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A bibliometric analysis of financial management from Web of Science (WoS) database

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Purpose: This study aims to present a comprehensive knowledge mapping and an in-depth analysis of financial management research to understand better global trends and direction in this field that emerged between 2017 and 2025.

Design/methodology/approach: This study presents a visual analysis of 759 research articles listed in the Web of Science (WoS) databases between the years of 2017 and 2025 use financial management as keyword. The knowledge mapping based on VOSviewer presents the current research status, which contains the analysis of the collaboration network, co-citation network, references with citation bursts and keyword analysis.

Findings: The result that China and United States are the most prominent countries in exploring the financial management. University of California System is the most prominent institution. Higgin Stephen, Zapounidis Constantin, Vochozka Marek and Marouskova Anne are the most prolific authors in this field.

Originality/Value: This study among the pioneers to shed lights on the current research status of financial management using the bibliometric method and the newest data. This study also suggests that collaborations between scholars and institutions require to be enhanced for better management of financial management and to contribute to sustainable development.

KEYWORDS

financial management, bibliometric analysis, VOSviewer paper type: literature review, review article, WOS database

Introduction

Financial management has emerged as a crucial discipline in both academic research and practical applications, particularly in response to global economic challenges and rapid technological advancements. It encompasses a wide range of activities, including budgeting, investment planning, risk assessment, and financial decision-making, all aimed at optimizing an organization's financial resources (Smith, 2023). With increasing global economic complexities, the role of financial management has grown significantly in recent years, especially as organizations face ongoing challenges related to financial crises, technological disruption, and sustainability pressures (Lee et al., 2021).

TABLE 1 Summary of searching details.

| Criteria | Description |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Source website | Web of Science Core Collection |
| Years | 2017–2025 |
| Searching Terms | Financial Management |
| Inclusion criteria | Articles (759), Early Access (19) |
| Exclusion criteria | Review articles (36), Editorial materials (11), Proceeding paper (3), Meeting abstract (2), Book chapters (1), Letter (1), Retracted publication (1) |
| Sample size | 759 |
| Reference size | 130, 711 |
| WoS Index | Science Citation Index Expanded (759), Social Science Citation Index (367) |

Source(s): Web of Science Core Collection.

Since 2017, scholarly interest in financial management has intensified, as reflected by the publication of 130,711 relevant references indexed in the Web of Science Core Collection between 2017 and early 2025. This growing volume of research highlights the expanding importance of financial management in addressing emerging global concerns. The COVID-19 pandemic, in particular, acted as a major catalyst for new research, emphasizing the urgency of sound financial planning, effective risk mitigation, and sustainable practices to navigate economic uncertainty. At the same time, the rapid rise of financial technology (FinTech), including blockchain, digital payment systems, and inclusive finance models, has further accelerated research in this domain. These shifts align with international development goals, notably Sustainable Development Goal (SDG) 8 on decent work and economic growth, and SDG 9 on innovation and infrastructure (United Nations, 2015).

Despite the extensive volume of research, there remains a lack of synthesis and mapping of how financial management research has evolved over time, particularly across high-impact journals. Few studies have systematically examined how the field has responded to global disruptions, technological change, or regional research contributions. Moreover, there is limited understanding of the intellectual structure, thematic evolution, and key areas that remain underexplored, such as the long-term impact of financial management practices on organizational resilience and performance (Nguyen and Dang, 2022). This represents a significant research gap that warrants further exploration.

To address this gap, the present study conducts a comprehensive bibliometric analysis of financial management literature indexed in the Web of Science database from 2017 to 2025. Using VOSviewer as a visualization tool, the study identifies publication trends, influential authors and institutions, commonly used keywords, and emerging research themes. This approach not only offers a clearer picture of the current state of the field but also highlights underexplored areas that can guide future research. By providing a structured overview of the knowledge landscape, the study contributes to the development of a more cohesive understanding of financial management and its progression

over time. The insights gained may support researchers, policymakers, and practitioners in identifying priority areas, fostering international collaboration, and advancing more effective financial strategies in a rapidly changing global environment.

Materials and methodology

Data source

Web of Science (WoS), which contains more than 13,600 journals database (Mongeon and Paul-Hus, 2016) is regarded as an ideal data source for bibliometric analysis (Fang et al., 2018). It has been used in the bibliometric analysis in many social science studies (Sarkar et al., 2022). It is an up-to-date academic database and is also recommended as the preferred database when using VOSviewer software (Chen, 2020). Therefore, authors choose the WoS as the data source in this study. Second for acquiring high-quality articles and excluding interferential articles, the WoS Core Collection was chosen as the final data source, given that this journal has the largest single abstract and indexing database ever built (Pranckute, 2021), and the largest searchable citation and abstract source for searching literature (Zhu and Liu, 2020). Cavacini (2015), found that, WoS provided better quality indexing and better bibliographic records in terms of accuracy, control and granularity of information when compared to others database such as GS and DBLP. WoS also provided more sophisticated tools for measuring trends of scholarly publications (Cavacini, 2015).

According to the information of WoS, there are 759 documents using financial management as keyword was published in 2017–2025. The data collection process for this study started on January 1, 2025, thus the scope of this research is from 2017 to 2025. The detailed search information is summarized in Table 1. For acquiring high-quality data, authors only use research articles as analysis data. After excluding review articles (36), editorial materials (11), proceeding paper (3), meeting abstract (2), book chapters (1), letter (1), retracted publication (1), this study got 759 literature available, which contains articles (759) and early access (19). In WoS, an article can have different document types at the same time. The available article in this study contains 130, 711 related references.

