

## **BLOCKCHAIN AND FINANCIAL INCLUSION: A BIBLIOMETRIC AND SCIENCE MAPPING STUDY**

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**Abstract:** This study investigates the intersection of blockchain and financial inclusion through a bibliometric and science mapping analysis of 181 publications retrieved from the Web of Science Core Collection (2010–2025). Using the Bibliometrix R package (Biblioshiny interface), the study evaluates publication trends, key sources, leading authors, institutions, and countries, while also mapping the intellectual, social, and conceptual structures of the field. The results reveal that research output was minimal until 2019 but expanded rapidly from 2020 onward, peaking in 2024. Finance Research Letters and International Review of Financial Analysis emerged as the most active journals, with sYarovaya L identified as the most prolific author. Solent University, University of Southampton, and Hunan University were the leading institutions, while China dominated overall research output, followed by the United Kingdom, the United States, India, and Italy. Co-citation analysis highlighted influential works by Schuetz (2020) and Urquhart (2018), while keyword co-occurrence revealed blockchain, cryptocurrency, fintech, and financial inclusion as core themes. Thematic mapping further identified blockchain-fintech-financial inclusion as a motor theme, with CBDCs, digital identity, and DeFi emerging as future directions. Despite this progress, significant research gaps remain, particularly regarding empirical studies in developing economies, social and gender dimensions, and regulatory, ethical, and sustainability concerns. The study contributes to the literature by providing a comprehensive overview of the field's development, identifying influential contributors, and highlighting opportunities for future research and practice in advancing blockchain-enabled financial inclusion.

**Keywords:** Blockchain, Financial Inclusion, Bibliometric Analysis, Science Mapping, Fintech

### **INTRODUCTION**

Financial inclusion has emerged as a critical driver of sustainable economic growth, particularly in developing economies where access to traditional financial services remains limited. The World Bank (2018) highlights that nearly 1.7 billion adults worldwide remain unbanked, lacking access to even basic banking facilities. In this context, digital innovations have been increasingly recognized as transformative tools to bridge the financial divide (Demirgüç-Kunt et al., 2020). Among these innovations, blockchain technology has gained considerable attention for its potential to enhance transparency, reduce transaction costs, and improve trust in financial systems (Tapscott & Tapscott, 2016).

Blockchain, originally introduced as the underlying technology for Bitcoin, is now regarded as a disruptive force with far-reaching applications beyond cryptocurrencies (Nakamoto, 2008; Crosby et al., 2016). Its decentralized and immutable ledger system is particularly relevant to financial inclusion, as it can facilitate secure digital identities, micro-transactions, and efficient remittance services for underserved populations (Yermack, 2017; Chen &

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Bellavitis, 2020). This transformative potential aligns with global efforts to achieve the United Nations' Sustainable Development Goals (SDGs), particularly the goal of reducing inequalities and expanding access to financial services (United Nations, 2015).

Despite the growing academic and policy interest, existing research on blockchain and financial inclusion remains fragmented. Most studies have focused on the technical aspects of blockchain, case studies in fintech, or its regulatory challenges (Pazaitis, De Filippi, & Kostakis, 2017; Hughes, Park, Kietzmann, & Archer-Brown, 2019). While valuable, these studies do not provide a comprehensive understanding of the intellectual structure, thematic evolution, and knowledge gaps within this emerging domain. Bibliometric and science mapping approaches have proven effective in synthesizing vast academic literature and identifying research trends in various disciplines (Donthu, Kumar, Mukherjee, Pandey, & Lim, 2021), yet such an approach has not been systematically applied to blockchain and financial inclusion.

Therefore, this study aims to conduct a bibliometric and science mapping analysis of the intersection between blockchain and financial inclusion. By mapping the intellectual and conceptual structure of existing research, this study seeks to uncover the key themes, influential works, collaboration networks, and emerging trends that define this growing area of inquiry. This analysis not only contributes to the academic understanding of blockchain's role in financial inclusion but also provides practical insights for policymakers, regulators, and financial service providers seeking to harness blockchain for inclusive growth.

## **OBJECTIVES OF THE STUDY**

- To analyze the growth and trends in research publications on blockchain and financial inclusion.
- To identify the most influential sources, authors, institutions, and countries.
- To examine the intellectual, social, and conceptual structures of the field.
- To analyze the conceptual structure of the field through keyword co-occurrence and thematic mapping, and to identify key, niche, and emerging themes.
- To identify research gaps and propose directions for future studies

