Blockchain Technology in the Digital Era: Global Research Trends and Financial Innovation

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ABSTRACT

Blockchain technology has introduced significant enhancements in financial services, providing distinctive methods to increase efficiency, security, and transparency in this sector. This study aims to conduct a bibliometric analysis of research on blockchain technology in financial services utilizing data from the Dimensions.ai platform. One hundred twenty-two publications were analyzed, with the most cited paper receiving 420 citations, indicating an increasing academic interest in this domain. The data were processed and analyzed using VOSviewer software, emphasizing keyword co-occurrence, citation patterns, bibliographic coupling, co-citation analysis, and collaboration networks among authors and nations. The report underscores blockchain's transformative potential in areas such as payment systems, fraud prevention, and smart contracts, while also recognizing persistent hurdles, including scalability and regulatory issues. The findings indicate a concentration of research activities in prominent nations such as the United States and China, alongside substantial contributions from prominent authors. The results illustrate the current state of research, identify critical gaps and offer valuable insights into future potential for the use of blockchain technology in financial services. This study holds important implications for researchers, policymakers, and financial service providers by providing a structured overview of this rapidly evolving field. It supports the development of more innovative, secure, and customer-centric digital finance solutions. However, the study also acknowledges certain limitations, including regional disparities in research focus and the limited extent of interdisciplinary collaboration. Future research should aim to bridge these gaps by increasing cross-sector collaboration and addressing pressing issues such as data security, privacy concerns, and the challenges posed by evolving regulatory regimes.

Keywords: Financial Services, Fin-tech, Cryptocurrency, Artificial Intelligence, Banks and Financial Institutions.

Jel Classification Codes: G20, G21, O33

1. Introduction

Blockchain technology, initially serving as the foundational infrastructure underpinning Bitcoin, first introduced by Nakamoto in 2008, has since significantly expanded beyond monetary uses. Blockchain offers a decentralized and entirely visible ledger that inhibits tampering and alterations. This illustrates the rationale behind blockchain's disruptive transformation of the financial sector (Tapscott & Tapscott, 2016). Applying blockchain technology in the financial sector profoundly impacts users and financial institutions, including banks (Rahman et al., 2024). Users can execute transactions utilizing modern electronic payment systems that serve as reliable central intermediaries and facilitate secure payments. Blockchain technology is characterized by decentralization, information immutability, and transparency,

making it suited for cross-border payment applications, hence enhancing the efficiency and security of such transactions (Deng, 2020).

Blockchain is facilitating expedited settlements, augmenting transaction security, and promoting financial inclusion in the banking industry by offering services to the unbanked population (Gupta & Gupta, 2018). Nonetheless, despite its promise, blockchain encounters considerable obstacles, such as scalability, elevated energy consumption, and legislative ambiguity (Zetzsche et al., 2018). Blockchain technology possesses the capability to optimize lending services and banking, mitigate counterparty risk, and diminish settlement durations and issuance processes. It facilitates verified paperwork and anti-money laundering (AML), Know Your Client (KYC) data, reducing operational risks and permitting real-time online authentication of financial papers (Mahajan & Nanda, 2024). In the financial services sector, blockchain technology presents a prospective avenue for more cost-effective, automated, and secure contracts. The technology's capacity to safely automate activities like transaction settlement and credit assessment offers a cost-effective, highly efficient alternative to conventional financial systems. The diverse applications of blockchain in multiple industries require that the financial services sector receive enhanced guidance and regulated integration frameworks before adopting this emerging technology (Pal et al., 2021).

The incorporation of blockchain in financial services is propelled by its capacity to resolve numerous persistent issues within the sector. Cross-border payments, which typically incur substantial fees and prolonged settlement durations, might be optimized through blockchain-enabled systems, offering nearly immediate and economical solutions (Gupta, 2017). Likewise, blockchain enhances openness and trust in trade finance by digitizing procedures and allowing safe tracking of commodities and payments (Casey & Wong, 2017). Furthermore, the inherent immutability of blockchain provides substantial security against cyber threats, which are rapidly escalating issues in the digital age. Notwithstanding these advantages, legislative ambiguities, technological scalability issues, and opposition from traditional banking systems are significant obstacles to blockchain implementation.

This research is motivated by the increasing acknowledgment that blockchain may serve as a transformative force in the financial sector. The technology's capacity to integrate efficiency, cost reduction, and transparency aligns with the global trend of digital transformation and financial inclusion. The COVID-19 epidemic intensified reliance on digital platforms and highlighted the necessity for secure and efficient financial systems. This leads to another question and consideration: What would this scenario entail? Blockchain technology has emerged as a potential solution to these issues. This research aims to examine how blockchain technology could rectify existing inefficiencies in upgrading Nepal's financial services sector.

