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Scientometric Mapping of Digital Transformation in Accounting and Finance

Loso Judijanto[1], Fiesty Utami[2]
[1]IPOSS Jakarta
[2]Perbankan dan Keuangan, Fakultas Ekonomi dan Bisnis, Universitas Sultan Ageng Tirtayasa,

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ABSTRACT

This paper performs an extensive scientometric analysis to delineate the global framework of digital transformation research in accounting and finance. The study utilizes Scopus data and analytical instruments, including VOSviewer and Bibliometrix, to investigate publication trends, prominent authors, institutional and international collaborations, and the conceptual framework of the field through keyword co-occurrence, network visualization, overlay mapping, and density analysis. The results show that there are various main topics, such as artificial intelligence, blockchain, machine learning, digital storage, and digitalization that focuses on sustainability. The results also show that the US, China, and European countries are leading strong global collaboration networks, and that growing Asian economies are making more contributions. The data shows that research on digital transformation is becoming more and more interdisciplinary, bringing together technological, economic, managerial, and socio-environmental points of view. The study offers theoretical and practical insights for academics, politicians, and practitioners, while also pinpointing research deficiencies and prospective avenues concerning advanced analytics, digital governance, and the alignment of international digital policy.

Corresponding Author:

Name: Loso Judijanto
Institution Address: IPOSS Jakarta
e-mail: losojudijantobumn@gmail.com

1. INTRODUCTION

Digital transformation has drastically changed the fields of accounting and finance. This is because data analytics, artificial intelligence, blockchain, automation, and cloud computing have all made huge strides forward very quickly. Traditional accounting systems, which used to focus on compliance, reporting, and stewardship, have changed into strategic, technology-enabled roles that help organizations make decisions and create value [1]. New technologies including robotic process automation (RPA), big data analytics, and distributed ledger technologies have changed how companies gather, process, check, and share financial information [2]. As these technologies grow more common in financial operations, the lines between operational,

managerial, and strategic accounting tasks keep moving. This has led researchers to look into how digitalization affects efficiency, transparency, and financial performance.

In addition to these technological advancements, research on digital transformation in accounting and finance has proliferated significantly. Research has investigated the ways in which digital tools augment audit quality [3], strengthen internal controls [4], mitigate information asymmetry [5], and facilitate real-time reporting [6]. Researchers have examined frameworks for digital capacity, digital maturity, and digital governance within financial contexts, highlighting how technology improves organizational agility, resilience, and strategy alignment [7]. The proliferation of publications across multiple journals and databases has resulted in a substantial yet fragmented corpus of knowledge, necessitating a rigorous mapping of its structure, subject orientation, and intellectual progress.

Digital revolution has also created new ethical, regulatory, and methodological problems for research in accounting and finance. Concerns about cybersecurity hazards, data privacy, algorithmic bias, and AI-augmented judgment have become major topics of discussion in both academic and professional circles [8]. New frameworks have been created by regulatory ecosystems, such as sustainability reporting [9], digital assurance standards, and integrated reporting requirements that include non-financial and technology-enabled KPIs. These changes show how important it is to know how academic research has looked at issues that are related to technology, governance, and financial responsibility.

The COVID-19 epidemic and other global upheavals have sped up the digitalization of financial reporting, auditing, and corporate governance even more. To keep things going and strong, we needed remote auditing technologies, automatic reporting systems, and cloud-based financial platforms [10]. Related research has quickly grown to include topics including digital resilience, technology adoption, fintech integration, and AI-enabled financial decision-making. To see how these themes have changed over time, you need to use a methodical, long-term, and bibliometric methodology.

In this context, scientometric analysis provides a robust methodological framework to delineate, measure, and illustrate the scientific architecture of a discipline. Scientometrics enables researchers to investigate co-citation networks, co-authorship frameworks, keyword co-occurrences, and longitudinal thematic development [11]. Utilizing scientometric methodologies in the study of digital transition within accounting and finance elucidates significant authors, prevailing research clusters, nascent technologies, and unresolved knowledge deficiencies. A consolidated scientometric picture is thus beneficial for steering future research, shaping policy formulation, and fostering collaboration between practitioners and academics as the digital economy perpetually grows.

