information about bank CSR activities which establishes enhanced trust and accountability [15] [16].
- **Encouraging Collaboration:** Through blockchain technology different stakeholder groups such as non-governmental organizations, government agencies and other corporations can work together on their CSR initiatives through a shared system. An organizational system jointly managed by stakeholders allows secure information exchange with best practice sharing which generates innovation alongside increased social impact [21] [10].
- **Building Consumer Trust:** The embracement of blockchain by consumers for ethical business visibility leads to improved brand loyalty because it prospectively reaffirms genuine CSR engagement. Studies demonstrate that numerous customers will choose to back companies which effectively implement social impact strategies [16] [7]. Blockchain verification along with effective CSR effort communication permits banks to improve their corporate reputation while obtaining enduring trust from their customers. Through blockchain implementation into CSR programs banks improve their ability to carry out social responsibility tasks effectively. Through its capabilities to guarantee transparency while improving accountability and efficiency blockchain enables institutions to fulfill their regulatory requirements alongside ethical standards and create stronger stakeholder bonds which leads to better contributions toward societal well-being [22].

3. Past literature review of blockchain and CSR

The decentralized characteristics of blockchain functions perfectly with Corporate Social Responsibility objectives because they support ethical standards as well as sustain long-term operations and build transparent relationships with all stakeholders. The banking industry can use blockchain to fulfil rising CSR requirements from regulators and socially active consumers because

blockchain enables ethical conduct alongside faster donations and clearer visibility of CSR activities. In light of the expanding volume of research on the intersection of blockchain and Corporate Social Responsibility (CSR), a review of the literature provides valuable insights into findings as displayed in Table 1.

Table 1. Past Literature on bibliometric analysis on Blockchain and CSR

S. No.	Author	Title	Tools	Key findings
1	AlQudah, M.Z. et al. (2024)	Financial technology's role in advancing social responsibility: a bibliometric review of research progress and future opportunities	VOSviewer	According to the report, efficiency, sustainability, and responsiveness to societal demands are all improved when FinTech methods are incorporated into social responsibility plans.
2	Alshdaifat, S. M. et al. (2024)	The Role of Digital Technologies in Corporate Sustainability: A Bibliometric Review and Future Research Agenda	Biblioshiny	It may be concluded that current academic research has concentrated on issues like blockchain and environmental technology, AI and sustainable development, digitalization and sustainability, financial technology and green innovation, and energy policy and carbon emissions.
3	Samara, H. H. et al. (2024)	Artificial intelligence and machine learning in corporate governance: A bibliometric analysis	VOSviewer	The study emphasizes the need for additional research to determine the effectiveness of various AI and ML techniques. This could direct evidence-based governance procedures across different sectors and regions.
4	Tuzovic, S. (2024)	Green Crypto: A Bibliometric Analysis of the Sustainability of Cryptocurrency	Biblioshiny and VOSviewer	They wrap up by talking about upcoming studies that will examine how green cryptocurrencies are adopted at the micro, meso, and macro levels of a service ecosystem.
5	Atanasov, A. et al. (2023)	Integration of Digital Technologies in Corporate Social Responsibility (CSR)	VOSviewer	According to the findings, businesses are increasingly utilizing blockchain, artificial intelligence, the

		Activities: A Systematic Literature Review and Bibliometric Analysis		Internet of Things, and other technologies to boost the effectiveness and influence of their corporate social responsibility initiatives.
6	Su, X. et al. (2024)	A bibliometric analysis of blockchain development in industrial digital transformation using CiteSpace	CiteSpace	Adhering to the blockchain technological advancement and broadening its application breadth are essential to accelerating the digital transformation of industry.
7	Qudah, H. et al. (2024)	Unlocking the ESG value of sustainable investments in cryptocurrency: a bibliometric review of research trends	VOSviewer	With 1133 publications covering the ESG value of sustainable cryptocurrency investment between 2019 and 2022 and a total link strength of 1045, show how much attention academics paid to these themes.
8	Corsini, F. et al. (2023)	Fostering the circular economy with blockchain technology: Insights from a bibliometric approach	VOSviewer	Much research has been done on the use of blockchain technology to promote the circular economy at both the micro (firm) and meso (supply chain) levels. However, more work needs to be done on how blockchain can help create circular smart cities and measurement tools for informing stakeholders and helping to create policies.
9	Salim, M. et al. (2023)	Fusion of Blockchain and Sustainable Development Goals: A Bibliometric Analysis for Future Trends.	Biblioshiny	Exploring the systematic literature review, the study presents five observable future trends and a thorough research framework intended to increase the findings' generalizability to relevant stakeholders.
10	Boakye, E. A. (2022)	Emerging research on blockchain technology in finance; conveyed evidence of	VOS viewer and biblioshiny	Research on blockchain technology in finance has developed and is dominated by studies on venture capital, fintech, bitcoin, entrepreneurship,