A significant study gap persists in understanding the localized impacts of blockchain technology on financial services in Nepal. While extensive research in industrialized economies has explored blockchain's transformative role, its adoption and efficacy in developing countries like Nepal remain poorly understood. The socio-economic and regulatory landscapes differ markedly, creating barriers that influence how blockchain can be implemented. Key challenges include inadequate technical expertise, underdeveloped digital infrastructure, and varying levels of financial literacy among the population. Karki et al. (2021) highlight similar structural constraints in online shopping in Kathmandu Valley, where

limited digital awareness, mistrust in online systems, and technological access gaps hampered user participation and confidence in digital platforms. These insights reflect broader issues that also apply to blockchain adoption in Nepal, suggesting that without tailored strategies to address infrastructural deficiencies and build user trust, the potential of blockchain in advancing financial innovation may remain unrealized. This paper aims to address this gap by analyzing the particular opportunities and problems related to using blockchain inside the Nepalese financial system. This study seeks to provide a bibliometric analysis of studies regarding the influence of blockchain technology on financial services, specifically highlighting its significance for developing countries such as Nepal.

This study analyzes trends in publications, co-citations, bibliographic coupling, co-authorship networks, and keyword co-occurrences by employing data from Dimensions.ai and processing it with VOSviewer software. The report emphasizes the global advancement of blockchain adoption while addressing the constraints encountered by emerging areas such as Nepal, including insufficient infrastructure, regulatory obstacles, and limited knowledge. This bibliometric study seeks to uncover knowledge gaps, evaluate the revolutionary potential of blockchain in rectifying inefficiencies in financial institutions, and examine its implications for improving the effectiveness and inclusivity of Nepal's financial sector. This study has significant consequences for multiple stakeholders. It instructs financial institutions on how blockchain may enhance operational efficiency and reduce costs (Shrestha et al., 2022). The findings can assist policymakers in establishing regulatory frameworks that promote blockchain innovation while alleviating related concerns. The paper delineates areas where technology suppliers may adopt blockchain solutions to meet the specific needs of emerging nations like Nepal. This study ultimately enhances the scholarly discourse surrounding blockchain technology, especially in emerging economies.

This study has been precisely structured to facilitate a comprehensive analysis of the pertinent topic. The contextual framework articulates the challenge that establishes the study's context, the research aims, and the importance of the research endeavor. The literature review analyzes current theories and empirical studies on blockchain technology and its utilization in financial services. The methodology will delineate the research plan, data collection methods, and analytical procedures employed in this study. The results and discussion present findings and consequences, while the conclusion and recommendations summarize key insights and practical suggestions for stakeholders. This research has enhanced the understanding of blockchain technology in the context of financial services, particularly in Nepal. This study is grounded in the research conducted by Nakamoto (2008), Tapscott and Tapscott (2016), and Casey and Wong (2017), focusing on the integration of global knowledge with localized applications. The study aims to enhance the sustainable growth of Nepal's financial sector and facilitate its evolution into an innovative and inclusive digital economy.

2. Literature Review

The study seeks to investigate the incorporation and influence of blockchain technology in financial services, highlighting its capacity to transform conventional financial systems via decentralization, transparency, and immutable records. Blockchain is a technology that safely and transparently manages information related to transaction records among many peers. In contrast to a conventional database, transactions are not stored within a centralized organization. Blockchain technology represents a

transformative shift in global financial services by enabling participants to authorize and verify transactions without reliance on traditional intermediaries such as banks (Fairoh et al., 2024). This distributed ledger system records transactions across multiple nodes and ensures data immutability, integrity, and transparency (Nakamoto, 2008). Its decentralized structure disrupts conventional centralized financial architectures, introducing a paradigm that enhances operational efficiency and reduces systemic vulnerabilities (Tapscott & Tapscott, 2016). Javaid et al. (2022) emphasize blockchain's role in improving trust, security, and traceability in financial ecosystems. These features are especially relevant in developing markets like Nepal, where institutional limitations and transparency concerns often hamper financial service innovation. In this regard, Karki (2017), Khadka et al. (2024), and Gurung et al. (2024) provide foundational insight into Nepal's financial behavior, highlighting how latent variables such as investors' sentiment, trust, transparency, and perceived efficiency significantly affect price efficiency in the stock market. The study demonstrated the complex interplay of behavioral and structural factors influencing financial outcomes. These findings highlight the importance of blockchain in addressing such inefficiencies by encouraging real-time transparency, reducing information asymmetry, and reinforcing user confidence in financial services.

Innovation Diffusion Theory (Rogers, 1962) outlines how new technologies are assimilated into cultures, encompassing stages of awareness, evaluation, and execution. Blockchain technology in financial services undergoes multiple phases, illustrating its increasing integration into the industry. During the knowledge phase, research has highlighted the efficiency and transparency of blockchain, as evidenced by foundational studies like those of Tapscott and Tapscott (2016). Gupta et al. (2018) note that global financial institutions are progressively acknowledging the potential of blockchain, especially regarding enhancements in cross-border payments and trade finance. Nevertheless, nations like Nepal remain in the early phases of adoption owing to inadequate infrastructure, insufficient technical expertise, and regulatory ambiguity. Notwithstanding these constraints, global adoption is advancing, accompanied by various blockchain applications.