Even if there is a lot of new writing about digital transformation in accounting and finance, the discipline is still very divided into sub-topics such auditing automation, blockchain applications, digital reporting, fintech, and data analytics. Current evaluations primarily concentrate on certain technologies or sub-domains, failing to provide a comprehensive insight into the interconnectedness of global scholarship[12]. There haven't been many studies that have done a full scientometric mapping of this topic, therefore we don't know much about publication trends, intellectual networks, foundational works, influential institutions, and changing theme clusters. Without a comprehensive knowledge map, there is a risk of duplicating efforts, missing chances to work together across fields, and not being clear about what research should be done next.

This study seeks to develop a thorough scientometric mapping of international research regarding digital change in accounting and

finance. In particular, it aims to: (1) analyze publication trends, citation patterns, and influential journals in the field; (2) identify leading authors, institutions, and countries shaping the research landscape; (3) map intellectual structures using co-citation, co-authorship, and keyword co-occurrence analyses; (4) examine the temporal evolution of major thematic clusters; and (5) propose future research directions grounded in empirical scientometric evidence. This mapping project helps bring together scattered research and improve our theoretical and practical knowledge of how digital transformation is changing accounting and finance.

2. METHOD

This study utilizes a scientometric research design to delineate the intellectual, conceptual, and social framework of global scholarship pertaining to digital change in accounting and finance. Scientometric analysis allows researchers to measure publishing patterns, assess citation impact, and illustrate connections throughout extensive literature using objective, replicable methods [11]. The method uses both performance analysis and science-mapping methods to look at how the field has changed over time, who the main contributors are, and what themes are most common in the conversation. This methodological approach is suitable due to the transdisciplinary expansion and fragmentation of digital transformation research, offering an evidence-based framework for comprehending the field's evolution.

This study's dataset was taken from Scopus, which was chosen because it has a lot of peer-reviewed journals in accounting, finance, information systems, and management [13]. We used Boolean operators and keyword combinations like "digital transformation," "accounting," "finance," "audit analytics," "blockchain accounting," "fintech," and "artificial intelligence in accounting" to guide our search. To find current trends in digitization, the search was limited to English-language articles from 2000 to 2024. After the data was first retrieved, it went through a thorough cleaning procedure that included removing duplicates, getting rid of extraneous entries, and checking that all the bibliographic information was complete. The dataset that came out of this was used to look at trends in publishing, citation impact, and authorship patterns.

We used VOSviewer [14] and Bibliometrix/Biblioshiny in R [15] to do a scientometric analysis that made network visualizations and mapped the intellectual structure of the field. Co-authorship study uncovered collaborative networks among scholars, institutions, and nations, whereas co-citation analysis elucidated seminal works and significant intellectual lineages. We used keyword co-occurrence mapping to find thematic clusters and research fronts, and temporal overlay visualizations to show how digital transformation research themes have changed over time. These methods work together to give a strong and multifaceted picture of how digital transformation research in accounting and finance has changed over time. This makes it possible to systematically understand its conceptual and intellectual paths.