		bibliometric-based evaluations.		crowdfunding/equity crowdfunding, and entrepreneurial finance.
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Source: Prepared by author

4. Objective of the study

The purpose of this research is to perform a bibliometric analysis of the blockchain Technology and CSR in the banking sector. They are mentioned as below:

- To identify the emerging trends in blockchain technology and CSR in banking sector
- To study the domains, sub-domains, theoretical and practical contributions by authors, journals towards blockchain, CSR, banking related fields
- To gain insights on the grounds of databases, geographies, keywords, relationships based on the topic of study

5. Research Gap of the study

Domain-Based: The research papers reviewed highlight several critical gaps that offer opportunities for further exploration in the fields of corporate governance, digital technologies, sustainability, and social responsibility. In particular, the sustainability of green cryptocurrencies remains underexplored, with future research needed to understand their adoption across various service ecosystems. **Interrelationship:** There is a growing need for frameworks that effectively link blockchain with Sustainable Development Goals (SDGs), and more evidence-based studies on ESG value in cryptocurrency investments. **Technology-Based:** Although blockchain technology has been extensively examined in the context of sustainability, logistics, and information technology, there is a notable paucity of research addressing its relationship with Corporate Social Responsibility (CSR) within the banking sector. A substantial body of literature has explored the application of blockchain in enhancing transparency, efficiency, and sustainability across various industries. **Sector-Based:** Despite the significant role of banking institutions in promoting ethical business practices and societal well-being, there is a conspicuous lack of empirical studies that investigate how blockchain technology might be leveraged to further CSR objectives in this sector. This gap underscores the necessity for more focused scholarly inquiry to comprehensively assess the potential contributions of blockchain to CSR initiatives in banking. The paper highlights the growing intersection of blockchain technology and CSR, emphasizing its potential to enhance transparency, accountability, and sustainability in banking operations. It also uncovers the various ways in which blockchain can improve the effectiveness of CSR initiatives, such as ensuring ethical

business practices, promoting financial inclusion, and advancing environmental sustainability.

6. Research Methodology

• Research questions:

RQ1: Which are the most renowned articles, publications, volume, researchers, organisations and countries contributions to the domain of this title?

RQ2. Which are the most acknowledged and referred research papers, journals and authors contributing to the studies of these topics?

RQ3. Among these topics, which is the most prominent topic being studied frequently and requiring better focus?

RQ4. What is the further scope of research inputs that will emerge through the review of these topics?

Bibliometric analysis is the study of correlation, volume and growth of academic and research-related documents, using basic techniques adapted from library

and information science. Identification of key research themes, active researchers and research institutions are few expected outcomes. The objective is often to quantify the impact of scholarly work. Bibliometric studies apply statistical methods to a set of documents that are related to a particular topic of interest to be researched. The process followed in the research paper is shown in Figure 1.

