International Journal of Banking, Risk and Insurance
13 (3) 2025, 45-57
www.publishingindia.com/ijbri/
https://doi.org/10.21863/ijbri/2025.13.3.005

Submitted: 10 September, 2024
Accepted: 06 January, 2025

A Bibliometric Journey: Understanding India's Finance Research Landscape During COVID-19

Sunil Kumar*

Abstract

COVID-19 happened to be the black swan event that has shocked the whole world which is still struggling with some or the other way. The research in the finance domain also surged in the aftermath of the pandemic. India is one of the top countries that have had severe effects of the pandemic therefore this study reviewed the whole finance literature that have been published in India by taking COVID-19 as a main variable. A total of 621 research papers were retrieved from the Scopus database and to review them systematically, authors employed Bibliometric analysis methodology. The study finds that the publication trend moves upward significantly. It also finds the most productive authors, journals and institutions. Additionally, this review segregates the whole literature into four clusters namely "COVID-19 and Stock markets", "Risk Hedging", "Behavioural Studies" and "Supply chain finance". This review culminates the knowledge structure and throws light on the future research directions. To the best of authors' knowledge, this is the first study that reviewed the Finance and pandemic literature of India.

Keywords: Literature Review, India, COVID-19, Bibliometric, Finance, Pandemic

Introduction

In the annals of history, there arise moments that test the resilience and adaptability of nations, institutions and individuals. The COVID-19 pandemic stands as a stark testament to such a moment, casting its shadow over every facet of human existence including the realm of finance (Borri & Giorgio, 2022; Mishra et al., 2020; Shehzad et al., 2020). In the context of India, a country known for its vibrant financial sector (Bhatia & Gupta, 2020) and dynamic research landscape, the pandemic presented a unique set of challenges and opportunities that have reshaped the trajectory of finance research. As the world grappled with the unprecedented disruptions caused by the virus; the finance sector in India found itself at the intersection of crisis and innovation (Lamba et al., 2024). The pandemic unleashed a wave of uncertainty, volatility and economic upheaval, triggering a cascade of effects that reverberated through markets, policies and scholarly pursuits. However, literature still has the gaps in how the pandemic has reshaped research in the finance domain in India.

This article undertakes a comprehensive review of finance research in India during the COVID-19 era, employing the lens of bibliometric analysis to unravel the trends, patterns and insights that have emerged. Following are the research questions (RQs) on which the whole article builds upon. RQ1: what is the publication trend in the finance and COVID-19 research in India? RQ2: Who are the most productive authors, journals and institutions in the finance and COVID-19 research in India? RQ3: Who are the most influential authors, journals and articles of finance and COVID-19 research in India? RQ4: What is the knowledge structure of finance and COVID-19 research in India? RQ5: What are the emerging themes and future directions in the finance and COVID-19 research in India?

The rest of the article is as follows: Section 2 presents the methodology and data used in the review. After that, section 3 depicts the results and findings that comprise performance analysis and science mapping. Section 4 concludes the study.

* Assistant Professor, Department of Commerce, Shaheed Bhagat Singh College (Evening), University of Delhi, New Delhi, India. Email: sunil.kumar1977@sbse.du.ac.in

Methodology

Advancements in any field occur when researchers collaborate, identify research gaps and explore new avenues. A review article plays a crucial role in this process by synthesising existing knowledge, reconciling conflicting findings and proposing innovative directions for further research. Various methodologies such as narrative review, systematic literature review (SLR), bibliometric review, methodological review and theoretical review are employed to achieve these goals (Paul & Rialp, 2020).

Among these methodologies, systematic literature review (SLR) (Jain & Roy, 2024) and bibliometric analysis have gained prominence as reliable methods in recent years (Donthu et al., 2021). While bibliometric analysis primarily focuses on quantitative data (Kaur & Gupta, 2024; Sharma & Singh, 2024), SLR delves into qualitative analysis. However, bibliometric reviews are renowned for their ability to synthesise a vast amount of material, making them invaluable for understanding the current state of research in a specific field (Paul & Rialp, 2020).

In this study, we chose to utilise the bibliometric methodology to explore the landscape of finance research in India. The search strategy was designed to be explicit, clear and replicable, following guidelines from prior literature (Donthu et al., 2021). We limited our search to article titles and keywords to ensure the inclusion of all relevant papers while minimising the risk of omitting important contributions. Our search yielded a substantial number of documents, which necessitated a systematic screening and selection process.

We focused our attention on the Scopus database due to its extensive coverage in the fields of business, management, economics and finance. Initially, we retrieved 36,224 documents related to COVID-19 and finance research in India. However, to ensure the quality and relevance of our sample, we applied several exclusion criteria. Firstly, we narrowed down our search to articles classified under the subject areas of "business, management, and accounting" or "economics, econometrics, and finance", resulting in 8,590 documents. Subsequently, we filtered for article and review article types, leading to 7,224 documents. Further refinement was done by excluding articles not published by Indian institutions, leaving us with 623 papers. Finally, we focused on papers written in English for consistency and ended up with a dataset of 621 articles for our bibliometric analysis.

Results

Table 1: Descriptive of Data

Description	*Results*
Period	2020:2024
Sources	272
Research papers	621
Mean citations per research paper	7.411
Keywords Plus	786
Writer's Keywords (DE)	1999
Number of Writers	1274
Authors of single-authored research papers	71
Single-authored research papers	78
Co-Authors per research paper	2.82
International co-authorships %	24.15
Empirical paper	581
Review paper	40

Over the span of 2020–2024, researchers delved into 621 documents sourced from 272 different journals and books (Table 1). Each of these documents received an average of about 7 citations, indicating their impact and relevance in the scholarly community. Exploring diverse topics, the researchers identified 786 Keywords Plus and 1999 Writer's Keywords, showcasing the wide range of subjects covered. What's interesting is that 1274 authors contributed to this body of work. Among them, 71 individuals authored their own papers, totalling 78 solo-authored documents. Collaboration was also common, with an average of nearly 3 co-authors per document. What's more, about a quarter of these collaborations were international, showing how research transcends borders and brings together experts from around the world. The documents themselves varied in type, with 581 empirical papers and 40 review papers. This mix reflects the depth and breadth of research activities undertaken during this period, covering everything from in-depth analyses to critical evaluations of existing literature.