## **REVIEW OF LITERATURE**

Adegbite (2024) explores how blockchain can promote financial inclusion by lowering transaction costs, enabling digital identities, and supporting innovations such as remittances, microfinance, and DeFi. The paper illustrates its arguments with case studies from the Philippines, Africa, and India, while also noting challenges like regulation, infrastructure, and digital literacy. Although conceptually rich, the study remains descriptive, lacking empirical depth, which limits its ability to generalize findings. Schuetz & Venkatesh, (2020) explores how blockchain can address key barriers to financial inclusion in rural India, such as limited access, high costs, and low financial literacy. It provides a comprehensive review of existing challenges, highlights blockchain's potential to reduce costs and improve transparency, and proposes a clear research agenda focusing on antecedents, patterns, and outcomes of adoption. While largely conceptual and lacking empirical evidence, the study offers valuable insights and directions for future research, making it a strong theoretical foundation for studies on

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technology-driven financial inclusion. Ozili (2023) reviews how Central Bank Digital Currencies (CBDCs), Fintech, and cryptocurrencies influence financial inclusion and inequality, noting that while CBDCs and Fintech can expand access to affordable financial services, cryptocurrencies pose higher risks to stability and regulation. It emphasizes that digital innovations must be carefully managed through strong policy and regulatory frameworks to maximize their inclusion benefits while minimizing risks. This work provides a balanced perspective, offering both opportunities and cautions, and is valuable as a conceptual foundation for studies on digital finance and financial inclusion. Mhlanga (2023) argues that blockchain technology, when deployed with supportive policies and infrastructure, has significant potential to expand digital financial inclusion across payments, savings, credit, and insurance, and is an important tool toward achieving sustainable development goals—but only if challenges like regulatory, infrastructural and social barriers are properly addressed. Tajul Arifin, Arshad, and Muneeza (2018) argue that Shariah-compliant crowdfunding in Malaysia has strong potential for financial inclusion, and that integrating blockchain could help address platform-level issues of trust, transparency, and cost, though regulatory and infrastructural barriers need to be addressed. Galanti and Özsoy (2023) examine various blockchain-based initiatives aimed at promoting financial inclusion, finding that projects targeting low-income or migrant populations often face higher failure rates due to infrastructure, cost, and misalignment with user needs, highlighting the importance of designing blockchain solutions that address practical and contextual barriers. Ohnesorge (2018) provides an overview of blockchain technology and its potential to enhance financial inclusion through applications like remittances and land registries, while highlighting risks such as security, volatility, and energy use that require careful regulatory oversight.

## RESEARCH GAP

While numerous studies have explored the role of blockchain in promoting financial inclusion, there is currently no bibliometric or science mapping study that systematically analyzes the literature, identifies key authors, institutions, countries, research trends, and thematic clusters in this area. Most existing research is either conceptual or empirical, focusing on specific applications or case studies, but lacks a holistic overview of the knowledge structure and evolution of the field. This gap highlights the need for a bibliometric study to map the intellectual landscape, uncover research patterns, and guide future investigations in blockchain-enabled financial inclusion.

## RESEARCH METHODOLOGY

**Research Design:** This study adopts a bibliometric and science mapping approach to systematically analyze the knowledge base on Blockchain and Financial Inclusion. Bibliometric analysis quantitatively measures scientific outputs (e.g., publications, citations, authors, journals), while science mapping techniques visualize the intellectual, conceptual, and social structures of the field.

**Data Source:** The Web of Science (WoS) Core Collection database was selected due to its rigorous indexing standards, high-quality metadata, and frequent use in bibliometric research.

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**Search Strategy:** The search was conducted on 11 September 2025 using the following Boolean string:

TS = (blockchain OR "distributed ledger" OR cryptocurrency OR bitcoin OR ethereum)

AND

TS = ("financial inclusion" OR "inclusive finance" OR "financial access"