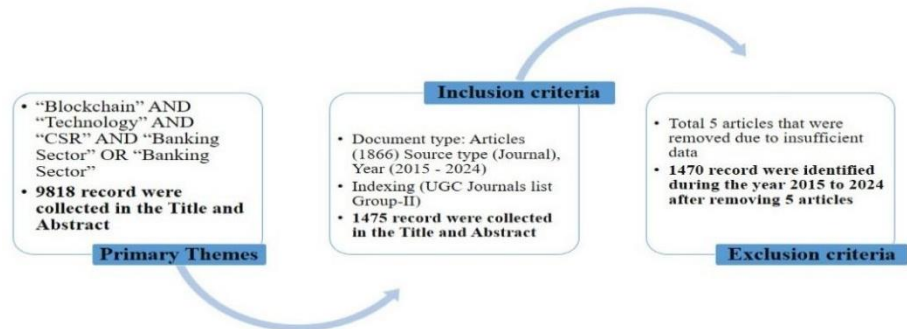


Fig. 1. Flowchart of the bibliometric analysis done in the paper

Bibliometric analysis begins with choosing the appropriate database to identify relevant literature. In this study, data extraction was done from one of the largest collection of interconnected global research data provider dimension.ai on 19th December 2024 using the base data. Next, appropriate retrieval of data depends on correctness of the search query. It minimizes irrelevant resources and literature. In the search of blockchain technology, CSR and banking, individually these keywords could result into multiple results forming distinct data sets. However, we employed our search clubbing the three terms concentrated mostly on the topic search criterion, which include title and abstract, in order to guarantee through coverage and accuracy in our search by utilizing search term such as “Block chain” AND “Technology” AND “CSR” AND “Banking Sector” OR “Banking Sector”. The first search criterion resulted into 9818 documents, which were then filtered to include only those documents which were articles and journals, written and published between 2015 -2024 and indexed under UGC List – II which reduced the valid documents to 1475. The authors then excluded 5 articles due to lack of sufficient data. Up until December 2024, a total of 1866 articles published from 2015 to 2024 were collected; based on the type of literature as shown in table 2 including contribution from as early as 2014.

Table 2. Types of document for publication which reference banking sector.

Ranking	Classification	Count	Percentage
1	Chapter	3922	39.95
2	Edited Book	2574	26.22
3	Article	1866	19.01
4	Proceeding	655	6.67
5	Monograph	610	6.21
6	Preprint	191	1.95

**7. Results and
• Statistical**

Blockchain

**Discussion
Data**

technology market

figures demonstrate intense growth with \$17.21 billion revenue projected for 2023 which will expand to \$29.35 billion within 2024 as the CAGR reaches 70.6% [19]. The blockchain industry is rapidly expanding because of cryptocurrency growth and smart contracts acceptance and enhanced corporate use of blockchain solutions [12]. The global blockchain market will expand to \$1,431.54 billion by 2030 based on an 85.9% CAGR prediction [25]. The wide-ranging industry transformation through blockchain integration has led to broader appreciation of its CSR enhancing capabilities which produces transparent accountable and ethical business conduct [21]. CSR becomes more manageable through blockchain because its decentralized system and permanent block chain records empower

better tracking of sustainability and ethical compliance in sectors including banking and healthcare along with supply chain management [15] [7]. The integration of blockchain by organizations creates substantial benefits for their CSR initiatives through its ability to provide trackable systems and combat deceptive conduct [16]. The study of blockchain integration with CSR becomes vital for companies to achieve global sustainability objectives because the banking sector maintains essential economic stability functions and social welfare delivery. The evident transformative power of blockchain in CSR needs further detailed assessment of available academic research on this topic. Research trends together with knowledge gaps and key works can be identified through the reliable bibliometric analysis technique [10]. A bibliometric study of blockchain technology and CSR in banking is carried out by this research through the Dimension.ai database. The study offers valuable guidance to researchers and officials working in blockchain and corporate social responsibility fields through its scholarly contribution analysis.

7.1 Trend Analysis

The dataset of 1470 publications from 2015-2024 was studied to understand the trend of academic research carried out on the title. The bibliometric analysis of Blockchain related publications on Corporate Social Responsibility (CSR) in the banking sector reveals a marked increase in research activity over recent years in figure 2. The data indicates a slow start, with minimal publications between 2017 and 2018, suggesting early exploratory research in this niche. However, from 2019 onward, there is a sharp and consistent rise, with the number of publications growing from 26 in 2019 to 615 till December 2024. This exponential growth underscores the increasing recognition of blockchain technology's potential to enhance transparency, accountability, and trust within CSR practices in the banking industry. Also, this can be related to regulatory frameworks around digital assets and blockchain maturing globally since 2019. The surge in publications reflects the growing academic and industry interest in integrating blockchain solutions to address CSR challenges, signaling a maturing research field ripe for deeper exploration and application.