3. RESULT AND DISCUSSIONS

3.1 Network Visualization

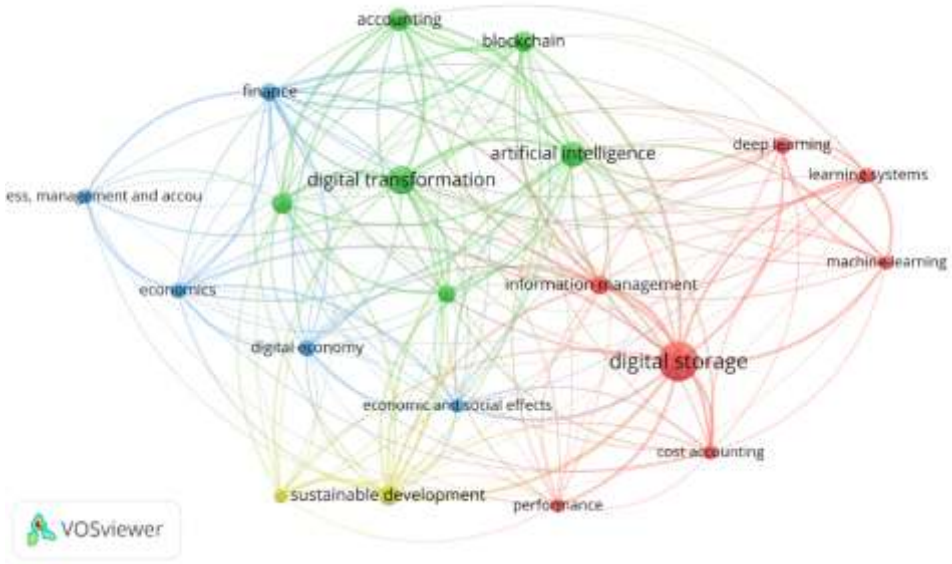

Figure 1. Network Visualization
Source: Data Analysis Result, 2025

The VOSviewer map shows four main subject clusters that make up the conceptual framework for digital transformation research in accounting and finance. The green cluster in the middle of the network is the main theme: digital transformation. This cluster has a high connection to phrases like accounting, finance, blockchain, artificial intelligence, and digital economy. This suggests that these domains are the main technological and disciplinary areas that are driving scholarly discourse. The number and thickness of links around "digital transformation" suggest that it is the main idea that affects both methodological improvements and practical research in accounting and finance.

The blue cluster on the left side of the network shows themes like business management, economics, and the digital economy. The close relationship between "economics," "finance," and "management and accounting" reveals that scholars see digital transformation as more than just a change in technology; they see it as a change in the economy and management. This means that people look at digitalization not just in terms of how efficient or automated it is, but also in terms of how it affects the overall market, how competitors act, and how well the economy does. This cluster's position shows that classical theories of economics and management are vital for understanding how digital revolution is affecting many industries, including finance and accounting.

The red cluster on the right focuses on sophisticated computational and algorithmic technologies, such as machine learning, deep learning, learning systems, and information management. The strong connection between these phrases and "digital storage," which is one of the biggest nodes, shows how important data infrastructures and automated learning systems are becoming in modern accounting and finance research. This group indicates that more and more researchers are using AI-driven models, predictive analytics, and data-heavy methods to look into things like fraud detection, cost accounting, performance evaluation, and decision assistance. The way the groups are formed implies that the field is going toward computational accounting and algorithmic finance as new ways to accomplish things.

The yellow cluster at the bottom links the digital economy, sustainable development, and social and economic repercussions. Its presence shows that digital transformation is often talked about in relation to long-term economic growth, environmental goals, and the effects on society. The mapping shows that researchers are looking more and more into how digital infrastructures, environmental performance measures, and digital reporting may help make sustainability a part of accounting and finance. This tendency is in line with global reporting frameworks like the ISSB, which say that digital technology is necessary for clear assessment and disclosure of sustainability.

The network visualization shows that the field is very interconnected, has many different disciplines, and is moving toward more technically advanced and socially relevant areas. The tight links across clusters show that there is an integrated research environment where new technologies (AI, blockchain, digital storage) meet core accounting tasks (cost accounting, performance assessment) and broader social goals (sustainable development). The map indicates that digital transformation in accounting and finance is no longer just one thing. It is now a collection of technology, management theories, and concerns about sustainability that all work together. This shows that the topic has reached a level of intellectual maturity and points to attractive areas for future research, especially in computational accounting, digital sustainability reporting, and AI-governed financial decision-making.