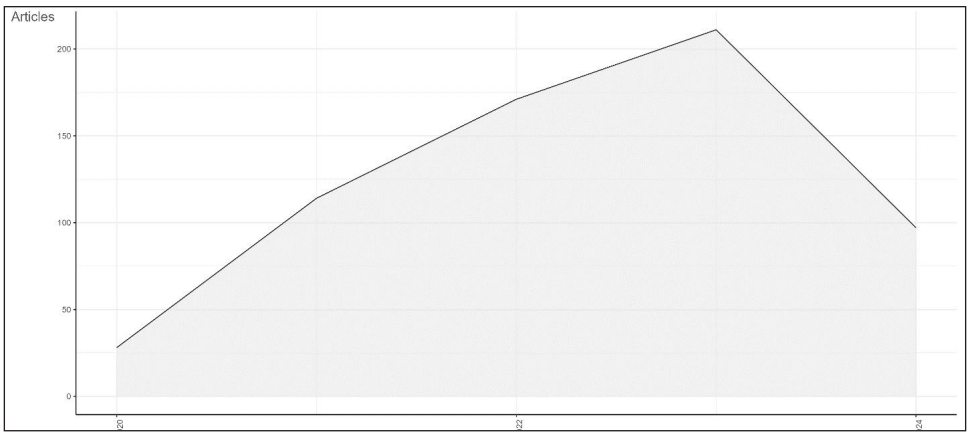

Fig. 1: Annual Production

The Annual Scientific Production graph (Fig. 1) illustrates the number of articles published per year related to finance research on COVID-19 in India. Initially, there was a surge in publications, likely corresponding to the pandemic's onset when urgent research was needed. However, after reaching a peak, the number of publications gradually declined. This decline could be due to knowledge consolidation, a shift in research focus, or research fatigue. Policymakers can use this information to allocate resources effectively, and future studies should explore long-term consequences. Overall, the graph reflects academia's dynamic response to global crises and provides valuable insights for practitioners and policymakers.

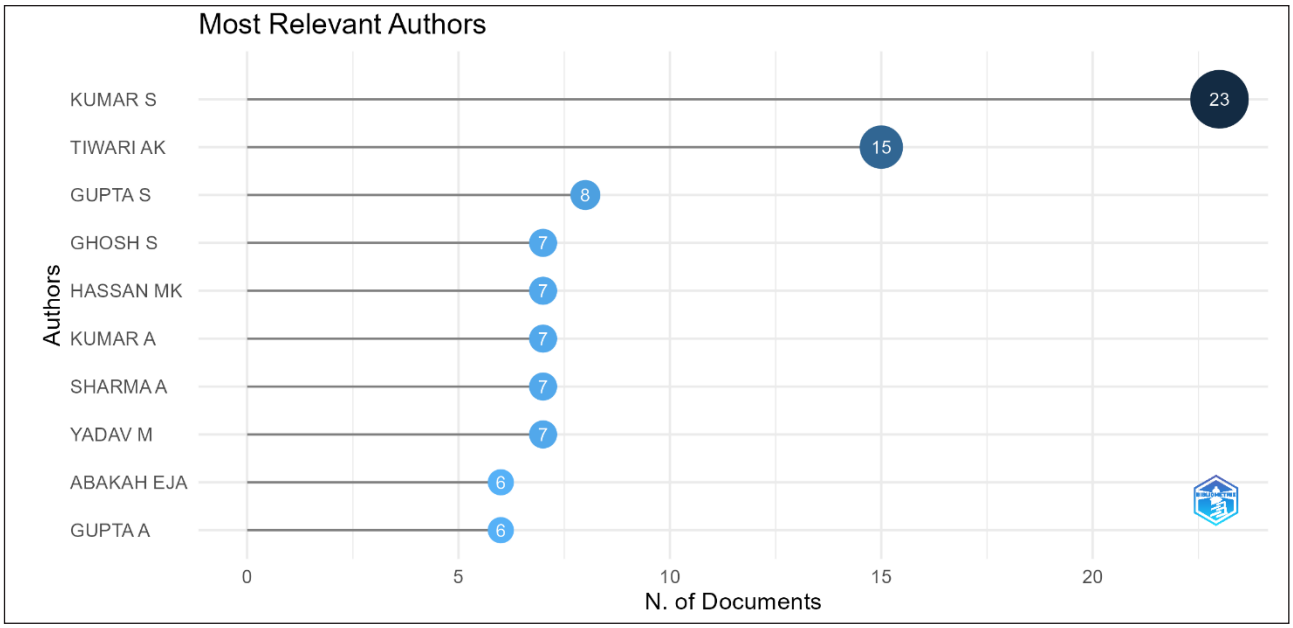

Fig. 2: Top Productive Authors

Fig. 2 offers a glimpse into the vibrant world of finance research in India, showcasing the efforts of various prolific authors. At the forefront, Kumar S stands out with an impressive 23 articles, reflecting his substantial involvement and collaborative spirit, as shown by his fractional contribution of 7.08. Tiwari AK follows closely with 15 articles and a fractional score of 3.87, indicating his active but widely shared research endeavours.

Gupta S, with 8 articles and a fractional score of 2.48, has also made a significant mark, though his work is more moderately distributed among collaborations. The group of Ghosh S, Hassan MK, Kumar A, Sharma A and Yadav M, each with 7 articles, presents an interesting diversity. Ghosh S and Sharma A, with fractional scores of 2.40 and 2.60, respectively, seem to have more focused contributions, suggesting their deep involvement in fewer projects. On the other hand, Hassan MK and Yadav M, with lower scores of 1.78 and 1.96, likely worked on a broader range of projects, collaborating extensively with other researchers. Similarly, Abakah EJA and Gupta A, each contributing 6 articles, have fractional contributions of 1.50 and 2.03, respectively. This indicates their engagement in meaningful collaborative research while maintaining a distinct presence in their work.

Overall, this distribution highlights the collaborative nature of finance research in India, where a blend of concentrated and widespread collaborative efforts helps shape the field. Each author's contribution, whether through focused or extensive collaborations, adds a unique dimension to the collective scholarly landscape.