Transaction Cost Theory (Williamson, 1981) highlights how firms leverage technology to diminish transaction costs and enhance operational efficiency. Blockchain technology exemplifies this notion by significantly reducing costs in financial services, particularly in cross-border payments. Research indicates that blockchain technology can diminish these costs by as much as 40%, rendering it a cost-effective alternative for international financial institutions (World Economic Forum, 2021). Moreover, automating critical processes such as settlement and credit assessment reduces operational complexities while conserving time and financial resources. However, the widespread adoption of blockchain may also reduce the demand for human labor in routine financial operations, potentially leading to job displacement and increased pressure on employee well-being in traditional financial sectors (Bhattarai et al., 2024; Dahal & Joshi, 2024). This underscores the growing need for institutions to reinforce employee adaptability through reskilling and digital literacy initiatives.

Furthermore, as job roles shift, the gap between higher education and employability becomes more pronounced, necessitating targeted career development strategies to ensure workforce readiness in blockchain-enabled environments (Dahal et al., 2025). The uncertainty introduced by digital disruption may also erode organizational commitment if institutions fail to provide adequate employment assurances

and career progression opportunities (Ghimire et al., 2023). This challenge is further complicated by varying levels of generic skill development and labor market preparedness, which influence how different cohorts perceive their employability in technologically transforming sectors (Ghimire et al., 2024; Joshi et al., 2024). The blockchain is an open, irreversible ledger system that eliminates the necessity for intermediaries, hence decreasing administrative expenses and counterparty risk. Blockchain aligns seamlessly with Transaction Cost Theory by streamlining transactions and enhancing transparency, hence illustrating its capacity to accelerate operations and yield significant economic advantages.

The emergence and deployment of blockchain technology demonstrate its potential to impact significant revolution across various industries, particularly in financial services. Initially conceived as the foundational technology for Bitcoin by Nakamoto (2008), blockchain has evolved beyond a mere cryptocurrency into a decentralized, transparent, and tamper-resistant ledger system. Blockchain technology is utilized in financial services for cross-border payments, trade finance, anti-money laundering (AML), and know-your-customer (KYC) procedures. The World Economic Forum (2021) indicates that this might decrease cross-border payment costs by up to 40%, demonstrating the technology's capacity to enhance efficiency. Blockchain improves openness and trust in trade finance by digitizing processes and facilitating the safe tracking of products and payments (Casey & Wong, 2017). The implementation of blockchain technology in financial services tackles significant issues related to conventional banking systems, such as fraud mitigation, cost reduction in transactions, and enhancement of processing speeds (Peters and Panayi, 2016).

Drescher (2017) posits that the transparency of Blockchain and the lack of centralized authority underpin its functionality, but may also constrain its widespread acceptance. Andolfatto (2018) contends that the principal non-technical constraint of Blockchain is the absence of legal and user recognition. Blockchain technology contrasts with the traditional methodologies employed in the banking business. An advantage of blockchain technology is its boundless customer service capabilities. Participants may execute transactions at any time. A time constraint exists on client service within the traditional banking methodology (Fairoh, A., et al., 2024). Participants may only perform transactions or withdraw their funds during office hours when bank accountants are present. Nevertheless, with the development of advanced technology, digital frameworks like blockchain enable instant transaction validation, enhancing customer service responsiveness. This reduces the need for multiple procedural steps and intermediary approvals, streamlining operations and minimizing the necessity for in-person bank visits (French & Risius, 2024).

Future blockchain research in Nepal may focus on enhancing the technology's scalability for regional financial systems, integrating blockchain with traditional banking institutions, and addressing legal frameworks related to the use of cryptocurrencies and blockchain technology. Research may also examine how blockchain might enhance financial inclusion, especially in rural areas, and how it can bolster cybersecurity for Nepal's burgeoning digital economy.

3. Materials and Methodology

This research uses a bibliometric review methodology to examine the influence of blockchain technology on financial services. Bibliometric reviews are systematic methodologies for studying scientific literature

through the identification, classification, and mapping of published papers within a certain research subject. This study's approach adheres to the three phases of systematic literature reviews: planning, doing the review, and reporting the findings, as recommended by prior research (Khadka & Karki, 2024; Tranfield et al., 2003). VOSviewer is a prominent software application for bibliometric visualization. It was utilized in this work to analyze and graphically depict bibliometric data. VOSviewer, designed for the construction and visualization of bibliometric networks, enables researchers to investigate relationships within the academic literature, providing intuitive, interactive, and comprehensive insights (Khadka et al., 2024; Van Eck & Waltman, 2010). The application in this study is essential for discerning patterns, principal contributors, and topic clusters in the research about blockchain technology's influence on financial services.

This study acquired bibliometric data from dimensions.ai, a major academic research database recognized for its extensive coverage of scholarly articles, initiatives, and patents. The search utilized a Boolean query specifically designed to identify pertinent material regarding the influence of blockchain technology on financial services. The search strategy yielded 255 results without complete open access. To ensure the accessibility of the dataset, additional filters were applied as:

- Keywords: ("Blockchain Technology" AND "Financial Services" AND (Impact OR Effects OR Implications)
- Access: All open-access publications
- Document type: Peer-reviewed articles and early access publications.
- Language: English
- Time frame: 2015-2024

Upon applying this criterion, the dataset was distilled to 122 findings, which were utilized for bibliometric analysis. This research offers a concentrated and comprehensible basis for examining the influence of blockchain technology on global financial services, particularly regarding its possible ramifications for developing economies such as Nepal.