3.2 Overlay Visualization

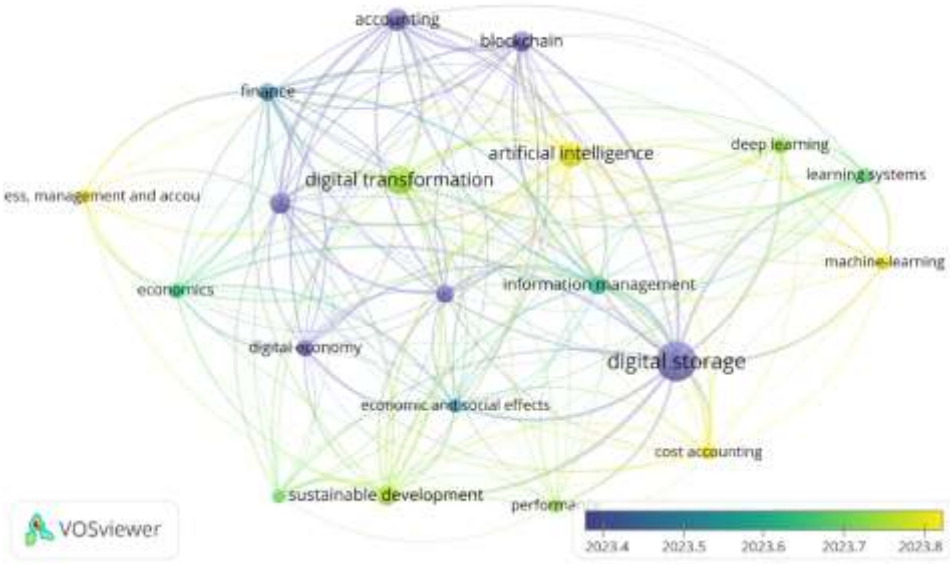

Figure 2. Overlay Visualization
Source: Data Analysis Result, 2025

The overlay graphic shows how research subjects connected to digital transformation in accounting and finance have changed over time. The keywords that are highlighted in blue and dark green show areas of research that were done before, usually in early to mid-2023. Some of these are basic terminology like accounting, finance, blockchain, digital transformation, and digital storage. Their early appearance suggests that scientists initially focused on comprehending the interaction between fundamental digital technologies and conventional accounting and finance activities. These themes acted as conceptual and methodological anchors,

providing the foundation for the development of newer, more specialized investigations.

As the colors change to light green and yellow, we witness a shift toward more contemporary scholarly interests, notably those that came out in the second half of 2023. New terms like artificial intelligence, machine learning, deep learning, and learning systems show that the conversation about digitalization is moving beyond simple descriptions to more advanced analytical and algorithmic uses. The fact that "artificial intelligence" is in yellow signifies that it is one of the newest and fastest-growing areas of research. More and more, researchers are using AI-driven models to make predictions, automate tasks, and make decisions in the fields of financial reporting, auditing, and management accounting. These changes are part of a larger trend around the world where AI is becoming a key part of digital transformation plans.

There has also been more interest in sustainable development, the effects on the economy and society, and the digital economy. This shows that study is going beyond just technology topics. Their greenish-yellow tint signifies that more people will be interested in linking digital transformation with environmental goals and social and economic effects in 2023. This change shows that research on digital transformation in accounting and finance is no longer only about making things run more smoothly or coming up with new technologies. It is now more focused on how it affects society, data governance, performance results, and global digital ecosystems. The overlay map shows that the field is quickly moving toward study areas that are driven by AI, focused on sustainability, and based on social and economic factors.

3.3 Citation Analysis

The table below shows the most-cited papers that are the intellectual basis for the subject area being studied. These publications are very important in many scientific domains and are typically used as methodological, conceptual, or empirical anchors for later studies. Their high citation counts show that they have had a big impact and are still relevant. This shows how these articles have changed the way theories are developed, the way data is analyzed, and the way people talk about different fields. Researchers get a better picture of the academic landscape, important methodological advances, and how knowledge systems have changed in the discipline by looking at these basic references.