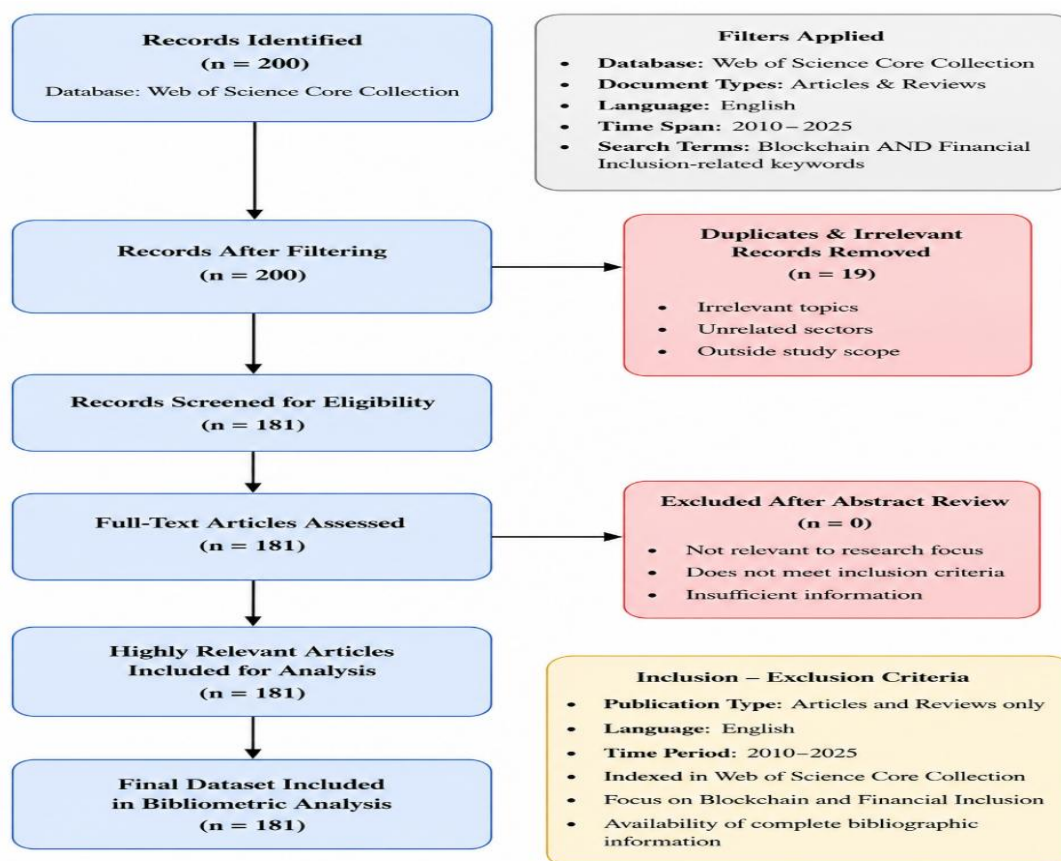
OR "digital banking" OR "mobile banking" OR microfinance OR fintech)

**Filters applied:**

- Time span: 2010–2025
  - Document types: Articles and reviews
  - Language: English
- This search returned 181 publications.

**Data Export and Cleaning:** The records were exported from WoS in .txt format, including full records and cited references and removed duplicates.

**Methodology of Bibliometric analysis (PRISMA MODEL)**



**Figure 1:PRISMA MODEL**

**Source: Created by Author**

**Analytical Tools:** The analysis was conducted using the Biblioshiny interface (R package Bibliometrix). Descriptive bibliometric analysis and science mapping analysis was conducted.

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## RESULTS

### DESCRIPTIVE BIBLIOMETRIC ANALYSIS

#### Annual Scientific Production

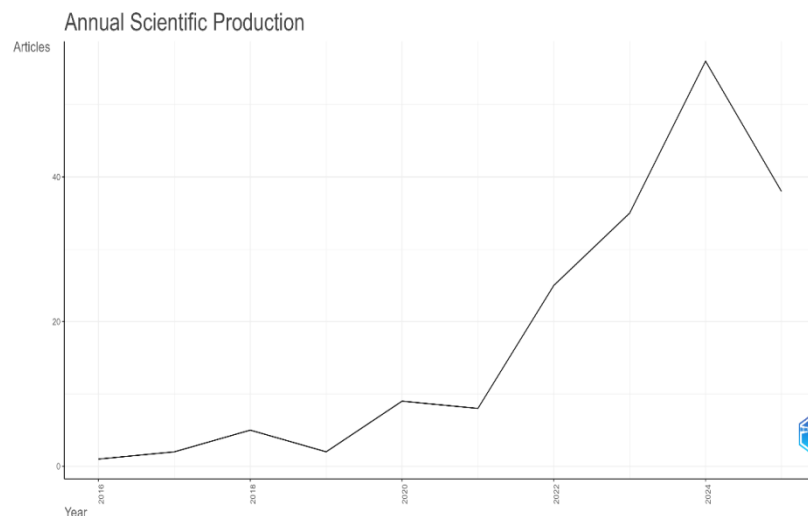


Figure 2 annual scientific production

Source: Bibliometric analysis done with the help of R Studio software

The trend in annual scientific production shows that research output remained relatively low and stable from 2015 to 2019, with only a gradual increase in the number of publications. From 2020 onward, there was a noticeable rise, which accelerated significantly after 2021, reflecting growing research interest and activity in the field. The peak was reached in 2024 with more than 50 publications, marking the highest level of productivity during the observed period. However, in 2025 there is a decline, though production still remains relatively high compared to earlier years, which may indicate either a stabilization of research efforts or incomplete data for the current year.