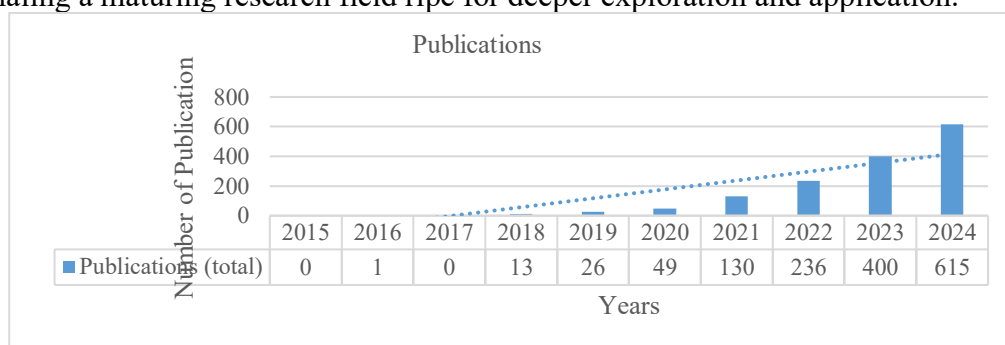


Fig. 2. Number of publications from 2015 to 2024 based on Dimension.ai database.

7.2 Co-authorship Analysis

It is a technique of science mapping analysis. In using the visualization software, a map of the co-authorship relationships of the scholars were developed. Single nodes, therefore, are about specific authors while edges are journal articles in which the authors published together. They are normally annotated in a manner that has them point to distinct clusters or groups of cooperative relations [22]. Each unit is utilized in co-authorship within VOSviewer:

a) Author: When dropping the documents where there are maximum 25 number of authors per document, the analysis shows that there are 4404 authors. Of these, 422 meets minimum threshold of 2 for documents and citation by author. Therefore 97 of the 422 author represent the largest set of connected item as shown in figure 3 below.

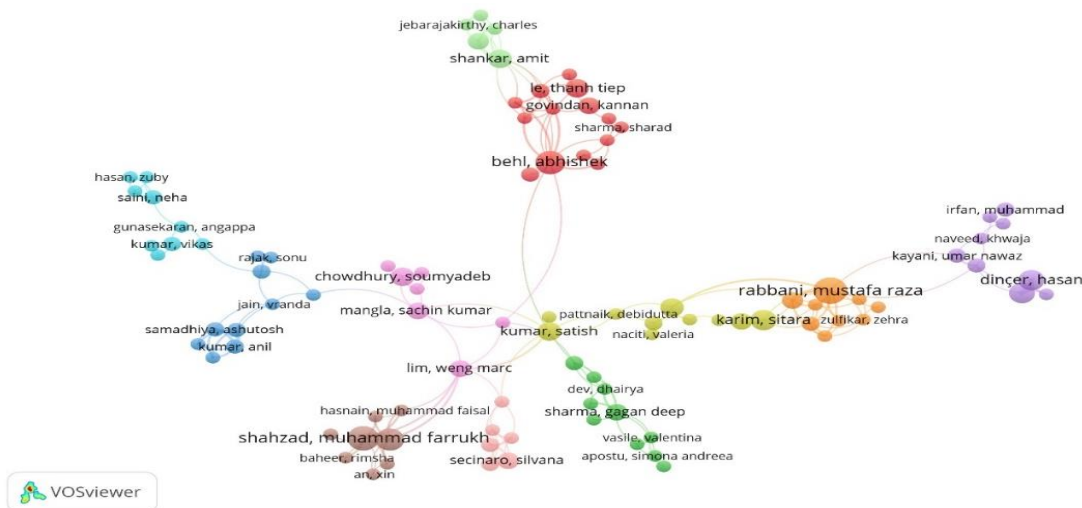


Fig. 3. Map on Co-authorship with network visualization mode.