The software VOSviewer was employed to examine the data, as it is a premier visualization tool for generating and evaluating bibliometric networks. This software facilitates the graphical representation of data to elucidate essential patterns and their interrelationships. The study examined several bibliometric characteristics, including annual publication trends, keyword co-occurrence, co-citation networks, bibliographic coupling analysis, and co-authorship analysis among nations and institutions.

These analyses have enabled the identification of the developmental status and primary trends in the utilization of blockchain technology within financial services, including influential journals, highly referenced publications, leading authors, prominent institutions, and active countries contributing to the domain. The findings have identified topic areas such as decentralization, cross-border payments, transparency, and scalability, thereby offering a thorough comprehension of the research landscape and new potential within the field.

4. Data Analysis

Publications over the Years

The first article related to blockchain technology was published in 2008. It was included in the white paper titled "Bitcoin: A Peer-to-Peer Electronic Cash System" written by an individual or group under the pseudonym Satoshi Nakamoto. This white paper introduced the concept of blockchain as the underlying technology for Bitcoin, describing it as a distributed ledger system. In this study, the data were collected from the year of 2015 to 2024.
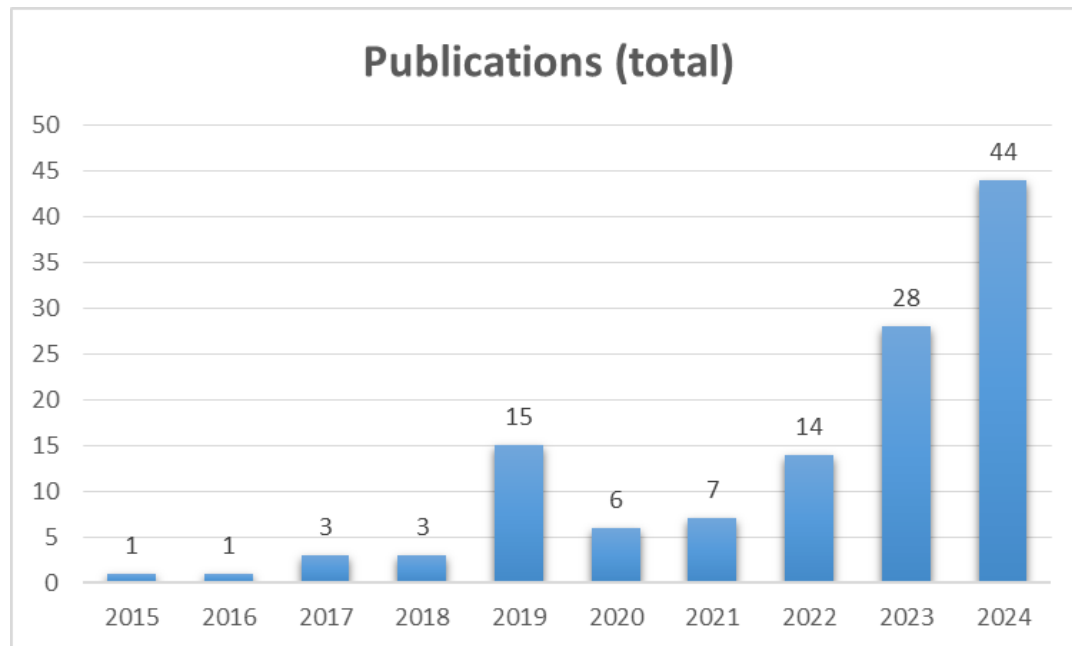

Figure 1: Publications by year (2015-2024)

This bar chart demonstrates the growth in publications on "Blockchain Technology in Financial Services" from 2015 to 2024. Initially, the number of publications was minimal with only one article each in 2015 and 2016, followed by a modest increase to three articles per year in 2017 and 2018. This slow growth indicates limited research or awareness during the early adoption phase of blockchain technology in the financial sector. However, from 2019 onward the publications show a consistent and significant rise. There are 6 articles in 2020 and 7 articles in 2021, and the growth accelerates in 2022 with 14 articles, reflecting growing interest and advancements in blockchain applications. In 2023, publications nearly doubled to 28, and by 2024 the figure leaps to 44 articles highlighting the technology's widespread adoption and importance in financial services.