#### Most Relevant Journals

| Journals                                    | Articles |
|---------------------------------------------|----------|
| FINANCE RESEARCH LETTERS                    | 9        |
| INTERNATIONAL REVIEW OF FINANCIAL ANALYSIS  | 9        |
| ECONOMICS LETTERS                           | 6        |
| SUSTAINABILITY                              | 6        |
| FINANCIAL INNOVATION                        | 5        |
| GLOBAL FINANCE JOURNAL                      | 4        |
| HUMANITIES & SOCIAL SCIENCES COMMUNICATIONS | 4        |
| IEEE ACCESS                                 | 4        |
| TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE | 4        |
| HELIYON                                     | 3        |

Table 1 Most Relevant Journals

Source: Bibliometric analysis done with the help of R Studio software

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The analysis of the most relevant sources indicates that *Finance Research Letters* and *International Review of Financial Analysis* are the leading publication outlets in this domain, each contributing the highest number of documents. They are followed by *Economics Letters* and *Sustainability*, which also play an important role with a considerable number of publications. Other journals such as *Financial Innovation*, *Global Finance Journal*, and *IEEE Access* contribute moderately, while *Heliyon* represents the least but still notable contribution. Overall, the distribution suggests that while a few specialized finance journals dominate, a diverse range of interdisciplinary outlets also contribute to the body of knowledge.

## Most Popular Authors

| Authors      | Articles |
|--------------|----------|
| YAROVAYA L   | 15       |
| JALAN A      | 5        |
| MATKOVSKYY R | 5        |
| LUCEY BM     | 4        |
| NAEEM MA     | 4        |
| URQUHART A   | 4        |
| ARNER DW     | 3        |
| BUCKLEY RP   | 3        |
| HÄRDLE WK    | 3        |
| KARIM S      | 3        |

Table 3 Most Relevant Authors

Source: Bibliometric analysis done with the help of R Studio software

The analysis of the most relevant authors indicates that **Yarovaya L** is the most influential contributor, with **15 documents**, significantly surpassing other authors in the field. Following this, **Jalan A** and **Matkovskyy R** have each contributed **5 documents**, while **Lucey BM**, **Naeem MA**, and **Urquhart A** have authored **4 documents each**. In addition, **Arner DW**, **Buckley RP**, **Härdle WK**, and **Karim S** have contributed **3 documents each**. This distribution highlights **Yarovaya L's** dominant role in shaping the literature, whereas the remaining authors form a secondary cluster of moderate contributors, suggesting that while multiple scholars are engaged in this area of research, the field is largely influenced by a few leading authors.

## Most Active Institutions

| Affiliation                  | Articles |
|------------------------------|----------|
| SOLENT UNIVERSITY            | 16       |
| UNIVERSITY OF SOUTHAMPTON    | 15       |
| HUNAN UNIVERSITY             | 14       |
| ABU DHABI UNIVERSITY         | 7        |
| LEBANESE AMERICAN UNIVERSITY | 7        |
| UNIVERSITE DE RENNES         | 7        |

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| Affiliation                                 | Articles |
|---------------------------------------------|----------|
| HANGZHOU CITY UNIVERSITY                    | 6        |
| POZNAN UNIVERSITY OF ECONOMICS AND BUSINESS | 6        |
| TRINITY COLLEGE DUBLIN                      | 6        |
| UNIVERSITY OF HONG KONG                     | 6        |

Table 3 Most Active Institutions

Source: Bibliometric analysis done with the help of R Studio software

The analysis of the most relevant affiliations reveals that **Solent University** emerges as the leading contributor with **16 articles**, followed closely by the **University of Southampton** with **15 articles** and **Hunan University** with **14 articles**. These three institutions represent the dominant hubs of research activity in this field. A secondary group of contributors, including **Abu Dhabi University**, **Lebanese American University**, and **Université de Rennes**, each with **7 articles**, also demonstrate significant engagement. Additionally, **Hangzhou City University**, **Poznan University of Economics and Business**, **Trinity College Dublin**, and the **University of Hong Kong** contributed **6 articles each**, reflecting a broader international participation. Overall, this distribution indicates that while multiple institutions are actively engaged, the research landscape is largely driven by a few key universities, positioning them as the central knowledge producers in the field.

## Country contributions (Corresponding Author's Country)

| Country        | Articles | SCP | MCP |
|----------------|----------|-----|-----|
| CHINA          | 51       | 36  | 15  |
| UNITED KINGDOM | 23       | 7   | 16  |
| USA            | 12       | 9   | 3   |
| GERMANY        | 10       | 2   | 8   |
| INDIA          | 10       | 6   | 4   |
| ITALY          | 10       | 3   | 7   |
| AUSTRALIA      | 9        | 6   | 3   |
| FRANCE         | 5        | 2   | 3   |
| IRELAND        | 5        | 0   | 5   |
| MALAYSIA       | 4        | 1   | 3   |

Table 4 Country Contributions

Source: Bibliometric analysis done with the help of R Studio software

The analysis of corresponding authors' countries reveals that **China** dominates the field with over **50 publications**, primarily driven by single-country contributions, reflecting a strong domestic research base. The **United Kingdom** follows with around **25 publications**, demonstrating a balance between national output and international collaboration, while the **United States** ranks third with a slightly greater share of single-country publications, indicating more nationally focused research activity. Other significant contributors include **Germany**, **India**, and **Italy**, each producing between **15 and 20 publications**, with Germany and Italy showing higher levels of international collaboration. Countries such as **Australia**,

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France, Ireland, Malaysia, the Netherlands, and the United Arab Emirates also make notable contributions, albeit at a comparatively smaller scale. Additionally, emerging contributors from Asia and the Middle East, including Korea, Poland, Turkey, Lebanon, Pakistan, Russia, Saudi Arabia, and Singapore, participate mainly through multi-country collaborations. Overall, the distribution highlights the leading roles of China, the United Kingdom, and the United States, while also underscoring the importance of international collaboration, particularly among European and emerging economies, in advancing research in this area.