Fig.3 comprises of multiple clustered network chart, depicting collaborative research between authors. The central node cluster of authors Abhishek and Behl exhibits higher research collaborations with co-authors like Sharma, Sharad, Kannan, among others. Bigger nodes for authors Muhammad Farukh, Mustafa Raza, Abhishek Behl indicate higher publications count. Variant color clusters in the frame indicate multiple subtopics coverage or representation of different groups or organizations. The presence of bridges, thicker shorter lines within the Abhishek Behl cluster again indicates stronger research collaborations. In terms of author groups, organisations, we can see stronger ties due to proximity between the connectors Abhishek and Behl with Amit and Shankar clusters.

The table 3 below presents an analysis of the leading authors in organizational research, ranked by their publication output and citation performance. The analysis considers factors such as the total number of publications, overall citation count, average citations per article, and institutional and geographical affiliations.

Table 3. Top 10 active author with their institution contributed to publication and citation related to Blockchain technology and CSR in banking sector

Ran k	Author	Publi cation	Citatio n	Affiliation	Country	Average Citation per article
1	Mustafa Raza Rabbani	11	276	University of Bahrain	Bahrain	25.09
2	Muhammad Farrukh Shahzad	9	121	Beijing University of Technology	China	13.44
3	Yogesh Kumar Dwivedi	8	540	Swansea University	United Kingdom	67.50
4	Abhishek Behl	8	201	Management Development Institute	India	25.13

5	Shuo Xu	7	116	Beijing University of Technology	China	16.57
6	Chun-Ping Chang	7	181	Shih Chien University	Taiwan	25.86
7	Serhat Yüksel	6	130	Istanbul Medipol University	Turkey	21.67
8	Hasan Dinçer	6	130	Istanbul Medipol University	Turkey	21.67
9	Francesco Cappa	6	363	Università Campus Bio-Medico	Italy	60.50
10	Mohamed Mahjoub M Dhiyf	6	177	Monash University Malaysia	Malaysia	29.50

In terms of publication density, Mustafa Raza Rabbani (11) and Muhammad Farrukh Shahzad (9) emerge as the top authors with notable average citation per article of 25.09 and 13.44 respectively. However highest citation impact of 540 from just 8 publications averaging to the highest 67.50 citations per article by Yogesh Kumar Dwivedi indicates strong scholarly significance followed by Francesco Cappa's 6 publications with 363 citations and an remarkable average citation of 60.50. Geographically, the contribution of 8 countries implies global significance and engagements in this research domain with multiple authors from Beijing University of Technology (China) and Istanbul Medipol University (Turkey) in the top 10.

b) Organizations (Affiliations): Besides authors, it is also possible to have a look at organizations or affiliations that a writer belongs to within VOSviewer. When ignoring documents, given the maximum number of the organizations allowed in a document is of 30, 1923 organizations are identified in this analysis. Out of them 664 organizations who have at least two papers and an organisation citation satisfy all the requirements. Figure 4 also shows that 609 of the 664 organizations have the largest number of related things.

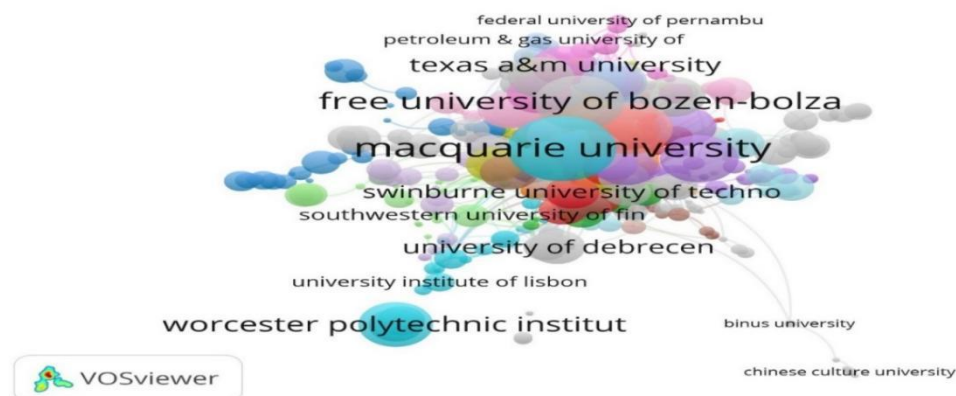


Fig. 4. Map on organization with network visualization mode.