Knowledge mapping

Knowledge mapping has been widely used in bibliometric analysis. Cui et al. (2018) mentioned that knowledge mapping “the quantitative analysis of publications in a given field”. It is a useful way to help researcher better understand the current research status and future research directions of a specified field and known as one of the most widely used methods to assess the impact of previous works (Ding et al., 2014). According to Perianes-Rodriguez et al. (2016), a bibliometric analysis can be used as a tool to understand potential areas of study in a discipline. It is a quantitative indication to analyse previous study trends based on published research articles. This approach

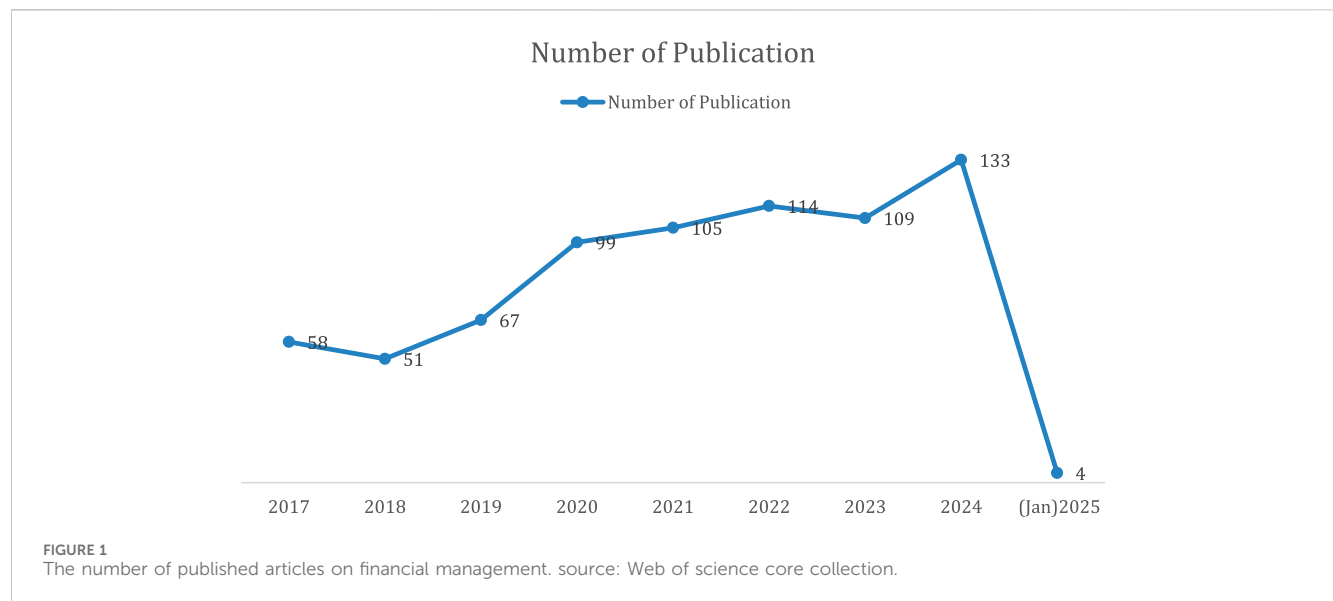


TABLE 2 Main discipline and number of publication.

| Rank | Main discipline | No of publication | Rank | Main discipline | No of publication |
|------|----------------------------------------|-------------------|------|--------------------------------------------|-------------------|
| 1 | Environmental Sciences | 173 | 11 | Computer Science Artificial Intelligence | 38 |
| 2 | Green Sustainable Science Technology | 131 | 12 | Economics | 32 |
| 3 | Environmental Studies | 104 | 13 | Energy Fuels | 32 |
| 4 | Operations Research Management Science | 100 | 14 | Engineering Civil | 28 |
| 5 | Engineering Electrical Electronic | 75 | 15 | Water Resources | 28 |
| 6 | Computer Science Information Systems | 64 | 16 | Engineering Environmental | 24 |
| 7 | Engineering Industrial | 55 | 17 | Healthcare Sciences Services | 23 |
| 8 | Management | 50 | 18 | Mathematics | 21 |
| 9 | Telecommunications | 49 | 19 | Multidisciplinary Sciences | 21 |
| 10 | Engineering Manufacturing | 41 | 20 | Mathematics Interdisciplinary Applications | 20 |

Source(s): Web of Science Core Collection.

TABLE 3 Main authors in financial management discipline.

| Rank | Authors | No of publication | Rank | Authors | No of publication |
|------|------------------------|-------------------|------|---------------------|-------------------|
| 1 | Higgins, Stephen | 5 | 11 | Lai, Shuying | 3 |
| 2 | Zopounidis, Constantin | 4 | 12 | Qiu, Jing | 3 |
| 3 | Vochozka, Marek | 4 | 13 | Harris, Fiona M | 2 |
| 4 | Maroušková, Anna | 4 | 14 | Scarpellini, Sabina | 2 |
| 5 | Lichtenberg, Peter A | 3 | 15 | Elders, Andrew | 2 |
| 6 | Mazanec, Jaroslav | 3 | 16 | Lin, Ching-Torng | 2 |
| 7 | Rawson, Richard | 3 | 17 | Netter, Patrick | 2 |
| 8 | Doumpos, Michalis | 3 | 18 | Belcher, Sarah | 2 |
| 9 | Weaver, T | 3 | 19 | Saha, Hiranmay | 2 |
| 10 | Giudici, Paolo Stefano | 3 | 20 | Mohaghegh, Zahra | 2 |

Source(s): Web of Science Core Collection.



| Rank | Countries | No of published articles | Rank | Countries | No of published articles |
|------|---------------|--------------------------|------|----------------|--------------------------|
| 1 | China | 210 | 11 | India | 28 |
| 2 | United States | 163 | 12 | Iran | 25 |
| 3 | England | 61 | 13 | Poland | 23 |
| 4 | Australia | 44 | 14 | Saudi Arabia | 22 |
| 5 | Canada | 41 | 15 | Malaysia | 20 |
| 6 | Germany | 39 | 16 | Taiwan | 20 |
| 7 | Spain | 39 | 17 | Brazil | 18 |
| 8 | Italy | 31 | 18 | Pakistan | 17 |
| 9 | South Korea | 30 | 19 | Czech Republic | 16 |
| 10 | France | 28 | 20 | Japan | 14 |

differentiates a bibliometric analysis paper from a standard review paper, because a bibliometrics paper would specifically use the latest development of a specific area of study.

will be visualized as an image of a collaboration network, which can show the frequency of academic collaboration (scholar, country and institutions). In the co-citation network analysis, the journals, articles and authors of a specific research field with the most citation frequency can be found. The higher the citation frequencies of an article, a journal and an author, the more important it is (Small, 2003).