Table 2: Top Influencing Authors

Author Name	*H Index*	*G Index*	*M Index*	*TC*	*NP*
Kumar S	9	16	1.8	263	23
Tiwari AK	7	15	1.75	276	15
Hassan MK	5	7	1	227	7
Ghosh S	4	7	1	157	7
Kumar A	4	6	1	40	7
Mishra SK	4	5	0.8	109	5
Rabbani MR	4	4	1	180	4
Shaikh I	4	5	1	101	5
Sharma A	4	7	1	75	7
Singh G	4	5	0.8	136	5

Note: TC = Total Citations, NP = Number of Publications.

Table 2 offers a detailed perspective on the most influential authors in finance research in India, highlighting their impact and productivity. Kumar S stands out with a high H index of 9, a G index of 16 and an M index of 1.8, reflecting his prolific output and significant influence, underscored by 263 citations across 23 publications. Tiwari AK also makes a strong impression with an H index of 7, a G index of 15 and an M index of 1.75, accumulating 276 citations from 15 publications, showcasing his notable impact on the field. Hassan MK, with an H index of 5, a G index of 7 and an M index of 1, has garnered 227 citations over 7 publications, reflecting his influential yet concentrated research contributions. Ghosh S and Kumar A, both with H indexes of 4 exhibit different levels of impact. Ghosh S has a G index of 7 and an M index of 1, leading to 157 citations across 7 publications, whereas Kumar A, with a G index of 6 and the same M index, has 40 citations from 7 publications, indicating a more niche influence. Mishra SK, Rabbani MR and Shaikh I, each with H indexes of 4, have G indexes of 5, 4 and 5, respectively, and M indexes ranging from 0.8 to 1. Mishra SK has 109 citations across 5 publications, Rabbani MR has 180 citations from 4 publications and Shaikh I has 101 citations over 5 publications, showing their targeted but impactful research. Sharma A, with an H index of 4 and a G index of 7, has 75 citations from 7 publications, while Singh G, with the same H index and a G index of 5, has achieved 136 citations across 5 publications. This diverse array of metrics underscores the significant and varied contributions these researchers have made to the field of finance in India, each bringing a unique impact through their scholarly work.

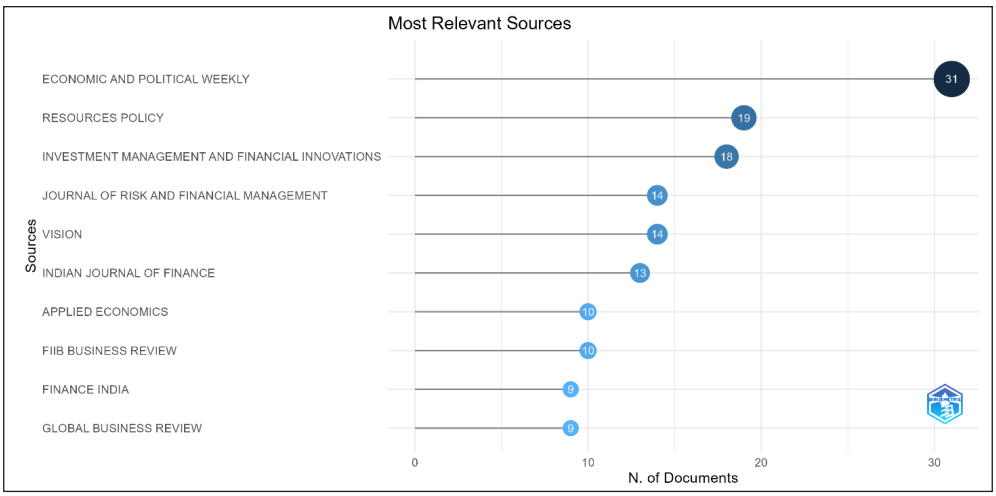

Fig. 3: Top Productive Sources

Fig. 3 highlights the most relevant journals in the field of finance that have published a significant number of papers on COVID-19 from Indian researchers. Leading the pack is the "Economic and Political Weekly", with 31 documents, showcasing its prominence in disseminating crucial research during the pandemic. Following this, "Resources Policy" and "Investment Management and Financial Innovations" have published 19 and 18 documents, respectively, reflecting their substantial contributions to understanding the financial impacts of COVID-19. The "Journal of Risk and Financial Management" and "VISION" each published 14 documents, indicating their roles in exploring the multifaceted risks and strategic visions shaped by the pandemic. The "Indian Journal of Finance" and "Applied Economics", both with 10 documents, have also played significant roles in contextualising financial issues within the Indian framework during the crisis. Meanwhile, the "FIIB Business Review" and "Finance India", each with 9 documents, and the "Global Business Review", with 9 documents, highlight their focused yet impactful engagement with COVID-19-related financial research. This distribution underscores the diverse yet concentrated efforts of Indian researchers in prominent journals to address the multi-faceted financial challenges posed by the pandemic, contributing to a broad understanding and providing critical insights into managing such unprecedented crises.