## Country Scientific Production

Country Scientific Production

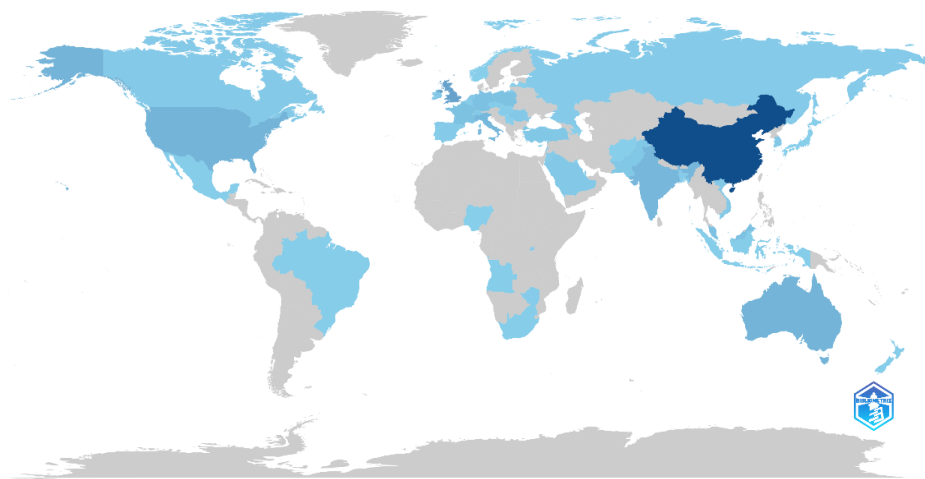


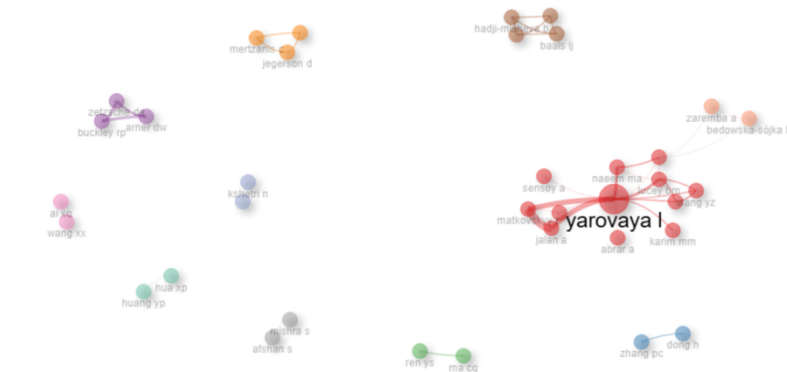
Figure 3 Country Scientific Production

Source: Bibliometric analysis done with the help of R Studio software

The distribution of publications by country demonstrates that **China** is the leading contributor with **169 publications**, significantly surpassing all other nations and highlighting its dominant position in the field. The **United Kingdom**, with **55 publications**, ranks second but contributes only about one-third of China's output, reflecting a considerable gap between the top country and the rest. **Australia** and the **United States** share the third position with **33 publications each**, followed closely by **India (29)** and **Italy (28)**, which also show substantial research activity. Meanwhile, **Germany and Malaysia** each contributed **17 publications**, and **France and Poland** recorded **16 publications each**, representing moderate but notable engagement. Overall, the results underscore China's overwhelming influence in driving research output, while also highlighting the role of the United Kingdom, the United States, Australia, India, and Italy as a strong secondary cluster of contributors. The participation of other European and Asian countries indicates that, although dominated by a few leaders, the research field maintains a diverse international presence.

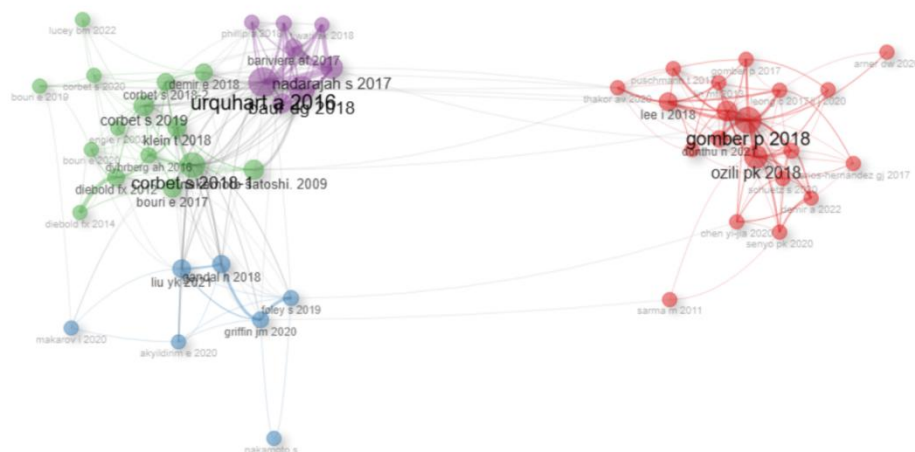
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## Co-Authorship Network