FIGURE 3
Network Visualization Cluster of Institutional Cooperation in the research field of Financial Management. Source(s): VOSViewer.

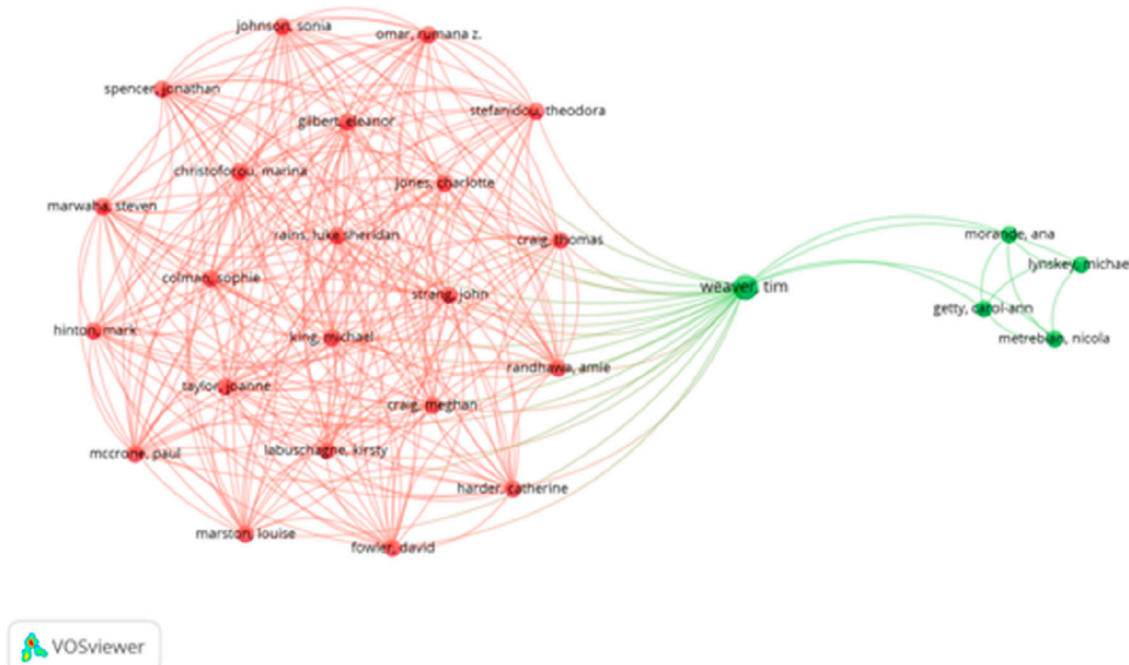


FIGURE 4
Network visualization clusters of prominent authors in the research field of Financial Management. Source(s): VOSViewer.

In this study, authors used VOSviewer software, which often used by scholars (Mustapa et al., 2024; Chen et al., 2022; Zhang and Lin, 2022; Zhang and Quoquab, 2022; Ding and Yang, 2020; Meng et al., 2020).

VOSviewer have their advantages. Generally, VOSviewer has better clarity and user-friendliness than CiteSpace (Markscheffel and Schröter, 2021). The visualization network could be directly created by VOSviewer and authors can use it directly (Markscheffel and Schröter, 2021). In the graph of VOSviewer, analytic objectives are represented by nodes. The bigger a node, the more important it is. The nodes that have high occur frequencies are presented in the center (Markscheffel and Schröter, 2021). In this study, the co-occurring network and co-citation network were analyzed by

VOSviewer. further, the emerging trends and future research directions will be shown by keyword analysis.

Analysis and findings

Research output and their categories

The number of publications about “Financial Management” during 8 years period 2017–2025 is shown in Figure 1. Figure 1 presented the trend in the number of publications on financial management from 2017 to 2025 shows a growing interest in the subject, driven by various global events and economic

TABLE 5 Top 20 Institutions based on the Number of Publication.

| Rank | Institutions name | No of articles published | Citation | Total link strength |
|------|-------------------------|--------------------------|----------|---------------------|
| 1 | Hong Kong Polytech Univ | 6 | 139 | 3 |
| 2 | Univ Vermont | 6 | 10 | 3 |
| 3 | Univ Putra Malaysia | 5 | 129 | 3 |
| 4 | Univ Sydney | 5 | 112 | 2 |
| 5 | Tech Univ Crete | 5 | 103 | 4 |
| 6 | Univ Zilina | 5 | 31 | 1 |
| 7 | Univ Toronto | 5 | 20 | 5 |
| 8 | Univ Florida | 4 | 116 | 6 |
| 9 | Univ Zaragoza | 4 | 103 | 2 |
| 10 | Sejong Univ | 4 | 58 | 2 |
| 11 | Univ Oxford | 4 | 51 | 2 |
| 12 | Harvard Med Sch | 4 | 41 | 4 |
| 13 | Duke Univ | 4 | 38 | 3 |
| 14 | Natl Univ Singapore | 4 | 33 | 1 |
| 15 | Columbia Univ | 4 | 12 | 6 |
| 16 | Wayne State Univ | 4 | 12 | 1 |
| 17 | Univ Calif Los Angeles | 4 | 6 | 7 |
| 18 | Curtin Univ | 4 | 1 | 1 |
| 19 | Tianjin Univ | 3 | 180 | 2 |
| 20 | Univ Pavia | 3 | 175 | 0 |

Source(s): Web of Science Core Collection.