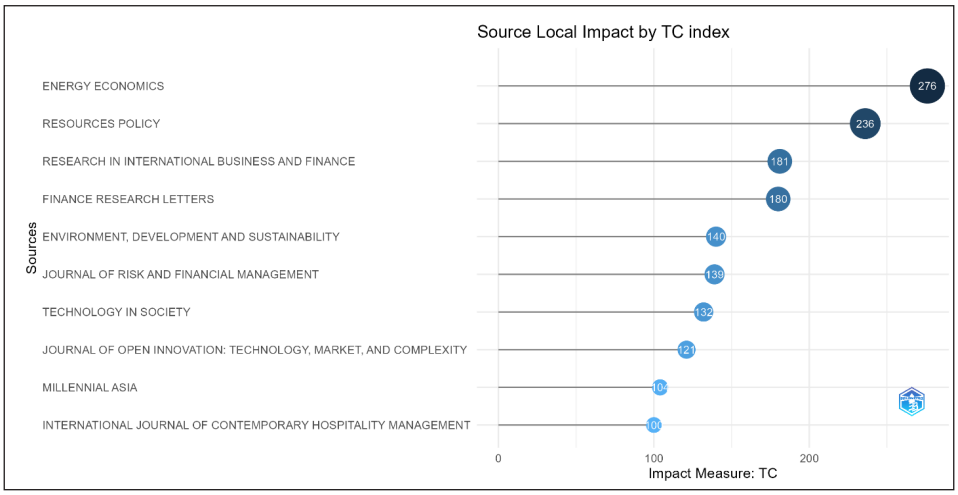

Fig. 4: Top Influencing Sources

Fig.4 highlights the most impactful journals in finance and COVID-19 research in India, measured by citations. Leading the way is "Energy Economics" with 276 citations, underscoring its crucial role during the pandemic. "Resources Policy" follows with 236 citations, reflecting its significant contributions. "Research in International Business and Finance" and "Finance Research Letters" each garnered around 180 citations, showcasing their global impact. The "Environment, Development and Sustainability" journal, with 140 citations, highlights sustainable financial practices. The "Journal of Risk and Financial Management", with 139 citations, emphasises managing financial risks during the crisis. "Technology in Society" and the "Journal of Open Innovation: Technology, Market, and Complexity", with 132 and 121 citations, respectively, focus on the interplay of technology and finance. "Millennial Asia" and the "International Journal of Contemporary Hospitality Management", with 104 and 100 citations, respectively, underscore regional economic impacts and the hospitality sector's financial strategies. These journals collectively highlight the diverse and significant contributions to understanding and addressing the financial challenges posed by COVID-19 in India.

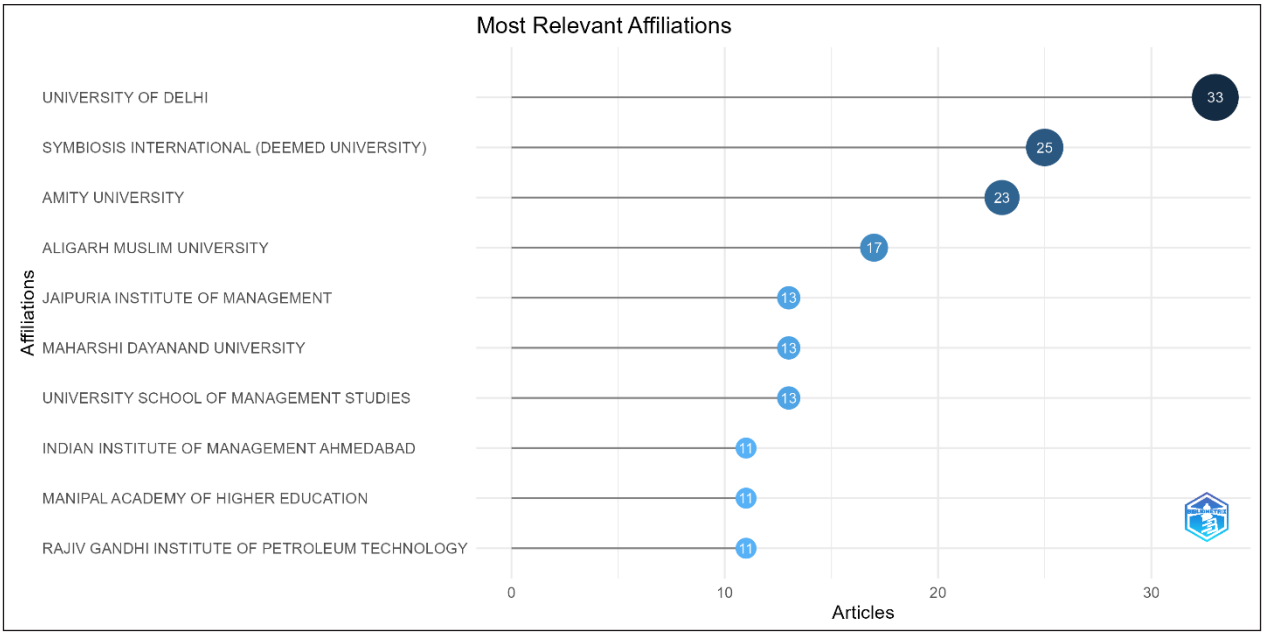

Fig. 5: Top Productive Institutions

Fig. 5 showcases the most productive institutions in India for finance and COVID-19 research, highlighting their prolific contributions to the field. Leading the chart is the University of Delhi with 33 publications, demonstrating its central role in advancing financial research during the pandemic. Following closely is Symbiosis International (Deemed University) with 25 articles, and Amity University with 23, both illustrating their significant scholarly output. Aligarh Muslim University has contributed 17 articles, reflecting its active engagement in this critical research area. The Jaipuria Institute of Management, Maharshi Dayanand University and University School of Management Studies each produced 13 publications, showcasing their substantial academic involvement. Additionally, the Indian Institute of Management Ahmedabad, Manipal Academy of Higher Education and Rajiv Gandhi Institute of Petroleum Technology each contributed 11 articles, underscoring their commitment to addressing financial challenges posed by the pandemic. This distribution highlights the diverse and dedicated efforts of these institutions in shaping the discourse on finance amid COVID-19 in India.

Table 3: Top Influencing Articles

Article DOI	*Total Citations*	*TC Per Year*	*Normalized TC*
10.1016/j.techsoc.2021.101847	132	44.00	13.30
10.1016/j.eneco.2022.106235	114	38.00	11.49
10.1108/IJCHM-11-2020-1246	100	25.00	6.92
10.1016/j.ribaf.2020.101287	91	18.20	5.61
10.1177/0972150920957274	79	15.80	4.87
10.3390/jrfm13090208	76	15.20	4.69
10.1016/j.eneco.2022.105842	75	25.00	7.56
10.3390/joitmc7020136	73	18.25	5.05
10.1016/j.frl.2022.102707	65	21.67	6.55
10.1007/s10668-020-00934-4	65	16.25	4.50

Table 3 highlights the most influential articles in the field of finance and COVID-19 in India, showcasing their significant contributions through citation metrics. Leading the list is "Supply chain resilience during the COVID-19 pandemic", with 132 total citations, an impressive 44 citations per year and a normalised citation count of 13.30, underscoring its pivotal role in understanding supply chain dynamics amidst the crisis. "Quantile risk spillovers between energy and agricultural commodity markets" follows closely with 114 citations and a notable 38 citations per year, emphasising the interconnectedness of commodity markets during the pandemic. The study on the "Role of artificial intelligence and robotics in touchless travel" garnered 100 citations, reflecting its relevance in shaping travel industry practices during COVID-19. Other significant works include research on trade credit dynamics before and after the 2008 financial crisis, and the stock market responses to COVID-19, each providing crucial insights into financial stability and market behaviour. Articles exploring volatility in international stock markets, the connection between green bonds and financial markets and the role of Islamic fintech in addressing COVID-19's economic impacts further enrich the discourse with diverse perspectives. Additionally, studies testing the safe-haven properties of gold and bitcoin, and the volatility in commodity markets during the pandemic, highlight the broad spectrum of financial research aimed at navigating unprecedented economic disruptions. These influential articles collectively advance our understanding of the multifaceted financial challenges and innovations prompted by the COVID-19 pandemic in India.