Keyword Analysis

Through an analysis of the most frequently used keywords, the articles in the sample were categorized bringing attention to the prominent themes in the field. The keyword map in Figure 2 organizes these terms into six distinct clusters. The main keyword per cluster is blockchain technology (red cluster), cryptocurrency (blue cluster), and Fintech (green cluster). This map further reveals that blockchain technology, cryptocurrency, and fintech appear to dominate the focus of the research, indicating that these areas are currently the primary interest. Additionally, the integration of financial services and financial technology suggests the exploration of their practical applications and implications in the

financial sector. These insights highlight potential opportunities for new research, especially in areas like smart contracts, financial inclusion, and the role of blockchain technology in the financial industry.
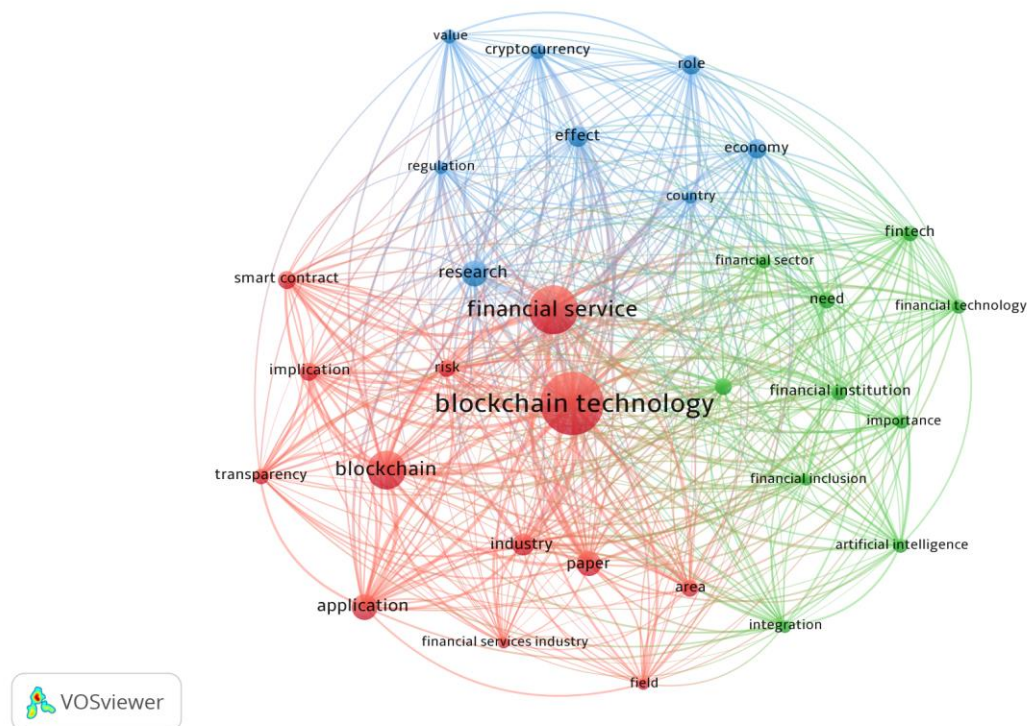

Figure 2: Keyword trends (2015–2024).

From the 122 articles, 4415 keywords are identified. The keyword "blockchain technology" has an occurrence in 113 articles, being the word that is used most often to summarize the main subject of the analyzed articles, followed by "financial services" with 86 occurrences and "blockchain" with 65 occurrences.

Collaborative Analysis of Publications

This co-authorship network visualization created using VOSviewer illustrates the collaborative relationship among authors researching "Blockchain Technology in Financial in financial services. Each cluster represents an author while the connections between them indicate co-authorship in publications. The size of the cluster reflects the number of publications and the thickness of the edges shows the frequency or strength of collaboration.
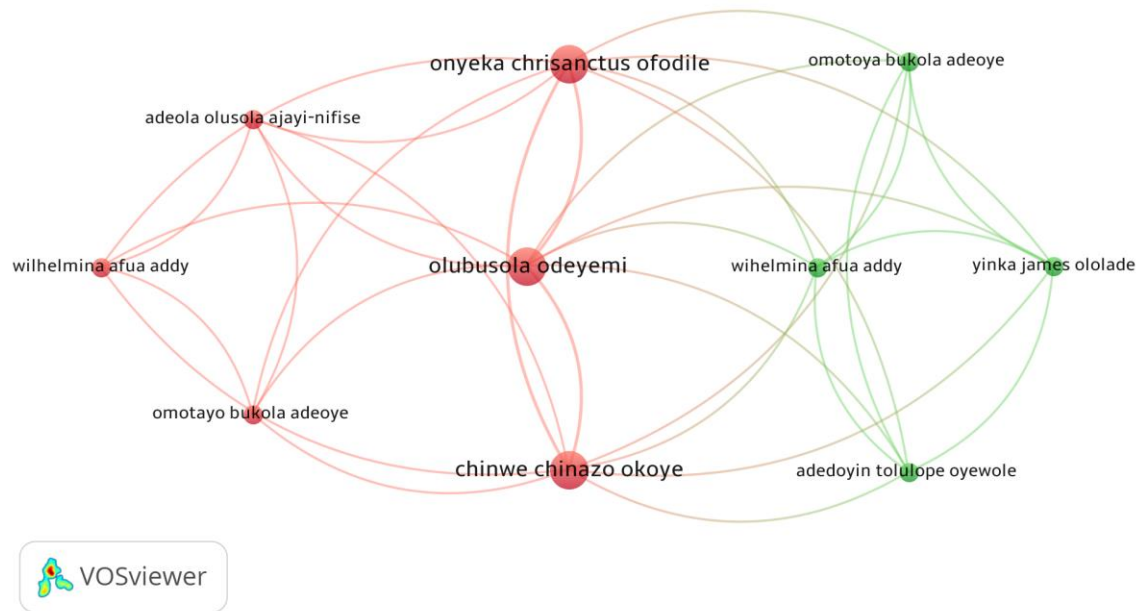
Figure 3: Co-authorship by authors