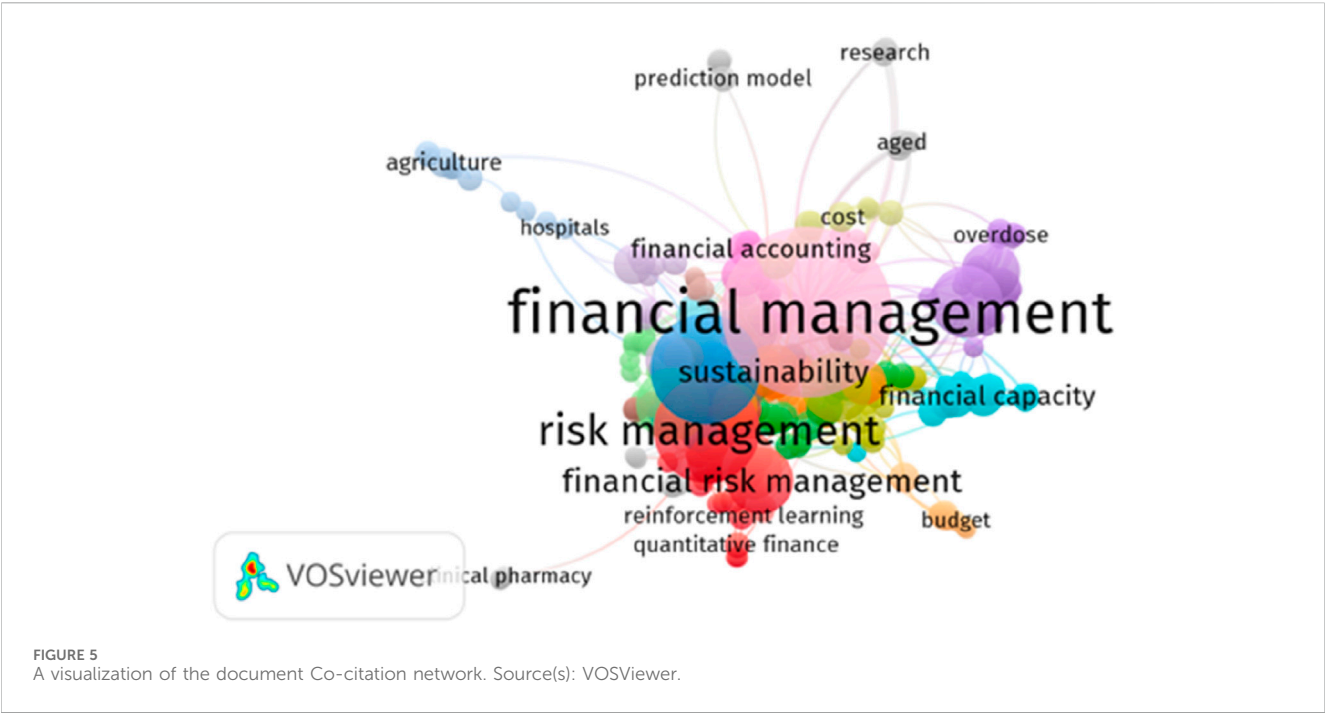


TABLE 6 Top 20 Authors based on the Total Link Strength.

| Rank | Author name | No of article published | Citation | Total link strength |
|------|----------------------|-------------------------|----------|---------------------|
| 1 | Weaver, Tim | 2 | 65 | 26 |
| 2 | Christoforou, Marina | 1 | 19 | 22 |
| 3 | Colman, Sophie | 1 | 19 | 22 |
| 4 | Craig, Meghan | 1 | 19 | 22 |
| 5 | Craig, Thomas | 1 | 19 | 22 |
| 6 | Fowler, David | 1 | 19 | 22 |
| 7 | Gilbert, Eleanor | 1 | 19 | 22 |
| 8 | Harder, Catherine | 1 | 19 | 22 |
| 9 | Hinton, Mark | 1 | 19 | 22 |
| 10 | Johnson, Sonia | 1 | 19 | 22 |
| 11 | Jones, Charlotte | 1 | 19 | 22 |
| 12 | King, Michael | 1 | 19 | 22 |
| 13 | Labuschagne, Kirsty | 1 | 19 | 22 |
| 14 | Marston, Louise | 1 | 19 | 22 |
| 15 | Marwaha, Steven | 1 | 19 | 22 |
| 16 | Mccrone, Paul | 1 | 19 | 22 |
| 17 | Omar, Rumana Z | 1 | 19 | 22 |
| 18 | Rains, Luke Sheridan | 1 | 19 | 22 |
| 19 | Randhawa, Amie | 1 | 19 | 22 |
| 20 | Spencer, Jonathan | 1 | 19 | 22 |

Source(s): Web of Science Core Collection.

developments. Between 2017 and 2019, the number of publications remained relatively low, with minor fluctuations from 58 in 2017 to 51 in 2018 and then an increase to 67 in 2019. This period reflects consistent academic interest without significant external factors influencing research (Aljughaiman et al., 2023).

A major increase in publications occurred between 2020 and 2022, mainly due to the global financial challenges caused by the COVID-19 pandemic (Ho et al., 2023). The uncertainty in financial markets led to a surge in research focusing on financial planning, debt management, and ways to handle financial risks (Aksoy and Yilmaz, 2024). With many businesses and individuals facing financial difficulties, financial management became a crucial topic for both researchers and policymakers (Ingale and Paluri, 2022). In addition to the pandemic's influence, the growing interest in financial technology (FinTech) contributed to the increase in publications between 2020 and 2023 (Ho et al., 2023). Digital transformation in financial services, including the adoption of digital payment systems, blockchain technology, and online banking, became a key area of research (Kwong et al., 2023). This trend aligns with global goals like SDG 8, which focuses on economic growth and employment, and SDG 9, which emphasizes innovation and infrastructure (United Nations, 2015). As more people relied on digital finance during the pandemic, researchers explored how technology could improve financial access and efficiency (Kwong et al., 2023).