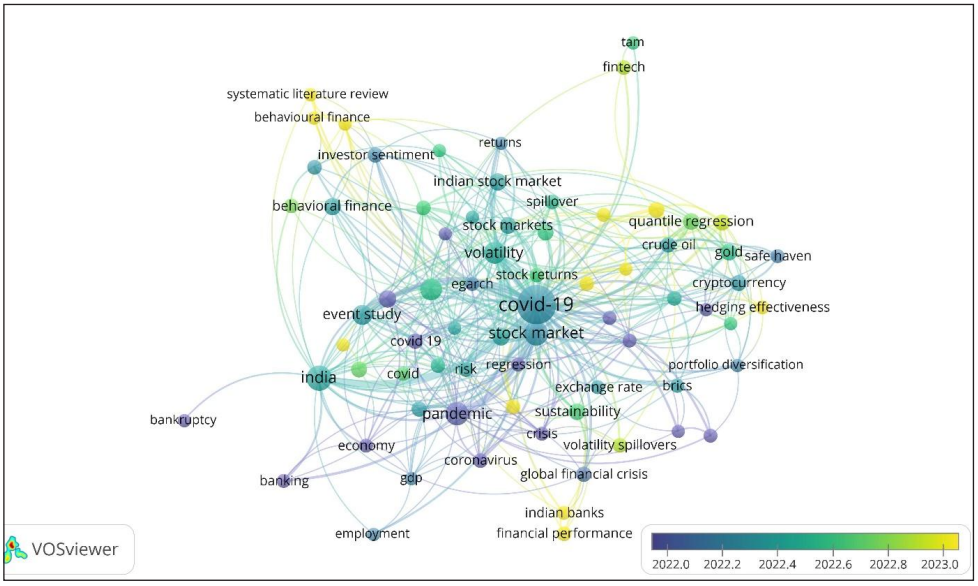

Fig. 6: Keyword Analysis

Keyword co-occurrence, or co-word analysis, in Fig. 6 can be used to further detail the theme clusters and provide direction for future research in specific fields (Batra et al., 2022; Donthu et al., 2021). The idea is that terms in a cluster are likely to share a common topic (Goel et al., 2021). Following the guidelines of (Van Eck & Waltman, 2010), we first developed a keyword thesaurus file. Then, we established a minimum of five occurrences for each term to create the keyword network map (Fig. 6).

Fig. 6 illustrates the most frequently used keywords in the literature and their connections to one another. The size of each node represents the frequency at which a keyword appears, with larger nodes indicating a higher frequency and smaller nodes indicating a lower frequency. The colour of each node corresponds to the term's frequency within a specific year, as depicted on the scale in Fig. 6. Given that the article synthesises research in the COVID-19 period, it is expected that "COVID-19" would be the largest node and present in every article. Additionally, there are several other prominent keywords such as "Stock market", "Volatility", "Exchange rate", "Banking" and "stock returns". The proximity of these keywords to the largest node suggests that they are well-covered in the literature. The farther away a keyword is from the centre of Fig. 6, the more evidence can be found for it from different perspectives or nations.

The emerging keywords are represented by nodes that are yellow in colour, and those that are far too unexplored imply that they are emerging. A popular area of study at the moment is "behavioural finance", where academics have looked at the finance domain from a behavioural approach. The recent crisis of COVID-19 has triggered the scholars of finance to advance the research while incorporating these crises. Still, there is a dearth of research on COVID-19 and its impact on the banking industry. "Fintech", "Volatility spillovers" and "sustainability" are the emerging keywords which indicate the importance of sustainable development in the realm of finance. The "Fintech" research is widely based upon the "TAM" (Technology Acceptance Model) framework, which leaves scope to fetch the new findings by using other theories in usage intention. From an investor's point of view, "hedging effectiveness" is a hot topic that academia is working on. On the methodological front, a lot of work has been done with the help of traditional regression models; however, these days scholars are leveraging the power of contemporary models such as "sentiment analysis" and "quantile regression". Moreover, literature still has scope to leverage the power of other latest methods such as "wavelet", and "Markov-switching".