Source: Bibliometric analysis done with the help of R Studio software

## Co-Citation Network



Source: Bibliometric analysis done with the help of R Studio software

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This visualization depicts a **co-citation network of scholarly works**, where nodes represent cited references and their size reflects citation frequency. The connections indicate co-citation links, showing which works are frequently cited together. The map reveals two dominant clusters: on the left, the **green, blue, and purple clusters** centered around **Urquhart A 2018, Corbet S 2018/2019**, and related works, which focus primarily on cryptocurrency, volatility, and financial markets. On the right, the **red cluster** led by **Gomber P 2018** and **Ozili PK 2018** highlights literature on fintech, financial inclusion, and digital finance. The thickness of the links suggests strong intellectual ties within each cluster, while the lighter bridging lines between clusters (e.g., via Lee I 2018 or Puschmann T 2017) demonstrate limited but meaningful interdisciplinary connections. Overall, the field appears divided into two major thematic streams—cryptocurrency/finance and fintech/inclusion—yet with some overlapping references indicating growing cross-disciplinary integration.

## Most Influential Papers

| Document                                | Year | Local Citations | Global Citations |
|-----------------------------------------|------|-----------------|------------------|
| SCHUETZ S, 2020, INT J INFORM MANAGE    | 2020 | 8               | 225              |
| LARIOS-HERNÁNDEZ GJ, 2017, BUS HORIZONS | 2017 | 6               | 122              |
| URQUHART A, 2018, ECON LETT             | 2018 | 6               | 257              |
| LUCEY BM, 2022, FINANC RES LETT         | 2022 | 6               | 208              |
| LIU JJ, 2020, TECHNOL FORECAST SOC      | 2020 | 4               | 116              |
| ALLEN F, 2022, J INT MONEY FINANC       | 2022 | 4               | 151              |
| WANG YZ, 2022, TECHNOL FORECAST SOC     | 2022 | 4               | 106              |
| URQUHART A, 2017, ECON LETT             | 2017 | 3               | 249              |
| NELMS TC, 2018, THEOR CULT SOC          | 2018 | 3               | 100              |
| AKYILDIRIM E, 2020, FINANC RES LETT     | 2020 | 3               | 81               |

Table 5 Most Influential Papers

Source: Bibliometric analysis done with the help of R Studio software

This table summarizes the most influential documents in the dataset based on **local and global citation impact**. Among them, **Schuetz S (2020)** in *International Journal of Information Management* stands out with the highest global citations (225) and strong local recognition (8), highlighting its broad relevance in the literature. Similarly, **Urquhart A (2018)** and **Lucey BM (2022)** are highly impactful globally (257 and 208 citations, respectively), positioning them as central works in the field. On the other hand, studies such as **Larios-Hernández GJ (2017)** and **Liu JJ (2020)**, though lower in global citations compared to the leading works, show notable local citation counts, indicating their influence within this specific research domain. Overall, the citation patterns suggest a mix of widely

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acknowledged global contributions and regionally influential works that shape the intellectual structure of the field.