From 2022 to 2024, sustainable finance became prominent themes in financial management research (Rehman et al., 2024). There was a growing need to understand how financial tools could support sustainable development (Naeem et al., 2023). This research aligns with SDG 13 on climate action and SDG 12 on responsible consumption, showing that financial management plays a key role in promoting environmentally friendly investments (United Nations, 2015). Even though there was a slight dip in publications in 2023, possibly due to reduced urgency after the pandemic, the number rose again in 2024, increasing at 133 publications. This increase may have been driven by concerns about inflation, rising interest rates, and global political issues affecting the financial world (Aksoy and Yilmaz, 2024).

The sharp drop in January 2025, with only four publications recorded, is due to incomplete data for the year. Overall, the rising trend in financial management research highlights its importance in addressing current global problems. The focus on topics like financial technology, sustainable finance, and economic recovery shows how financial management research supports global goals and contributes to building a more sustainable future (United Nations, 2015). Therefore, more and more researchers worldwide have started focusing on the financial management field. Based on the publication trends and the UN SDGs launch, two development stages can be concluded in this field.

TABLE 7 The largest 20 clusters in financial management.

| Cluster | Keyword clusters | Co-occurrence | Total link strength |
|---------|---------------------------|---------------|---------------------|
| 1 | Financial Management | 120 | 174 |
| 2 | Financial Performance | 51 | 87 |
| 3 | Risk Management | 47 | 62 |
| 4 | Supply Chain Management | 23 | 36 |
| 5 | Financial Incentives | 22 | 51 |
| 6 | Management | 21 | 48 |
| 7 | Financial Risk Management | 19 | 16 |
| 8 | Financial Analysis | 16 | 16 |
| 9 | Contingency Management | 15 | 47 |
| 10 | Sustainability | 13 | 21 |
| 11 | Earnings Management | 12 | 14 |
| 12 | Inventory Management | 10 | 18 |
| 13 | Portfolio Management | 10 | 16 |
| 14 | Financial Literacy | 9 | 17 |
| 15 | Financial Risk | 9 | 11 |
| 16 | Big Data | 8 | 15 |
| 17 | Deep Learning | 8 | 18 |
| 18 | Financial Hedging | 8 | 11 |
| 19 | Financial Sustainability | 8 | 8 |
| 20 | Environmental Management | 7 | 15 |

Source(s): Web of Science Core Collection.

Preparation phase (2017–2025)

In this phase, the focus of researchers on financial management evolved from a preliminary stage to a wide range of discussion. According to the discipline categories, the problem of financial management has been the major concern in this subject. Table 2 shows Top 20 the main discipline categories in this stages, environmental sciences, green sustainable science technology and environmental studies are the main discipline that contribute to this field. Table 3 present the prominent authors of this field. Some scholars have focused on this field, such as Higgins who has the most publications with four articles.

The analysis of collaboration network of financial management

Prominent countries

In the countries/region’s collaboration network at least 85 countries published one article. 59 countries published at least two articles and their density visualization of the country network shown in Figure 2 made by VOSviewer, in which the largest set of connected countries consist of 59 countries. Generally, there is a mature collaboration network between countries. In Figure 2 of collaboration, the bigger circle and font are more important. China, United States, England, Australia, Canada, Germany and Spain are the most prominent countries in the research field of

financial management. China has the most publication with 210 articles, followed by the United States with 163 articles, England with 61 articles, Australia with 44 articles, Germany and Spain with 39 articles, respectively. Table 4 shows the top 20 countries based on the number of publications.

Prominent institutions

In the institution collaboration network, 979 institutions have published one article at least. 141 institution have published at least two articles. Their network visualization of the collaboration network is shown in Figure 3, made by VOSviewer, in which the largest set of connected institutions consist of 141 institutions. Hong Kong Polytech University and University Vermont are the most prominent institutions in the field of financial management with 6 articles. The following are University of Toronto, Tech Uni Crete, Universiti Putra Malaysia, University Sydney and University Zilina (5 articles, respectively). It is noticeable that most institutions are from China which is consistent with the result of analysis of the countries/region collaboration network. 141 institutions have formed a close collaboration network. Moreover, other institutions also have their collaboration network. Generally, the collaboration between institutions worldwide has a medium-scale collaboration network. However, the collaboration between institutions from different countries still need to strengthen (see Figure 4). The top 20 institutions that have the most publications are shown in Table 5.

TABLE 8 Top 20 most cited Journal with co-citation frequency.

| Rank | Journal name | No of articles | No of citation | Total link strength |
|------|--------------------------------------------------------------------|----------------|----------------|---------------------|
| 1 | Journal of Cleaner Production | 11 | 1,030 | 3 |
| 2 | Sustainability | 63 | 757 | 2 |
| 3 | Management Science | 8 | 412 | 3 |
| 4 | International Journal of Production Economics | 8 | 271 | 4 |
| 5 | Journal of Environmental Management | 3 | 267 | 0 |
| 6 | Energy Policy | 2 | 177 | 3 |
| 7 | International Journal of Production Research | 9 | 161 | 5 |
| 8 | Transportation Research Part E-Logistics and Transportation Review | 6 | 160 | 2 |
| 9 | Addiction | 6 | 118 | 3 |
| 10 | European Journal of Operational Research | 8 | 107 | 4 |
| 11 | Annals of Operations Research | 9 | 105 | 0 |
| 12 | Computer Standards and Interfaces | 2 | 103 | 0 |
| 13 | Mathematics | 14 | 94 | 1 |
| 14 | Production Planning and Control | 3 | 85 | 1 |
| 15 | Production And Operations Management | 5 | 84 | 7 |
| 16 | Sensors | 2 | 82 | 0 |
| 17 | Ieee Access | 7 | 75 | 0 |
| 18 | Environmental Science And Pollution Research | 8 | 72 | 3 |
| 19 | Journal Of Intelligent and Fuzzy Systems | 6 | 69 | 1 |
| 20 | Omega-International Journal Of Management Science | 2 | 63 | 2 |

Source(s): Web of Science Core Collection.