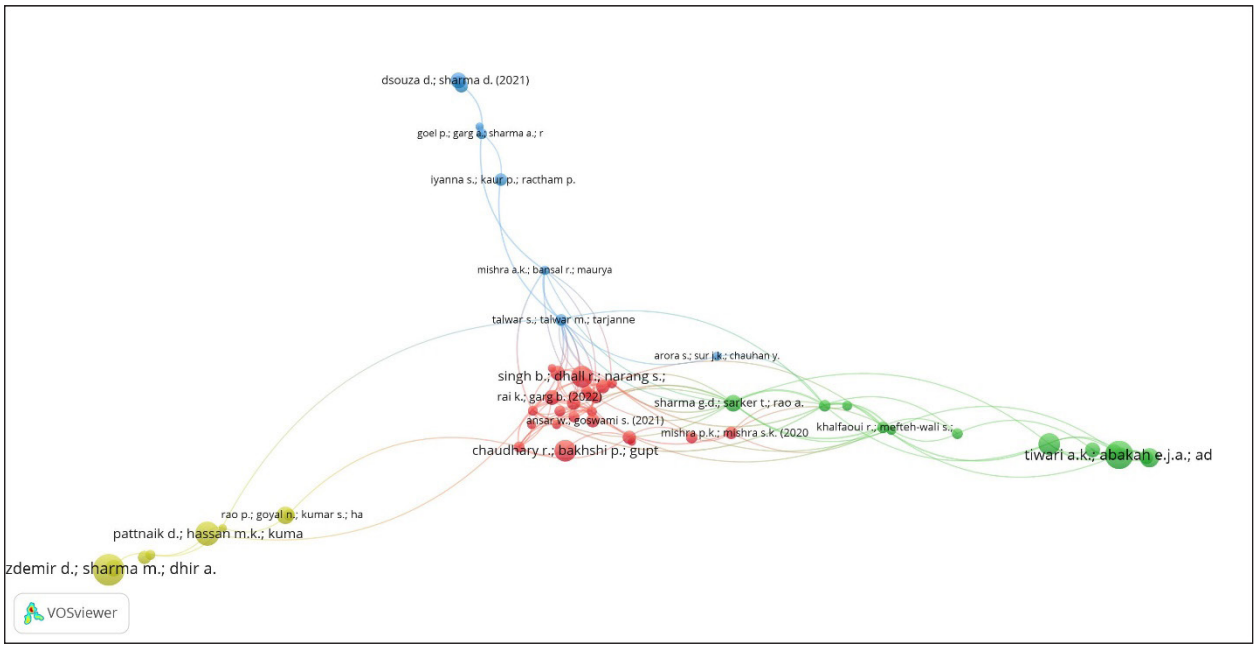

Fig. 7: Bibliographic Coupling

In order to identify research topics and choose future paths, the clusters are extracted through the use of bibliographic coupling of texts (Fig. 7) (Donthu et al., 2021). Finally, four clusters were created. After that, content analysis is executed to fetch out the research theme as future directions from each cluster.

Cluster 1. COVID-19 and Stock Markets

The studies in this cluster examine the impact of the pandemic on the stock markets. The majority of the research found that COVID-19 has negative impacts on the returns of the share markets. The increasing stock market panic brought on by a rise in COVID-19 positive cases across the G-20 nations was the cause of the negative returns (Singh et al., 2020) and the fear of COVID-19 was persistent for a significant period (Subramaniam & Chakraborty, 2021). Some studies opine that changes in the exchange rate and oil price were the most significant factors in channelising the fear of a pandemic (Rai & Garg, 2022). There were significant risk transfers between the stock and exchange rate markets in the pandemic. Overall, COVID-19 sentiment generated excess volatility in the market (Chaudhary et al., 2020; Chundakkadan & Nedumparambil, 2022). Additionally, some markets even show more volatility in the pandemic than in the Global Financial Crisis (Rakshit & Neog, 2022). Nevertheless, there always remain some sectors that are attractive to investors in the pandemic, such as consumer staples, healthcare, telecommunications, utilities and financials (Ahmad et al., 2021).

Cluster 2. Risk Hedging

Research in this cluster examines the connectedness and risk transmission among various markets and asset classes. The primary focus of studies in this cluster is to find the assets that have the potential to hedge the risk in extreme market conditions. Green investments are also better avenues to invest without losing the value of the investment in the high-volatility period (Khalfaoui et al., 2023; Sharma et al., 2022). However, the green markets somehow lose their hedging properties to some extent since there exists a high connectedness in broad markets and green markets in long run; therefore, allocating the funds in conventional, green and energy markets simultaneously is the better approach to hedge the risk (Elsayed et al., 2022). Moreover, in countries like India, green assets may not be a good option (Shrimal et al., 2024). Investors may also include the commodity markets to diversify the risk, such as the sugar market (Tiwari et al., 2022). Investing in traditional and Islamic companies that deal with technology and utilities would offer a stronger hedging advantage than other financial sectors during periods of heightened market risk brought on by health pandemics. To mitigate risks more strongly than others, investment portfolios should include a larger percentage of stocks from certain sectors, such as basic materials, financial services, industrials and oil and gas stocks in the conventional market and financial services and oil and gas stocks in Islamic markets (Adekoya et al., 2022). Moreover, gold and bitcoin exhibits safe-haven properties for stock markets (Kumar & Padakandla, 2022) and rare earth metal markets (Song et al., 2021).

Cluster 3. Behavioural studies

Research in this cluster examines the behaviour of various participants in the markets, such as investors, customers and corporations, during the pandemic. Like a normal period, the crisis period also witnesses the impact of behavioural biases on the investing decisions of the investors. In Indian markets herding in the FMCG, pharma and auto sector was detected (C. Sharma & Lodha, 2024). The following factors affect trading behaviour and recommendation intentions: herding, hindsight, overconfidence and self-attribution, representativeness and anchoring (Mishra et al., 2023). However, herd behaviour did not impact the investment intention towards mutual funds, unlike attitude, awareness and investment decision, which have a significant positive relation with investment intention (Mishra et al., 2023). Other studies focus on the individual behaviour adopting the mobile payments. Perceived severity and trust acts as stimuli for M-payment loyalty (Goel et al., 2022). If the organisation uses the innovation in handling the customers, then it may be possible that there will be decrease in customer retaliation and negative electronic word of mouth (Agnihotri et al., 2022). To enable the innovation in organisation operations various barriers should be tackled first such as threat perception and infrastructural barriers (Iyanna et al., 2022).

Cluster 4. Supply Chain Finance

The studies in this cluster focus on supply chain management. The COVID-19 pandemic has challenged supply chains more seriously than ever before. In the resilience of supply chain management during the pandemic, innovation featured as the most effective factor, followed by robustness, empowerment and risk management via reduced risk (Ozdemir et al., 2022). The similar results are presented by (S. Paul et al., 2022), where researchers opine that blockchain-enabled SCF firms were not affected by the COVID-19 onset. Higher research and development (R&D) and capital expenditures by firms safeguard them from loss. However, government effectiveness is crucial for such innovations (Dubey et al., 2023).

The coupling analysis and keyword analysis fetch the knowledge that builds the literature of finance in India on COVID-19. Moreover, through an in-depth review of the articles, various future directions are retrieved that are mentioned in Table 4.