## Key Word Co-occurrence Network

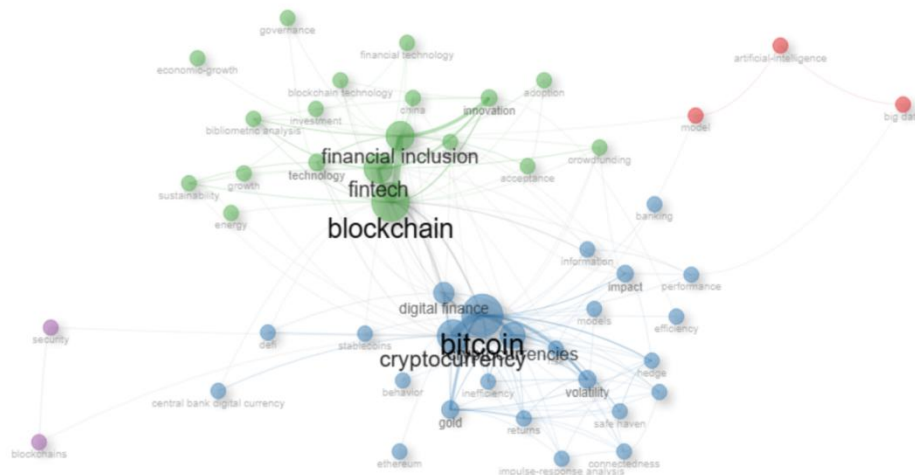


Figure 6 Keyword co-occurrence network

Source: Bibliometric analysis done with the help of R Studio software

This visualization illustrates a **keyword co-occurrence network**, where the size of the nodes reflects the frequency of keywords and the connections indicate their co-appearance in the literature. The network reveals two major thematic clusters. The **green cluster** centers on *blockchain*, *fintech*, and *financial inclusion*, highlighting discussions on technology adoption, innovation, governance, and sustainable growth. The **blue cluster** is dominated by *bitcoin* and *cryptocurrencies*, associated with themes such as volatility, safe-haven properties, inefficiency, gold, and digital finance. Additionally, smaller clusters emerge, such as the **red cluster** linking *artificial intelligence* and *big data*, and the **purple cluster** focusing on *security* and *blockchains*. The close proximity of *blockchain* to both financial inclusion and cryptocurrencies suggests that it serves as a bridging concept connecting technological innovation with financial applications. Overall, the map indicates that the field is structured around two main research streams—technological innovation in finance and cryptocurrency-focused financial studies—with emerging links to artificial intelligence and data-driven approaches.

## Keyword Frequency

| Words          | Occurrences |
|----------------|-------------|
| blockchain     | 47          |
| bitcoin        | 45          |
| cryptocurrency | 34          |
| fintech        | 30          |

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| Words               | Occurrences |
|---------------------|-------------|
| financial inclusion | 29          |
| cryptocurrencies    | 23          |
| digital finance     | 19          |
| volatility          | 14          |
| innovation          | 13          |
| gold                | 12          |

Table 6 Keyword Frequency

Source: Bibliometric analysis done with the help of R Studio software

The frequency distribution reveals that *blockchain* (47) and *bitcoin* (45) dominate the discourse, reflecting a strong emphasis on decentralized technologies. Closely related terms such as *cryptocurrency* (34), *cryptocurrencies* (23), and *fintech* (30) further highlight the centrality of digital financial innovations. The prominence of *financial inclusion* (29) and *digital finance* (19) suggests that the discussion extends beyond technological aspects to the societal implications of widening access to financial systems. Meanwhile, *volatility* (14) underscores concern over instability in digital asset markets, whereas *innovation* (13) reflects recognition of their transformative potential. The occurrence of *gold* (12) indicates its continued relevance as a benchmark or comparative asset against emerging digital currencies. Collectively, these patterns suggest a research focus that balances technological advancement, financial accessibility, and market risks within the digital finance landscape.