From the bibliometric analysis it can be observed that research activities and outputs of different universities have been assessed in terms of publications, citations and impacts. Macquarie University and the Free University of Bozen-Bolzano being the

central nodes are the important network hubs with greater collaboration with peripheral nodes. Although Worcester Polytechnic Institute published fewer articles, it has extremely high research impact, and the University of the West of England and Manchester Metropolitan have significantly high citation ratios. Macquarie University and the Free University of Bozen-Bolzano has the general research impact ratio of quality and quantity. However, Symbiosis International University and ‘O.P. Jindal Global University’ two universities with higher publication output present moderate citation average of publication which proves the school’s various strategies in the process of academic contributions (Table 4).

Table 4. Performance Metrics of Universities with Publications, Citations, and Average Citations

Rank	Organization	Publication	Citations	Average Citation per article
1	Macquarie University	15	1293	86.20
2	Free University of Bozen Bolzano	8	882	110.25
3	Symbiosis International University	17	829	48.76
4	University of the West of England	6	680	113.33
5	Worcester Polytechnic Institute	3	616	205.33
6	Swansea University	10	560	56.00
7	O. P. Jindal Global University	16	526	32.88
8	University of Beira Interior	5	493	98.60
9	University of Bologna	5	483	96.60
10	Manchester Metropolitan University	4	482	120.50

c) Countries: Besides, VOSviewer assists in analysing the nations in co-authorship networks of this research; using resources, which excluded the articles containing a maximum of 25 nations, 96 nations are identified. As shown in figure 5, a total of 77 organizations meet the set requirements that include minimum of 2 papers and country citations.

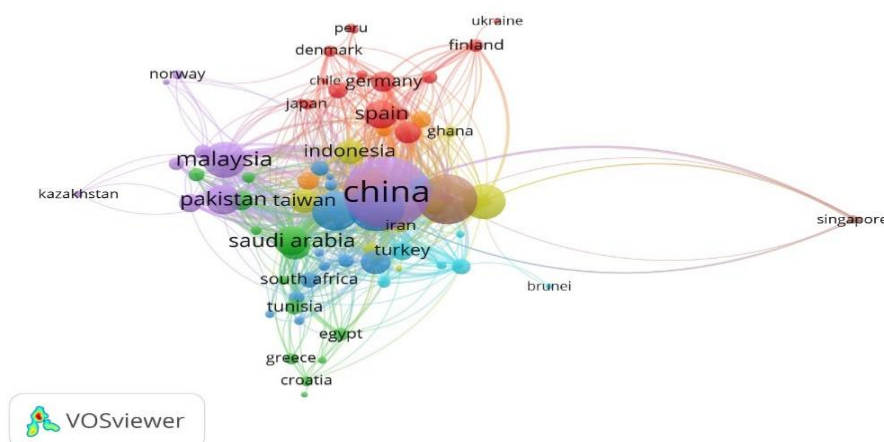


Fig. 5. Map on country with network visualization mode.

It focuses its findings on evaluating the research activities of different countries in terms of publication and citation data and papers per country, and total citations and average citations per paper. Among them, due to its centrality and node size China contributes the largest number of publications, which is indicative of its position as a hub country in domain research. Among the countries that have high quality orientation, Australia reveals high average citation impact followed by the United States. United Kingdom and Italy, as well as the United States, are concentrating on quantity as well as quality by having higher average citation rates of their publications. China and South Korea remain the most productive nations, while Malaysian and Pakistani researchers produce an above-average number of papers with average citation rates, also noting the Spanish and French teams' exceptional ratings compared to their number of publications, stressing the global development of various research areas (shown in table 5). To sum it, we can interpret that this table indicates academically high quality orientation in western countries.

Table 5. Performance Metrics of Country with Publications, Citations, and Average Citations.