Table 4: Future Research Directions

Cluster	*Current Knowledge*	*Future Directions*
COVID-19 and stock markets	The pandemic negative impact on stock returns and volatilities, however, the impact did not persist in the long term.	Ques 1. How did the volatility of Indian stock markets change with different phases of the pandemic? Ques 2. Which sectors were the most affected and resilient in Indian stock markets?
Risk Hedging	Risk diversification properties of assets such as green assets, bitcoin and commodities are examined.	Ques 1. Whether sustainable indices able to diversify the pandemic risk in the Indian stock markets? Ques 2. Which asset class plays the role of safe haven and risk hedger in the Indian stock markets?
Behavioural studies	Investor's behaviour in the pandemic times regarding investment and buying is examined.	Ques 1. How did the financial influencer impact the behaviour of the Indian investors during COVID-19? Ques 2. Whether the fear of pandemic kept the investors away from the markets?
Supply Chain Finance	Resilience of supply chain is studied. Innovation is the most significant factor in the resilience.	Ques 1. What impact has COVID-19 had on the credit risk associated with supply chain finance in the Indian market? Ques 2. What are the key challenges faced by Indian companies in implementing supply chain finance post-pandemic?

Conclusion

Finance research in India plays a crucial role in understanding and addressing economic challenges, shaping policy decisions and fostering sustainable growth. It provides valuable insights into market dynamics, financial stability and economic resilience, especially in times of crisis like the COVID-19 pandemic. This study opted for bibliometric review methodology to review the articles that were published in India through the lens of COVID-19. The study finds, first, that the annual production of such articles is still increasing. Second, Satish Kumar and Aviral Kumar Tiwari are the most productive and influential authors who have published the finance article by incorporating COVID-19. Third, considering the sources, "Economic and Political Weekly" and "Resource Policy" are the most productive journals. However, only "energy economics" joins the most influential journals club along with the "Resource Policy". Fourth, "University of Delhi" and "Symbiosis International" were the most productive institutions that have worked in the finance area while incorporating COVID-19. Fifth, this study fetched the whole literature and it is segregated into four clusters namely "COVID-19 and stock markets", "Risk Hedging", "Behavioural studies" and "Supply chain finance". All these four clusters present the current knowledge and their in-depth content analysis paves the way for future research questions.

Like any other study, this study also suffers from some limitations; first, only a single source of database is

used. Future scholars may use multiple databases to retrieve a greater number of articles and generalise the findings. Second, the comparison of the development of the literature between developed and developing nations can be carried out. This leaves a research scope for future researchers.

References

Adekoya, O. B., Oliyide, J. A., & Tiwari, A. K. (2022). Risk transmissions between sectoral Islamic and conventional stock markets during COVID-19 pandemic: What matters more between actual COVID-19 occurrence and speculative and sentiment factors? *Borsa Istanbul Review, 22*(2), 363–376. doi:https://doi.org/10.1016/J.BIR.2021.06.002

Agnihotri, D., Kulshreshtha, K., & Tripathi, V. (2022). Emergence of social media as new normal during COVID-19 pandemic: A study on innovative complaint handling procedures in the context of banking industry. *International Journal of Innovation Science, 14*(3–4), 405–427. doi:https://doi.org/10.1108/IJIS-10-2020-0199/FULL/XML

Ahmad, W., Kutan, A. M., & Gupta, S. (2021). Black swan events and COVID-19 outbreak: Sector level evidence from the US, UK and European stock markets. *International Review of Economics & Finance, 75,* 546–557. doi:https://doi.org/10.1016/J.IREF.2021.04.007

Batra, S., Saini, M., Yadav, M., & Aggarwal, V. (2022). Mapping the intellectual structure and demystifying the research trend of cross listing: A bibliometric analysis. *Managerial Finance*. doi:https://doi.org/10.1108/MF-07-2022-0330/FULL/PDF

Bhatia, P., & Gupta, P. (2020). Sub-prime Crisis or COVID-19: A Comparative Analysis of Volatility in Indian Banking Sectoral Indices. *FIIB Business Review, 9*(4), 286–299. doi:https://doi.org/10.1177/2319714520972210

Borri, N., & Giorgio, G. di. (2022). Systemic risk and the COVID challenge in the european banking sector. *Journal of Banking & Finance, 140*, 106073. doi:https://doi.org/10.1016/J.JBANKFIN.2021.106073

Chaudhary, R., Bakhshi, P., & Gupta, H. (2020). volatility in international stock markets: An Empirical Study during COVID-19. *Journal of Risk and Financial Management, 13*(9), 208. doi:https:// doi:org/10.3390/JRFM13090208

Chundakkadan, R., & Nedumparambil, E. (2022). In search of COVID-19 and stock market behavior. *Global Finance Journal, 54*, 100639. doi:https://doi.org/10.1016/J.GFJ.2021.100639

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research, 133*(April), 285–296. doi:https://doi.org/10.1016/j.jbusres.2021.04.070

Dubey, R., Bryde, D. J., Dwivedi, Y. K., Graham, G., Foropon, C., & Papadopoulos, T. (2023). Dynamic digital capabilities and supply chain resilience: The role of government effectiveness. *International Journal of Production Economics, 258,* 108790. doi:https://doi.org/10.1016/J.IJPE.2023.108790

Elsayed, A. H., Naifar, N., Nasreen, S., & Tiwari, A. K. (2022). Dependence structure and dynamic connectedness between green bonds and financial markets: Fresh insights from time-frequency analysis before and during COVID-19 pandemic. *Energy Economics, 107,* 105842. doi:https://doi.org/10.1016/J.ENECO.2022.105842

Goel, P., Garg, A., Sharma, A., & Rana, N. P. (2022). I won't touch money because it is dirty: examining customer's loyalty toward M-payment. *International Journal of Bank Marketing, 40*(5), 992–1016. doi:https://doi.org/10.1108/IJBM-06-2021-0272/FULL/XML

Goel, P., Garg, A., Walia, N., Kaur, R., Jain, M., & Singh, S. (2021). Contagious diseases and tourism: A systematic review based on bibliometric and content analysis methods. *Quality and Quantity, 56,* 3085–3110. doi:https://doi.org/10.1007/s11135-021-01270-z

Iyanna, S., Kaur, P., Ractham, P., Talwar, S., & Najmul Islam, A. K. M. (2022). Digital transformation of healthcare sector. What is impeding adoption and continued usage of technology-driven innovations by end-users? *Journal of Business Research, 153,* 150–161. doi:https://doi.org/10.1016/J.JBUSRES.2022.08.007