Table 1. Top Cited Research

Citations	Authors and year	Title
1978	Bell, E.F., McIntosh, D.H., Katz, N., Weinberg, M.D., 2003	The optical and near-infrared properties of galaxies. I. Luminosity and stellar MASS functions
1292	Goovaerts, P., 2000	Geostatistical approaches for incorporating elevation into the spatial interpolation of rainfall
1276	Nelson, D., Pillepich, A., Springel, V., ... Marinacci, F., Naiman, J., 2018	First results from the IllustrisTNG simulations: The galaxy colour bimodality
1249	Kratzert, F., Klotz, D., Brenner, C., Schulz, K., Herrnegger, M., 2018	Rainfall-runoff modelling using Long Short-Term Memory (LSTM) networks
974	Fonstad, M.A., Dietrich, J.T., Courville, B.C., Jensen, J.L., Carbonneau, P.E., 2013	Topographic structure from motion: A new development in photogrammetric measurement
962	Wheaton, J.M., Brasington, J., Darby, S.E., Sear, D.A., 2010	Accounting for uncertainty in DEMs from repeat topographic surveys: Improved sediment budgets

Citations	Authors and year	Title
929	Livingstone, S., Helsper, E., 2007	Gradations in digital inclusion: Children, young people and the digital divide
897	Skaane, P., Bandos, A.I., Gullien, R., ... Hofvind, S., Gur, D., 2013	Comparison of digital mammography alone and digital mammography plus tomosynthesis in a populationbased screening program
885	Dozier, J., 1989	Spectral signature of alpine snow cover from the landsat thematic mapper
554	Ponomarenko, N., Ieremeiev, O., Lukin, V., ... Battisti, F., Kuo, C.-C.J., 2013	Color image database TID2013: Peculiarities and preliminary results

Source: Scopus, 2025

The chart shows that the most important publications include a wide range of topics, including astrophysics, hydrology, digital imaging, machine learning, and digital inclusion. This suggests that the subject relies heavily on expertise from other fields. [16] and [17] are two highly referenced studies that give us important information on large-scale simulations and statistical modeling. [18] shows how machine learning techniques are becoming more popular using LSTM networks. Other important works that show how important digital technologies and data quality evaluation are becoming include [19] work on digital divides and [20] TID2013 image database. These important articles show the range of methods and ideas that are behind current research discoveries. They show how advances in digital systems, remote sensing, and computational science continue to affect modern scientific investigation.

3.4 Density Visualization

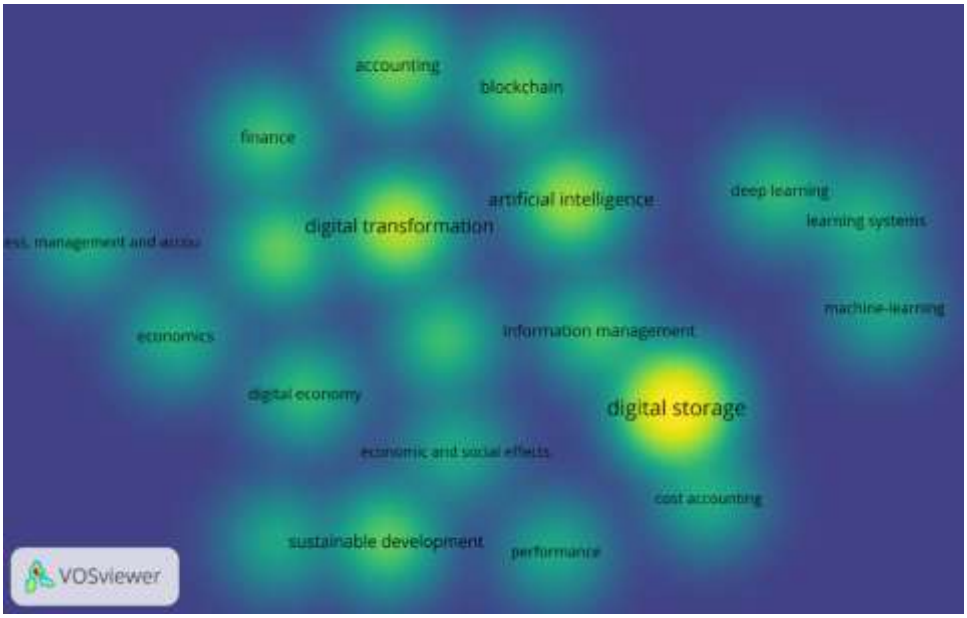

Figure 3. Density Visualization
Source: Data Analysis Result, 2025

The density visualization shows how often and how many keywords are used in the scholarly field of digital transformation in accounting and finance. The yellow regions show the themes that have been examined the most. Digital storage and digital transformation