In Figure 3, we can see, that prominent authors such as Onyeka Chrisantus Ofodile, Olubusola Odeyemi, and Chinwe Chinazo Okoye appear as central figures in the network reflecting their significant contributions and frequent collaborations. The visualization also highlights distinct clusters of authors working closely together, indicating specialized focus areas or institutional affiliations. Additionally, smaller collaborative groups such as those involving Yinka James Ololade and Adedoyin Tolilope Oyewole suggest the presence of niche research or localized efforts. This network underscores the interdisciplinary and global nature of blockchain research in financial services.

Geographical Analysis by Publications

Analyzing the country of affiliation, it could be observed that this research topic is global in nature since 122 articles part of this sample are from 22 countries. It means that in each of these countries, at least one article has been published.

Table 1: Number of publications in co-authorship by countries (2015-2024)

S. N.	Co-authorship By Countries	Documents	% of 122
1	United Kingdom	6	4.91%
2	United States	5	4.09%
3	Russia	5	4.09%
4	Ukraine	5	4.09%
5	China	4	3.27%
6	Italy	4	3.27%
7	Australia	3	2.45%
8	France	3	2.45%

9	Spain	3	2.45%
10	India	3	2.45%
11	South Korea	2	1.63%
12	Kuwait	1	0.81%
13	Bangladesh	1	0.81%
14	Ghana	1	0.81%
15	Netherlands	1	0.81%
16	Canada	1	0.81%
17	Denmark	1	0.81%
18	Ireland	1	0.81%
19	Portugal	1	0.81%
20	Romania	1	0.81%
21	Switzerland	1	0.81%

Table 1 highlights the 22 countries contributing the most academic papers in the research. Among these, the United Kingdom is the country with the highest number of publications, totaling 6 articles. Likewise United States with 4 and Russia, and Ukraine with 5 articles. Together they account for 44.06% of all published articles.
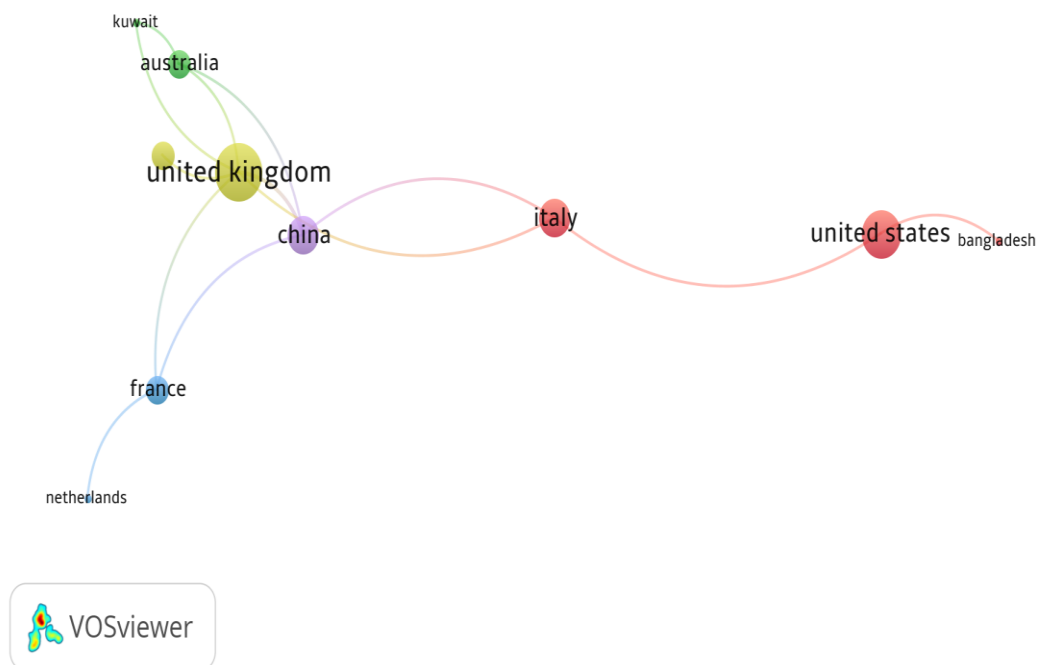
Figure 4: Co-authorship by countries

Figure 4 shows the country co-authorship map that was created from the sample of 122 articles. The United Kingdom emerges as a significant hub, indicating its prominent contribution to the research field and collaboration with other countries such as China, Australia, and Kuwait. The United States and Italy

also form another stronger cluster signifying their joint efforts and shared academic interest. Countries like France and Bangladesh though less central maintain connections with the dominant clusters which reflects their participation in global research. This visualization emphasizes the international nature of the field, where cross-border collaboration plays a crucial role in advancing knowledge and fostering innovation.