Rank	Country	Publication	Citations	Average Citation per article
1	China	411	7036	17.12
2	United Kingdom	167	4902	29.35
3	India	201	3732	18.57
4	Italy	119	3497	29.39
5	United States	100	3282	32.82
6	Australia	83	2706	32.60
7	Malaysia	104	2007	19.30
8	Spain	65	1821	28.02
9	Pakistan	71	1699	23.93
10	France	50	1165	23.30

7.3 Citation Analysis

Bibliographic software can cite documents, sources, and citations, and the specific tool, VOSviewer, can help the researcher analyze those relationships. Here's a breakdown of how each unit contributes to citation analysis in VOSviewer:

a) Documents: Since citation analysis focuses on particular works, articles, conference proceedings, books, and patents are mainly taken into consideration. Information sources seen through the lens of VOSviewer assist the scholar to determine the place of individual documents within the context of citation relations and trace development of themes and composition of research paradigms. Out of the 1,468 documents included in this analysis, 810 papers were retained in the final sample because each had at least four citations. Using data obtained from Figure 6, it can be seen that of 362 investigated documents, 810 papers show the highest amount of related items.

b) Sources: Interpreted as, for example, journals and conference proceedings in the case of sources. With the help of VOSviewer, one can easily compare citation patterns across the sources to even realize most often co cited articles and how these sources can aid a particular realm of study. This kind of analysis led to a finding of 467 sources, and only the list of 89 sources contained four documents and citations at the very least. Remarking Figure 7, 86 of the 89 sources have the largest number of related items.

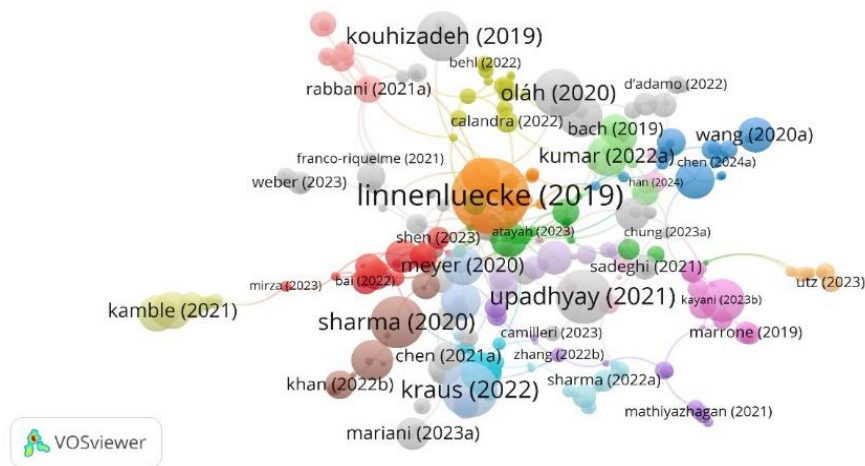


Fig. 6. Map on Citation with network visualization based on document

The above network indicates Linnenluecke (2019) to be the most cited research and its centrality indicates its importance. Various colors in the network indicate existence of multiple sub themes in the research domain

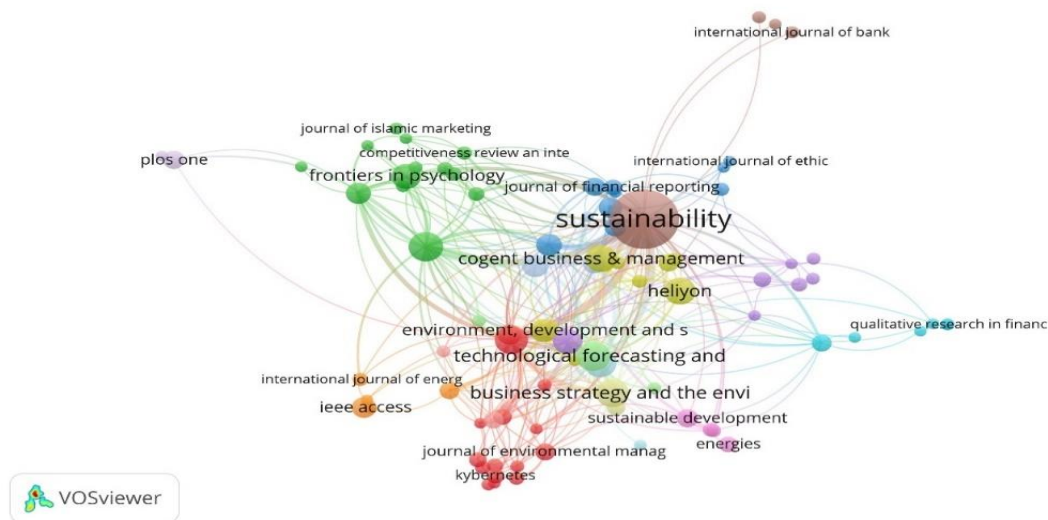


Fig. 7. Map on Citation with network visualization based on source.