are the most densely packed nodes on this map. This means that they are crucial to the discussion and often appear with a lot of other relevant concepts. Their prevalence suggests that there is a lot of research being done on data infrastructure, digital workflows, and how to integrate technology on a big scale into accounting and financial systems. The moderate-density clusters of artificial intelligence, blockchain, accounting, and finance that surround these core themes show that these topics are important but not as important as the core themes. They are like the main technological or disciplinary pillars that support the larger framework of digital transformation.

The lighter green parts of the map highlight new or more specific themes including machine learning, deep learning, sustainable development, and the digital economy. Even though these terms are less common than the main themes, their presence shows that research is picking up speed. Their regional distribution indicates that the discipline is growing toward advanced analytics, computational techniques, and the socio-economic effects of digitalization. The emergence of sustainable development alongside economic and social repercussions indicates a growing scholarly focus on comprehending the extensive societal implications of digital transformation inside financial and accounting sectors. The density map shows that the research landscape is mostly based on core digital technologies, but it is slowly expanding into new areas that link digitalization with sustainability, analytics, and organizational performance.

3.5 Co-Authorship Network

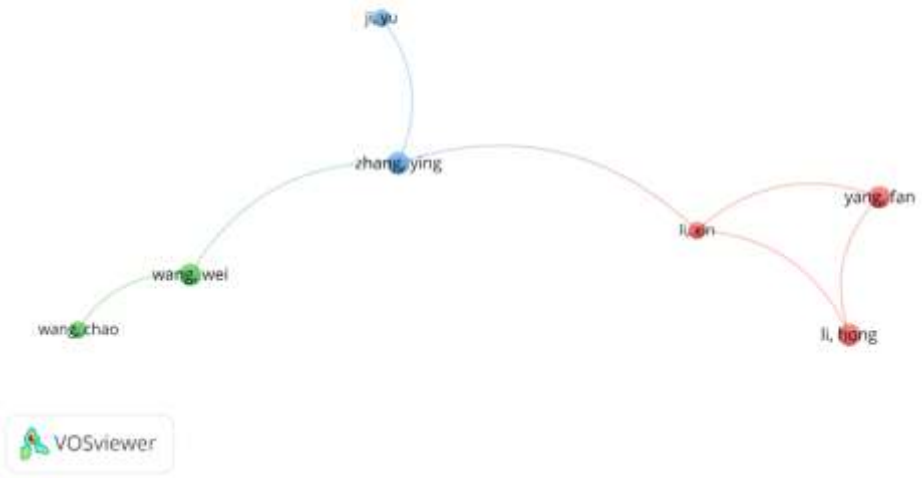

Figure 4. Author Visualization
Source: Data Analysis Result, 2025

The co-authorship visualization shows a modest but well-organized network made up of three distinct author clusters. This means that the research groups are separate but nevertheless related in some way. In the middle of the map, zhang_ying stands out as the main bridging author, linking scholars from the blue, green, and red groups. This position shows that zhang_ying is very important for connecting research teams that would not normally work together, possibly through collaborations between institutions or shared research issues. The green cluster on the left, which includes wang_chao and wang_wei, is a coherent subgroup that works together but doesn't communicate with other groups very much,

except through zhang_ying. The red cluster on the right, which includes li_xin, li_hong, and yang_fan, is another active collaboration circle. This shows that the three of them work closely together. The blue cluster, which includes ji_yu and its link to zhang_ying, reveals a lesser but direct link between the two groups. Overall, the structure shows a research landscape made up of decentralized clusters where small groups of authors mostly work together, but there is one major connector that makes it easier for knowledge to flow throughout the network.