Prominent authors

In the author collaboration network, 1704 authors have published one article at least. 62 authors have published at least two articles. Their density visualization of the collaboration network is shown in Figure 5, in which the largest set of connected scholar consists of 5. Figure 4 in the middle cluster shows that the most leading authors are Weaver Tim (61 citations with 26 total link strength). Generally, in the field of financial management, researcher worldwide have formed a certain scale of a collaboration network. However, the collaboration between researchers from different countries and institutions still need to be strengthen. Most collaboration between scholars from the same country and institutions is especially prominent in the collaboration from China and United States. Table 6 presented the top 20 authors based on the number of publications with their institutions and countries.

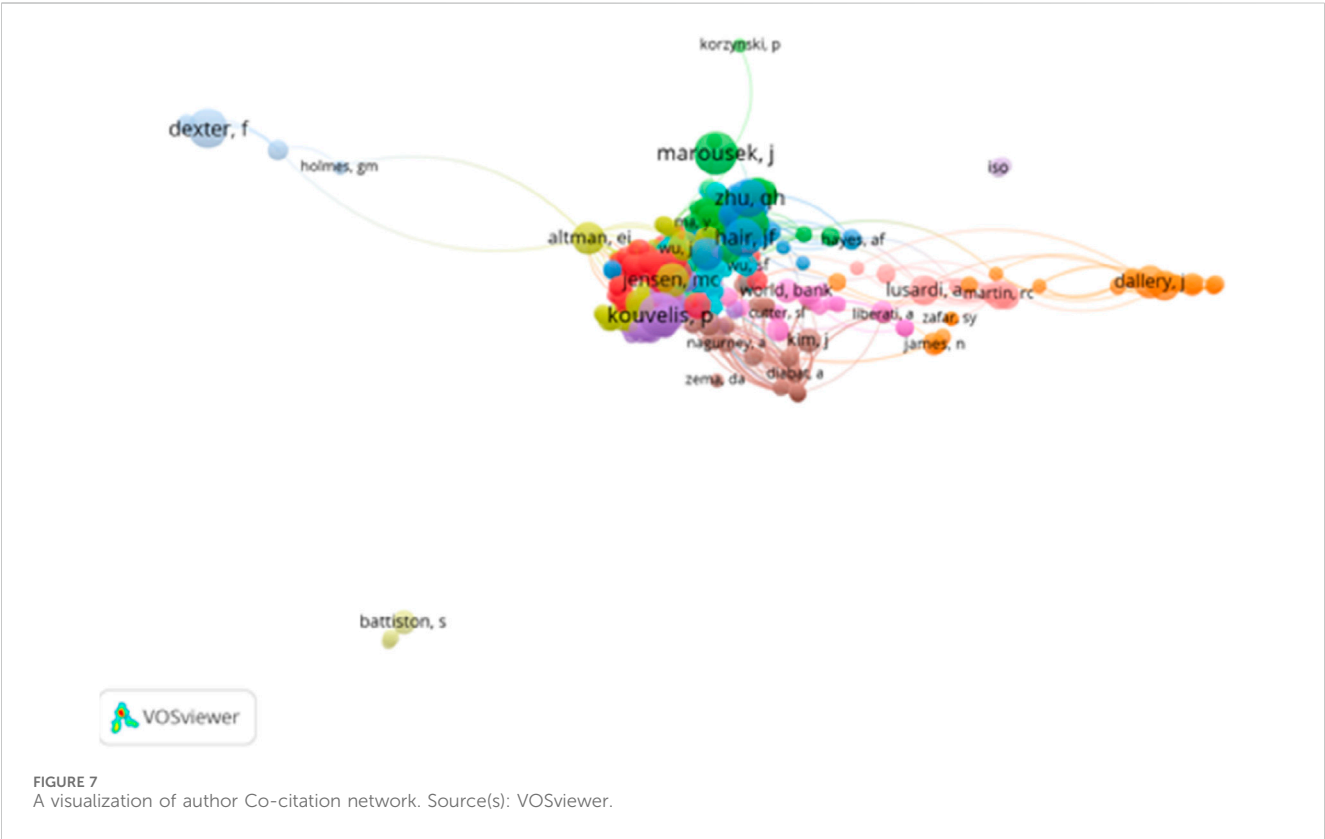
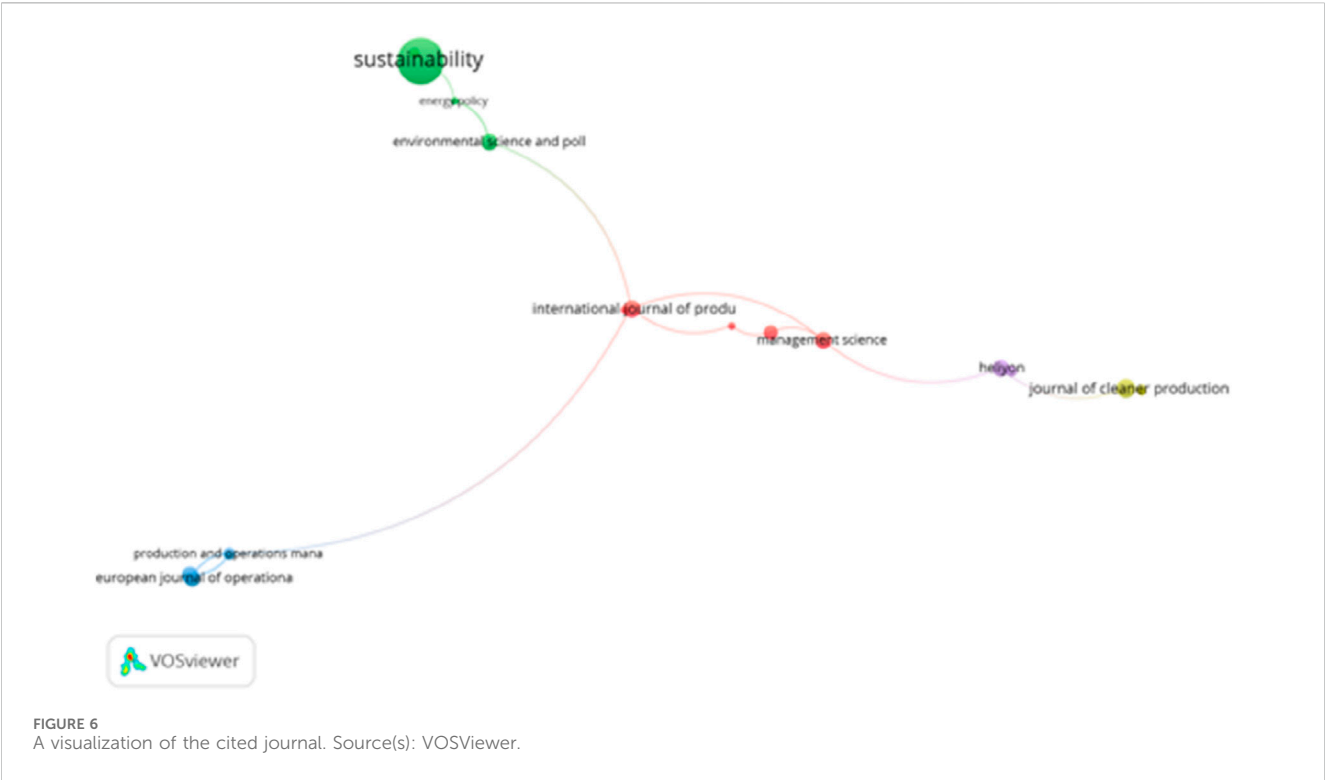
The Co-Citation network of financial management