## Thematic Map

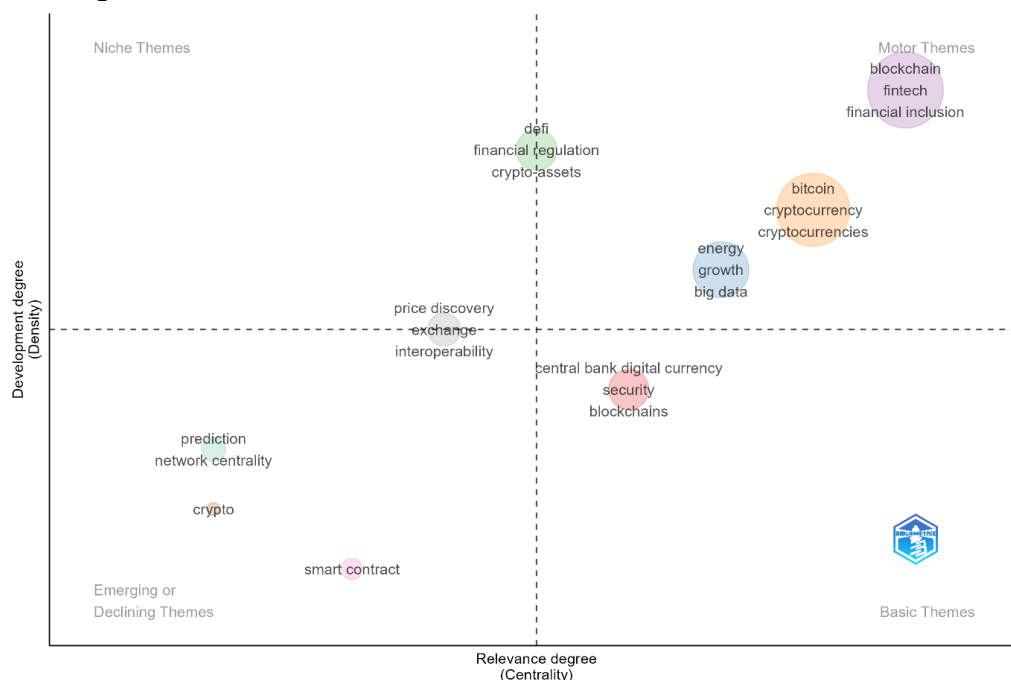


Figure 7 Thematic Map

Source: Bibliometric analysis done with the help of R Studio software

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The thematic map shows that *blockchain*, *fintech*, and *financial inclusion* function as **motor themes**, indicating their strong development and central role in the research field. *Bitcoin*, *cryptocurrency*, *energy*, *growth*, and *big data* emerge as **basic themes**, forming the intellectual foundation that connects various research streams. *DeFi*, *financial regulation*, and *crypto-assets* are positioned as **niche themes**, reflecting their advanced but more specialized focus. In contrast, topics such as *smart contracts*, *prediction*, and *network centrality* fall under **emerging or declining themes**, suggesting areas that are either at an early stage of exploration or losing research momentum. Overall, the map highlights a field driven by technological and financial innovation, with blockchain-based solutions at its core.

## FINDINGS

### 1. The growth and trends in research publications on blockchain and financial inclusion.

The annual scientific production shows that research activity was very limited until 2019, with gradual growth. A sharp increase began in 2020, reaching its peak in 2024 with more than 50 publications. This trend reflects the rising global attention to blockchain's role in finance and the policy push toward financial inclusion, though 2025 shows a slight decline, likely due to incomplete indexing or stabilization of output.

### 2. The most influential sources, authors, institutions, and countries.

The most influential sources are Finance Research Letters and International Review of Financial Analysis, each with nine publications, followed by Economics Letters and Sustainability. Among authors, Yarovaya L dominates with 15 publications, while Jalan A, Matkovskyy R, Lucey BM, and Naeem MA are secondary contributors. At the institutional level, Solent University, University of Southampton, and Hunan University lead in output. In terms of countries, China is the most prolific, followed by the UK, USA, India, and Italy, demonstrating both Asian and Western dominance in this area of research.

### 3. The intellectual, social, and conceptual structures of the field.

Co-citation analysis highlights foundational works such as Schuetz (2020, International Journal of Information Management) and Urquhart (2018, Economics Letters) as intellectual anchors. Social structure analysis shows China's dominance through single-country papers (SCP), whereas the UK and Germany demonstrate stronger international collaborations (MCP). Conceptual structures derived from keyword co-occurrence reveal that blockchain, bitcoin, cryptocurrency, fintech, and financial inclusion form the core themes, supported by clusters around digital finance, volatility, and innovation.

### 4. The conceptual structure of the field through keyword co-occurrence and thematic mapping, and to identify key, niche, and emerging themes.

Keyword analysis shows that blockchain, bitcoin, cryptocurrency, fintech, and financial inclusion dominate the discourse, forming the field's core. The thematic map further illustrates that blockchain-fintech-financial inclusion functions as a motor theme, driving much of the scholarship. Specialized but less central research around volatility and gold represents niche themes. Meanwhile, CBDCs, digital identity, and DeFi emerge as newly

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developing themes, signalling a transition from cryptocurrency-centered discussions to broader financial and policy applications of blockchain

## 5. Research gaps and propose directions for future studies.

The analysis reveals limited regional diversity with most research concentrated in China, the US, and Europe leaving gaps in Africa, South Asia, and Latin America. There is also a shortage of empirical studies examining blockchain adoption in real-world financial inclusion initiatives. Furthermore, social dimensions, including gender, rural households, and marginalized communities, remain underexplored. Ethical and sustainability concerns, such as blockchain's energy use, cybersecurity risks, and regulatory challenges, also present gaps that future research should address.

## CONCLUSION

This study provides a comprehensive bibliometric and science mapping analysis of research on blockchain and financial inclusion, based on 181 publications indexed in the Web of Science between 2010 and 2025. The results demonstrate that the field is relatively young but rapidly expanding, with a notable surge in publications after 2020. The analysis highlights Finance Research Letters and International Review of Financial Analysis as leading journals, while Yarovaya L emerges as the most prolific author. Solent University, the University of Southampton, and Hunan University are identified as key institutional contributors, with China dominating overall scientific production, followed by the United Kingdom, the United States, India, and Italy. Co-citation analysis reveals foundational contributions from works on blockchain adoption and financial applications, while keyword analysis identifies blockchain, cryptocurrency, fintech, and financial inclusion as the dominant themes. Thematic mapping further underscores the centrality of blockchain-fintech-financial inclusion as a motor theme, alongside the emergence of CBDCs, digital identity, and DeFi as new areas of inquiry. Despite this progress, research remains geographically concentrated and conceptually limited, with insufficient focus on regulatory frameworks, socio-economic impacts, and empirical applications in underrepresented regions. Overall, the study enriches understanding of the intellectual, social, and conceptual structures of the field and offers valuable insights for researchers, policymakers, and practitioners aiming to leverage blockchain as a tool for advancing inclusive finance.

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