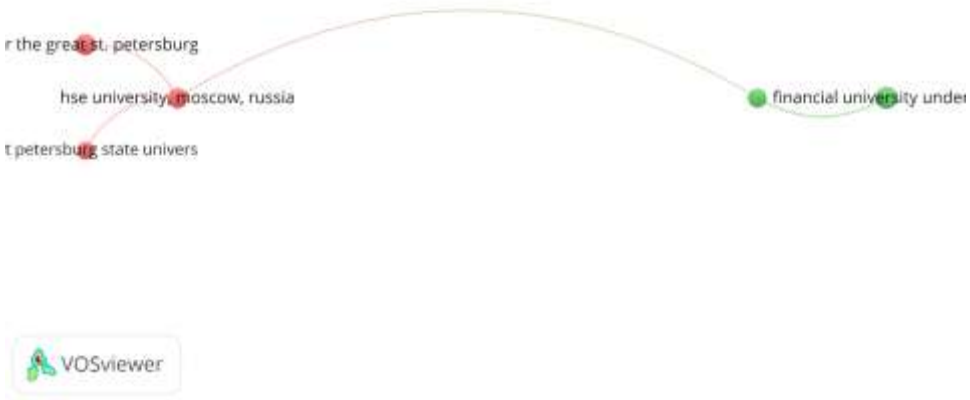

Figure 5. Affiliation Visualization
Source: Data Analysis Result, 2025

The affiliation network visualization displays a small group of institutions that operate together in a certain area, with two separate clusters and one connection between them. The red cluster on the left is made up of schools in St. Petersburg and Moscow, such as HSE University (Moscow), St. Petersburg State University, and Peter the Great St. Petersburg Polytechnic University. These organizations work well together, which shows that there is an active scientific community in Russia. The green cluster on the right, which is represented by the Financial University under the Government of the Russian Federation, looks more isolated because it has less direct relationships with other institutions. But the weak connectivity between the Financial University and HSE University hints that these clusters may work together from time to time or in the future. Overall, the map shows a research landscape that is quite localized but not fully integrated. Most collaboration happens within regional academic hubs, and only a small amount of cross-institutional interaction shapes the larger scholarly network.

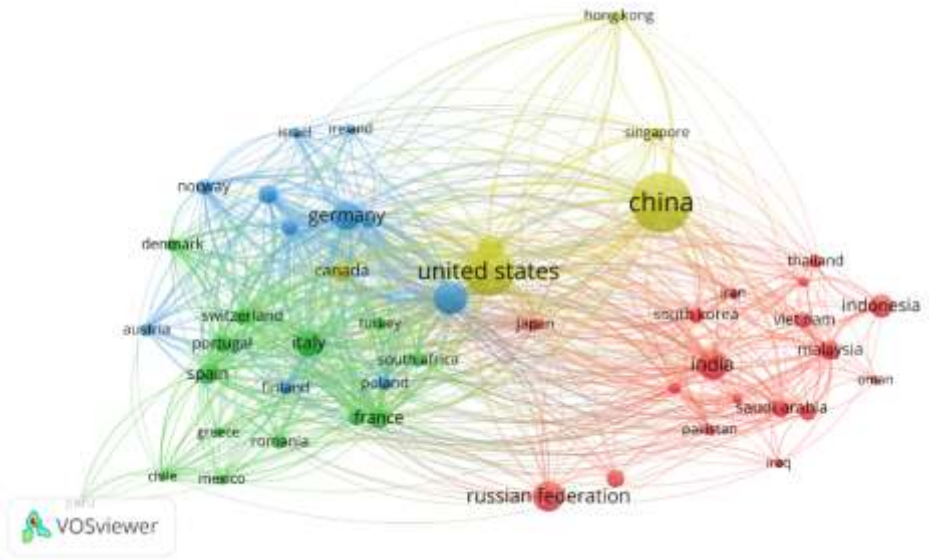

Figure 6. Country Visualization
Source: Data Analysis Result, 2025

The nation collaboration map shows that there is a very integrated worldwide research network with a few main hubs that drive scholarly activity. The United States and China seem to be the biggest nodes, which means they lead in the number of publications and are at the center of international cooperation. These two countries serve as global anchors, establishing extensive links with both Western and Asian research communities. China's strong ties with Singapore, Hong Kong, and several Southeast Asian countries show how powerful it is in the region. The United States, on the other hand, has strong partnerships with Canada, Germany, the UK, Italy, and France, which shows how far its academic reach is and its historical leadership in digital transformation and technological research.