Analysis of Citation

Table 2 presents an analysis of the citations of four academic articles that focus on the impact of blockchain technology on financial services. It can observe which articles receive the highest citation in this field, with "How Blockchain can impact financial services- The overview, challenges and recommendations from expert interviewees" which has a total of 420 citations.

Table 2: Citation by articles

Title	Authors	Year	Citation	Citation Mean
How blockchain can impact financial services -The overview, challenges, and recommendations from expert interviewees	Baudier, Patricia; Chang, Victor; Zhang, Hui; Xu, Qianwen; Zhang, Jingqi; Arami, Mitra	2020	420	420.00
A review of blockchain technology applications for financial services	Haleem, Abid; Javaid, Mohd; Sing, Ravi Pratap; Suman, Rajiv; Khan, Shahbaz	2022	190	190.00
The impact of fintech and blockchain technologies on banking and financial services	Devi, N.Chitra; Kumari, Anitha	2022	54	54.00
Financial Innovation: The impact of blockchain technologies on financial intermediaries	Del Sarto, Nicola; Gai, Lorenzo; Ielasi,Federica	2022	3	3.00

Figure 5 allows the analysis of the network of citations between authors.
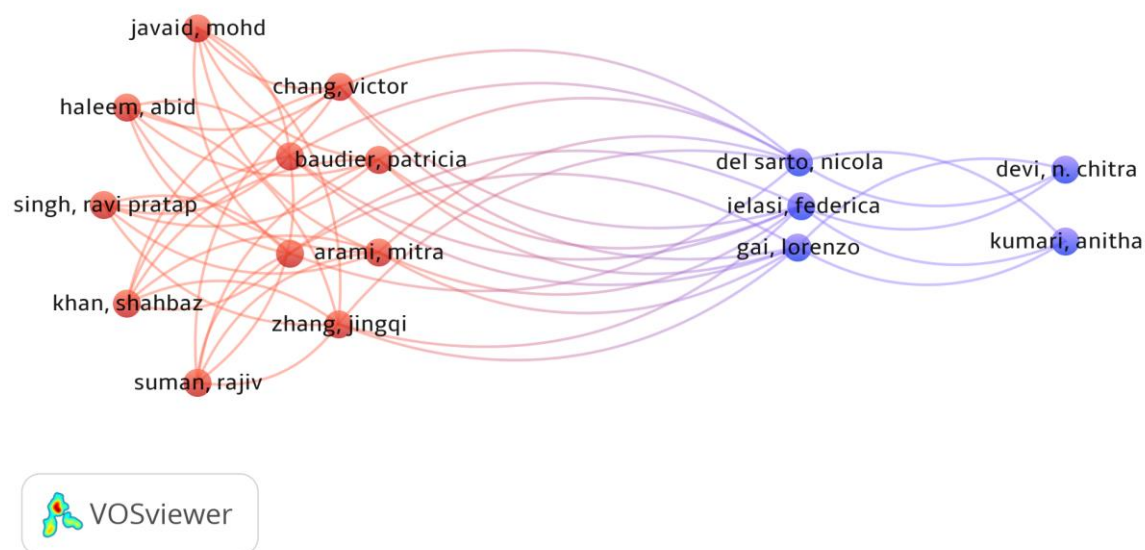
Figure 5: Author citation network

The citation network shown in the figure illustrates the relationship among authors based on their influence and contributions to the research field. The network reveals two primary clusters of interconnected authors. The first cluster includes prominent researchers such as Javaid Mohd, Haleem Abid, Sing Ravi Pratap, Khan Shahbaz, Baudier Patricia, and Chang Victor, whose works are widely cited indicating their significant influence and centrality in the field. The second cluster includes Del Sarto Nicola. Ielasi Federica, and Gai Lorenzo, formed a distinct group of citations with authors like Devi N. Chitra and Kumar Anitha linked to their work suggesting thematic specialization or collaborative research.