Table 6. Top 10 Journal contributed to publication and citation related to Blockchain technology and CSR in banking sector

Rank	Source	Doc uments	Citat ions	Cite scor e 2024	Qu arti le	Imp act Fac tor	Publish er	SN JP	SJR	h- Inde x
1	Sustain ability	123	2747	7.2	Q1	3.3	MDPI	1.08	0.6	169
2	Techno logical Forecas ting and	31	1361	24.6	Q1	12.9	Elsevie r	2.94	3.1	179

	Social Charge									
3	Journal of Cleaner Production	27	1337	19.9	Q1	9.7	Elsevier	2.23	2.0	309
4	Journal of Business Research	22	1207	23.6	Q1	10.5	Elsevier	3.19	3.1	265
5	Australian Journal of Management	4	875	5.2	Q1	4.4	Sage	1.20	1.2	47
6	IEEE Access	15	762	8.2	Q1	3.4	IEEE	1.44	0.9	242
7	Environmental Science and Pollution Research	31	718	10.2	Q1	5.4	Springer Nature	1.14	1.0	179
8	Journal of Open Innovation: Technology, Market, and Complexity	17	689	12.7	Q1	6.82	Elsevier	1.64	0.9	50
9	International Journal of Information Management	4	595	0.5	Q4	20.1	Tamkang University	0.21	0.1	26

10	Journal of Product Innovation Management	4	532	17.3	Q1	10.1	John Wiley & Sons	3.74	3.4	171
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Source: Prepared by author

These citation links can enable the researchers to investigate important actors and cooperation patterns, and obtain knowledge about the nature of scholarly communication and make sound decisions concerning the research policy. However, to assist in analysing citation data in this study, VOSviewer has strong visualization and analytical tools (shown in table 6).

In terms of citation, Sustainability tops the list with total 123 documents and citation of 2747. Basis Citescor 2024 Technological Forecasting and Social Charge journal published by Elsevier has a good impact factor of 12.9. Multiple publications by Elsevier signify prominence to our research study.

8. Discussion

The review is useful in summarizing the present state of the field research done on the interaction between the Blockchain technology and the CSR in the banking sector. This methodological approach assumes special relevance in a study that aims to identify evolving trends and knowledge gaps that have emerged in the last decade. The analysis shows a significant increase in the CSR activity in Blockchain technology, by raising the number of publications and citations derived from the past five years. Sources of this field of study, such as distinguished writers, leading research groups, and prominent nations, are established in the report. Indeed, this information discloses extensive correlated and global research linkages. The strong methodology of the review has provided the benefit of enhancing our understanding regarding CSR activities in the banking sector as well as practical advices to the scholars, the business managers, and the legislators who are most often confronted with the challenges of material selection.

9. Conclusions

By analysing articles on blockchain technology and CSR, this bibliometric study finds trends and insights that put into perspective the development of the field. This research also shows an increased in the number of publications and citation year by year which mean the extent to which blockchain technology is gaining popularity in carrying out CSR activities in different sector. Major players and institutions together with their corresponding countries have been established in order to present the global cooperation that has propelled this field forward. It also identifies significant journals voicing the discourse and keywords in the field that indicate new directions and probable areas of needed future research. In sum, the present research establishes that blockchain technology is a persistent and dynamic component of CSR endeavours, and the findings presented here should guide additional research and innovation in this important field of inquiry. Possible improvements of the subsequent work might consist in the use of a wider variety of databases that include the qualitative evaluation of the research influence and the examination of the potential of blockchain technology in the context of CSR reporting. More research could also explore the cross-disciplinary nature of the blockchain and the incorporation of modern technologies of artificial intelligence and machine learning in the contextualization of blockchain technology for diverse and new emerging industrial configurations.

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