Jain, Y., & Roy, S. (2024). Analysing the potential of life settlements in emerging markets: A systematic review of legal and economic considerations. *International Journal of Banking Risk and Insurance*, *12*(2), 46–59. doi:https://doi.org/10.21863/ijbri/2024.12.2.004

Kaur, S., & Gupta, K. (2024). Firms sustainability and performance: Critical insights from bibliometric review and content analysis. *Journal of Commerce and Accounting Research*, *14*(1), 79–96. doi:https://doi.org/10.21863/jcar/2025.14.1.007

Khalfaoui, R., Mefteh-Wali, S., Dogan, B., & Ghosh, S. (2023). Extreme spillover effect of COVID-19 pandemic-related news and cryptocurrencies on green bond markets: A quantile connectedness analysis. *International Review of Financial Analysis, 86,* 102496. doi:https://doi.org/10.1016/J.IRFA.2023.102496

Kumar, A. S., & Padakandla, S. R. (2022). Testing the safe-haven properties of gold and bitcoin in the backdrop of COVID-19: A wavelet quantile correlation approach. *Finance Research Letters, 47,* 102707. doi:https://doi.org/10.1016/J.FRL.2022.102707

Lamba, J., Jain, E., & Banerji, P. (2024). Navigating market turbulence: Exploring banking sector volatility amidst COVID-19. *International Journal of Banking Risk and Insurance*, *12*(special), 54–63. doi:https://doi.org/10.21863/ijbri/2024.12.sp.iss.006

Mishra, A. K., Bansal, R., Maurya, P. K., Kar, S. K., & Bakshi, P. K. (2023). Predicting the antecedents of consumers' intention toward purchase of mutual funds: A hybrid PLS-SEM-neural network approach. *International Journal of Consumer Studies, 47*(2), 563–587. doi:https://doi.org/10.1111/IJCS.12850

Mishra, A. K., Rath, B. N., & Dash, A. K. (2020). Does the Indian financial market Nosedive because of the COVID-19 outbreak, in comparison to after demonetisation and the GST? *Emerging Markets Finance and Trade, 56*(10), 2162–2180. doi:https://doi.org/10.1080/1540496X.2020.1785425

Ozdemir, D., Sharma, M., Dhir, A., & Daim, T. (2022). Supply chain resilience during the COVID-19 pandemic. *Technology in Society, 68,* 101847. doi:https://doi.org/10.1016/J.TECHSOC.2021.101847

Paul, J., & Rialp, A. (2020). The art of writing literature review: What do we know and what do we need to know ? *International Business Review, 29*(4). doi:https://doi.org/10.1016/j.ibusrev.2020.101717

Paul, S., Adhikari, A., & Bose, I. (2022). White knight in dark days? Supply chain finance firms, blockchain and the COVID-19 pandemic. *Information & Management, 59*(6), 103661. doi:https://doi.org/10.1016/J.IM.2022.103661

Rai, K., & Garg, B. (2022). Dynamic correlations and volatility spillovers between stock price and exchange rate in BRIICS economies: Evidence from the COVID-19 outbreak period. *Applied Economics Letters, 29*(8), 738–745. doi:https://doi.org/10.1080/13504851.2021.1884835

Rakshit, B., & Neog, Y. (2022). Effects of the COVID-19 pandemic on stock market returns and volatilities: Evidence from selected emerging economies. *Studies in Economics and Finance, 39*(4), 549–571. doi:https://doi.org/10.1108/SEF-09-2020-0389/FULL/XML

Sharma, C., & Lodha, S. (2024). Sector-Wise Herd Behaviour in the Indian Stock Market during COVID-19. *Journal of Commerce and Accounting Research*, *13*(2), 107–116. doi:https://doi.org/10.21863/jcar/2024.13.2.010

Sharma, D., & Singh, T. (2024). Over a decade of social commerce: A bibliometric analysis. *Journal of Commerce and Accounting Research*, *13*(4), 1–11. doi:https://doi.org/10.21863/jcar/2024.13.4.001

Sharma, G. D., Sarker, T., Rao, A., Talan, G., & Jain, M. (2022). Revisiting conventional and green finance spillover in post-COVID world: Evidence from robust econometric models. *Global Finance Journal, 51,* 100691. doi:https://doi.org/10.1016/J.GFJ.2021.100691

Shehzad, K., Xiaoxing, L., & Kazouz, H. (2020). COVID-19's disasters are perilous than global financial crisis: A rumor or fact? *Finance Research Letters, 36.* doi:https://doi.org/10.1016/j.frl.2020.101669

Shrimal, K., Kumar, S., & Shukla, A. (2024). Assessing the influence of ESG factors on stock prices: An analysis of Nifty 50 companies. *International Journal of Banking Risk and Insurance*, *12*(special), 11–16. doi:https://doi.org/10.21863/ijbri/2024.12.sp.iss.002

Singh, B., Dhall, R., Narang, S., & Rawat, S. (2020). The outbreak of COVID-19 and stock market responses: An event study and panel data analysis for G-20 countries. *Global Business Review.* doi:https://doi.org/10.1177/0972150920957274/ASSET/IMAGES/LARGE/10.1177_0972150920957274-FIG6.JPEG

Song, Y., Bouri, E., Ghosh, S., & Kanjilal, K. (2021). Rare earth and financial markets: Dynamics of return and volatility connectedness around the COVID-19 outbreak. *Resources Policy, 74,* 102379. doi:https://doi.org/10.1016/J.RESOURPOL.2021.102379

Subramaniam, S., & Chakraborty, M. (2021). COVID-19 fear index: Does it matter for stock market returns? *Review of Behavioral Finance, 13*(1), 40–50. doi:https://doi.org/10.1108/RBF-08-2020-0215/FULL/XML

Tiwari, A. K., Abakah, E. J. A., Adewuyi, A. O., & Lee, C. C. (2022). Quantile risk spillovers between energy and agricultural commodity markets: Evidence from pre and during COVID-19 outbreak. *Energy Economics, 113,* 106235. doi:https://doi.org/10.1016/J.ENECO.2022.106235

van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics, 84*(2), 523–538. doi:https://doi.org/10.1007/s11192-009-0146-3