Document Co-Citation network

Figure 5, generated by VOSviewer, show the document co-citation network, which consisted 24,356 references cited and 1,528 co-citation links between 2017 and 2025. Authors choose

keyword terms to label the clusters. The largest 20 clusters are shown in Table 7. Article co-citation networks can help future researcher directions. The financial management, with 120 co-occurrences citation is the largest cluster. The following cluster are financial performance (51), risk management (47), supply chain management (23), financial incentives (22), management (21), financial risk management (19) and financial analysis (16). The financial management is a good alternative because it represents a core concept that explained the critical process and strategies business, government and individual use to manage their financial resources. The financial management terms are broad but specific enough to capture a wide range of studies and topics, thus making it highly relevant in academic, professional and policy-related study. Cluster 2, financial performance is the newest cluster, which is huge potential research topic for future researchers. The financial performance lead to increase the effectiveness of financial management strategies and decision-making process which have been focused on by more and more scholars.

The journal that provides data prediction got a lot of citations. The most cited journal is shown in Table 8. The journal of Cleaner Production has the most citation. It is systematically estimated that about 1,030 citation has been made as of 2025 and more citation will be made by 2030. The visualization of cited journal by VOSviewer as presented in Figure 6.



Author Co-Citation network

Author co-citation network can find the most contributing authors in a specific field. This study uses VOSviewer to analyze

the network of author co-citation. The minimum number of citations of author is set up at 5, and 443 authors of 18,755 meet the threshold. Figure 7, generated by VOSviewer shows the

TABLE 9 Top 20 most cited authors with Co-citation frequency.

| Rank | Authors name | Co-citation | Total link strength |
|------|---------------|-------------|---------------------|
| 1 | Ades, PA | 5 | 55 |
| 2 | Adland, R | 5 | 54 |
| 3 | Adrian, T | 6 | 28 |
| 4 | Agrawal, A | 6 | 65 |
| 5 | Ahmad, M | 8 | 90 |
| 6 | Albertini, E | 6 | 134 |
| 7 | Alizadeh, AH | 7 | 103 |
| 8 | Allayannis, G | 5 | 91 |
| 9 | Allen, F | 5 | 39 |
| 10 | Almeida, H | 7 | 115 |
| 11 | Altman, EI | 23 | 236 |
| 12 | Amin, SH | 5 | 330 |
| 13 | Anderson, JC | 7 | 123 |
| 14 | Appelbaum, PS | 7 | 91 |
| 15 | Arellano, M | 7 | 104 |
| 16 | Armstrong, JS | 6 | 149 |
| 17 | Arrow, KJ | 7 | 63 |
| 18 | Artzner, P | 6 | 26 |
| 19 | Babich, V | 12 | 185 |
| 20 | Baesens, B | 8 | 141 |

Source(s): Web of Science Core Collection.

author co-citation network, which consists of 443 authors between 2017 and 2025. The top 20 most cited authors with co-citation frequency as shown in Table 9. The author's co-citation network result shows a good co-citation relationship in this research field.

Journal Co-Citation network

To outline the journal contributing to financial management over the last 8 years, the journal co-citation network is shown in Figure 8. The result shows a good co-citation relationship between journal. In total of 10,042 journals and 162 co-citation links were found with the minimum of 20 citations. The top 20 most cited journals with co-citation frequency are shown in Table 10. The journal *Clean Production*, with 515 frequencies is the most cited journal in the financial management field. The following of *International Journal of Production Economics*. Generally, the higher the impact factor, the more citation frequencies a journal has (Fang et al., 2018).