Analysis by Author

Bibliographic coupling is the measure of similarity between two documents based on the number of identical references cited by both (Kessler, M.M. 1963). The strength of the bibliographic coupling is determined by the number of references that overlap among the authors with a higher number indicating a stronger connection. This approach is valuable for understanding shared research interests, expertise, or thematic similarities among authors within a particular field.
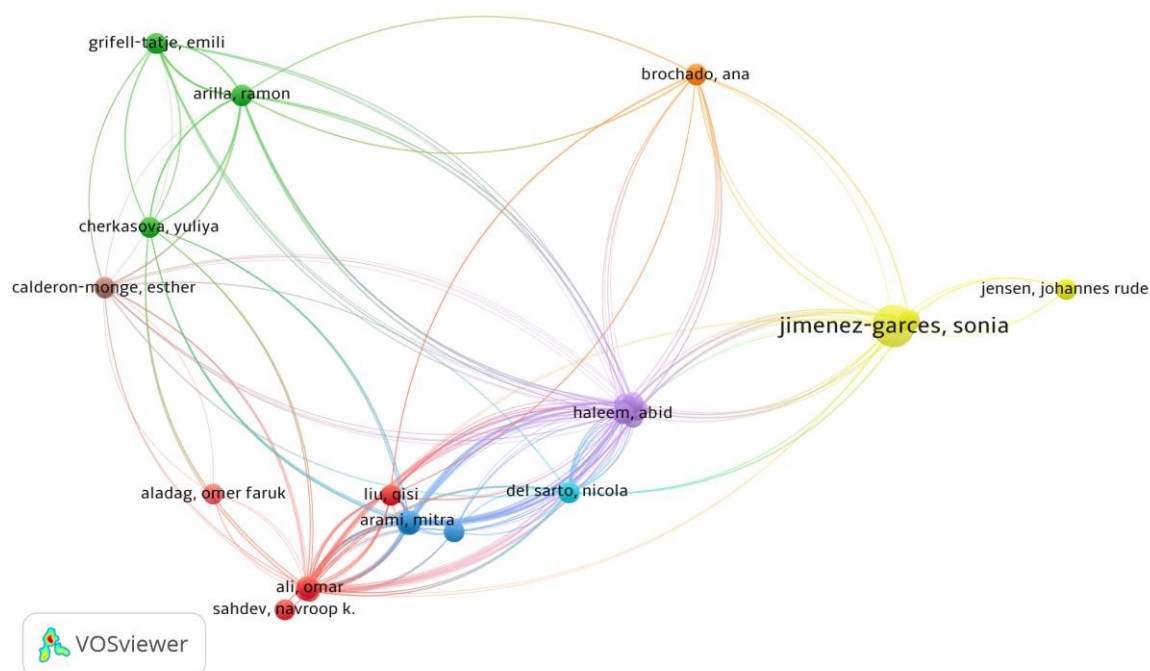
Figure 6: Bibliographic coupling of authors.

Figure 6 represents the bibliographic coupling of authors will enable us to perceive and measure the intensity of the relation between them. This visualization displays nine well-defined clusters and the line draws associated citations between the authors.

5. Discussion

This bibliometric analysis reveals the escalating interest in blockchain technology in the financial services sector, evidenced by the rising volume of publications, citations, and international research collaborations. The findings indicate that blockchain's disruptive potential in payment systems, smart contracts, and fraud prevention has garnered considerable attention in academic research. The bibliometric data indicates significant publications, authors, and organizations contributing to this domain. For example, key studies examining blockchain's effects on cost reduction, efficiency improvements, and financial inclusion are often cited, underscoring its pivotal influence on the conversation. This development corresponds with worldwide initiatives to rectify inefficiencies in conventional financial institutions and enhance access to financial services.

The findings explain how blockchain research might tackle particular national concerns within the context of Nepal. Despite the scarcity of Nepal-specific publications, overarching research patterns suggest the potential for blockchain implementation in sectors including remittances, microfinance, and rural banking. Blockchain-enabled cross-border payment systems have the potential to significantly reduce remittance costs and stimulate both domestic and international tourism—sectors that play a critical role in Nepal's economic development (Karki, 2018). Blockchain's potential for financial inclusion is especially pertinent in Nepal, where a significant segment of the population is unbanked. The bibliometric analysis additionally underscores deficiencies in current research. Notwithstanding the potential applications of

blockchain, challenges like as legislative obstacles, scalability constraints, and cybersecurity threats remain little examined in the literature, particularly concerning developing economies like Nepal. Addressing these deficiencies via focused study could yield significant insights for policymakers and practitioners.

Moreover, collaboration among institutions and researchers is a prevalent theme in the bibliometric data. Fostering collaboration among Nepali academic institutions, international academics, and financial entities can mitigate the knowledge disparity and promote the integration of blockchain technology inside Nepal's financial system. Moreover, establishing a conducive legal framework and investing in technological infrastructure are critical measures to realize blockchain's complete potential in tackling Nepal's unique financial issues.

6. Conclusion

The bibliometric analysis of blockchain technology in financial services indicates its transformational potential and the increasing number of academics and institutions globally. The study emphasizes critical subjects such as blockchain's influence on payment systems, smart contracts, fraud mitigation, and financial inclusion, which have been pivotal in both academic and practical discourse in the sector. The findings indicate substantial prospects for Nepal to utilize blockchain in tackling pressing issues within the financial system. Blockchain-enabled solutions for remittance management, rural banking, and microfinance can significantly enhance efficiency, decrease costs, and improve financial accessibility. The study reveals significant deficiencies in research, particularly on the legislative framework, scalability, and cybersecurity concerns, which must be addressed to promote blockchain adoption within Nepal's financial sector. Collaboration among researchers, policymakers, and financial institutions is crucial to encouraging innovation and overcoming implementation obstacles. Through the establishment of alliances and the creation of a conducive environment, Nepal can fully leverage blockchain technology to modernize its financial services sector and promote economic development. Whereas the global research dynamics highlight blockchain's potential, there is a distinct necessity for context-specific studies and practical applications to optimize its influence in Nepal and other developing economies. This study establishes a basis for subsequent research and policy formulation, highlighting the necessity of focused initiatives to tackle both possibilities and difficulties.

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