Discussion

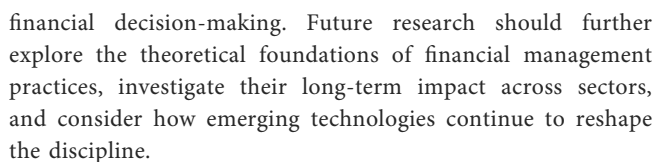
Financial management remains a central area of interest among governments, policymakers, practitioners, and

academic researchers due to its significant role in ensuring economic stability and organizational performance. This study, through a bibliometric analysis using VOSviewer, offers a comprehensive knowledge map that captures the structure and development of financial management research from 2017 to 2025. The analysis highlights that financial management is not only a well-established field but also one experiencing steady growth in research output. One notable finding is the rise of China as the leading country in terms of publication volume, surpassing the United States. This shift may reflect broader changes in global research leadership, increased government investment in higher education and research in China, and the prioritization of financial stability and innovation within national policy frameworks. Such a trend suggests a possible redistribution of influence in the field and calls for further exploration into the institutional and policy drivers behind China's growing dominance in financial management research.

Institutional analysis reveals that The Hong Kong Polytechnic University and the University of Vermont are among the most active institutions contributing to this field. However, while there is evidence of international collaboration, it remains relatively limited and concentrated among specific regions and institutions. Strengthening cross-border and inter-institutional collaboration could promote more diverse perspectives, especially from underrepresented regions, and support the development of globally relevant financial management practices. In terms of author contributions, scholars such as Higgins Stephen, Zopounidis Constantin, Vochozka Marek, and Maroušková Anna have emerged as highly productive researchers. However, the relatively fragmented nature of co-authorship networks indicates that scholarly collaboration is still in need of improvement. Encouraging collaborative projects across institutions and countries could enhance the quality and innovation of financial management research.

The keyword co-occurrence analysis identified financial management, financial performance, risk management, supply chain management, and financial incentives as core areas of focus. The prominence of "financial performance" as a trending topic signals a shift in attention toward measurable outcomes and the practical effectiveness of financial strategies. Additionally, the presence of interdisciplinary themes—such as supply chain and sustainability—suggests an increasing integration of financial management with broader organizational and environmental concerns. The journal co-citation analysis shows that the *Journal of Cleaner Production* plays a leading role in shaping discourse within the field. This finding reflects a growing interest in sustainable financial practices and their alignment with environmental and social responsibility, reinforcing the relevance of financial management in achieving sustainable development goals.

Overall, this study not only maps the landscape of financial management research but also highlights key trends and underexplored areas. The findings suggest several implications: the need for enhanced international collaboration, the growing influence of Asian institutions in global research, and the integration of sustainability and performance metrics in



This study utilizing VOSviewer, fills the research gap by providing a holistic and comprehensive understanding of the research status regarding financial management. The implication of this study can be understood from two perspectives, history and the future. From the historical perspectives, based on the curve publication number, the development of this research are between 2017 and 2025 which can help scholars understand the current research status and the development trends. Besides, this study holistically illustrates the current collaboration network of countries, institutions and scholars, which shows that scholars need to further enhance their collaboration, especially in transnational.

to track their studies. The most contributing journal in this fields, particularly Journal of Clean Production can serve as the most relevant and related source of the literature and a suitable publication platform for scholars. The recent hot topic and/or the keywords can help scholars to find valuable future research directions.

Although this study filled the research gap in bibliometrics studies of financial management research, it only considers English literature. For a better and more comprehensive analysis, future researchers can consider the literature written in other language, such as Spanish, Chinese, Japanese, and more. In addition, bibliometric analysis cannot analyze the research logic and the relationship between variables. Therefore, future studies can utilize narrative or systematic literature reviews to accomplish these objectives. Furthermore, bibliometric analysis depends on the database used and the WoS may lead to biases that favor natural sciences and engineering to the detriment of social sciences (Mongeon and Paul-Hus, 2016). Therefore, future researcher can expand their search to other data source, such as Scopus and Google Scholar. According to the current research trends, on the other hand, this paper calls on scholars to strengthen cooperation and collaboration between different discipline and countries, on the other hand for future research in this field, this study provides

TABLE 10 Top 20 most cite journals with Co-citation frequency.

| Rank | Journal name | Co-citation | Total link strength |
|------|---------------------------------------------------------------------|-------------|---------------------|
| 1 | Journal of Cleaner Production | 515 | 37,904 |
| 2 | International Journal of Production Economics | 344 | 32,113 |
| 3 | European Journal of Operational Research | 320 | 28,774 |
| 4 | Sustainability | 285 | 12,344 |
| 5 | Management Science | 260 | 10,976 |
| 6 | The Journal of Finance | 258 | 7,836 |
| 7 | Expert Systems with Applications | 212 | 15,854 |
| 8 | Journal of Financial Economics | 212 | 6,769 |
| 9 | International Journal of Production Research | 204 | 25,218 |
| 10 | Journal of Operations Management | 188 | 11,852 |
| 11 | Journal of Business Ethics | 182 | 9,282 |
| 12 | Production and Operations Management | 135 | 6,265 |
| 13 | Business Strategy and the Environment | 130 | 6,981 |
| 14 | Annals of Operations Research | 128 | 13,762 |
| 15 | Transportation Research Part E: Logistics and Transportation Review | 124 | 19,013 |
| 16 | Journal of Banking and Finance | 114 | 4,957 |
| 17 | Strategic Management Journal | 109 | 5,375 |
| 18 | Computers and Industrial Engineering | 107 | 25,669 |
| 19 | The Accounting Review | 102 | 3,244 |
| 20 | The Review of Financial Studies | 94 | 3,090 |

Source(s): Web of Science (WoS).

some potential topics for future researchers from different discipline.

Author contributions

WW: Writing – original draft, Software, Visualization, Conceptualization, Formal Analysis. NA: Funding acquisition, Writing – review and editing. AR: Methodology, Conceptualization, Writing – review and editing, Software. HF: Resources, Writing – review and editing. Rabeatul HA: Writing – review and editing. FS: Writing – review and editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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