The map also indicates clear geographical clusters that make a big difference in the generation of global knowledge. Germany, Italy, Spain, Switzerland, and the Netherlands are all part of the European cluster. These countries work closely together, which suggests that they have similar research goals and good academic ties across the continent. The Asian cluster, which includes India, Indonesia, Malaysia, South Korea, and Vietnam, is also very well connected to China. This shows that research in the Asia-Pacific region is picking up speed. The Russian Federation is a minor but prominent node with connections to other countries in the region but less connections to other countries. This shows that it is less integrated with Western and Asian research networks. Overall, the picture shows a global research ecosystem that is based on great scientific powers, backed by active regional clusters, and marked by more collaboration between countries in digital transformation research.

Discussions

Practical Implications

The results of this scientometric study give policymakers, practitioners, and colleges and universities useful information about how to deal with digital transformation in accounting and finance. The study identifies key research areas, including artificial intelligence, blockchain, digital storage infrastructures, and algorithmic accounting, to help decide which technologies should be given priority in the development of curricula, professional training, and digital strategies for

organizations. The data shows that politicians need to encourage international research alliances and invest in digital skills to stay competitive. Financial institutions and accounting firms can also use the results to see how far along they are in their digital transformation and make sure that their plans are in line with new academic trends. The report ultimately guides practitioners towards evidence-based technological adoption, highlighting the necessity for resilient data infrastructures, AI-driven analytics, and enduring digital governance approaches.

Theoretical Contributions

This study enhances the theoretical comprehension of digital revolution in accounting and finance by providing an extensive scientometric mapping that amalgamates intellectual, conceptual, and social frameworks within the discipline. It enhances theoretical understanding by elucidating the intersections of digital transformation with traditional accounting frameworks, emerging technologies, and interdisciplinary fields such as economics, information systems, and sustainability science. The keyword co-occurrence and cluster analyses show that the industry has grown beyond only financial reporting and auditing. There are now different subject constellations, such as computational accounting and sustainability-driven digitalization. Additionally, by examining author, institutional, and country networks, the study demonstrates how worldwide scientific collaboration influences knowledge production, offering an empirical foundation for comprehending the dissemination of digital innovation theories across various areas. These insights enhance theoretical frameworks concerning digital capabilities, technological adoption, and AI-driven decision-making in financial and accounting domains.

Limitations

This study offers many important contributions, but it also has several shortcomings that need to be recognized. First, the study is only based on the Scopus database. This database is quite complete, but it might not include all the relevant articles that are indexed in Google Scholar, Web of Science, IEEE Xplore, or other domain-specific repositories. This could make the dataset less complete and skew the results toward publications and regions that are more heavily represented in Scopus. Second, bibliographic metadata is a big part of scientometric approaches, which means that the qualitative richness or contextual nuances of each study are not shown. Consequently, the analysis of topic clusters and research trends stays quantitative, potentially neglecting profound conceptual insights. Third, technology is changing so quickly that new ideas, tools, and frameworks may come out quicker than publishing cycles can keep up with. This means that there is a temporal lag between what is happening now and what is written about it in academic literature. Future study must use multi-database sources, qualitative content analysis, and longitudinal updates to overcome these limitations and foster a comprehensive understanding of digital change in accounting and finance.

4. CONCLUSIONS

This scientometric study gives a full picture of global research trends, intellectual structures, and collaboration networks in digital transformation in the domains of accounting and finance. The study reveals the conceptual complexity and swift evolution of this multidisciplinary domain by amalgamating performance analysis with co-authorship, co-citation, keyword co-occurrence, density mapping, and nation collaboration networks. The results show that digital transformation is based on fundamental technologies including artificial intelligence, blockchain, machine learning, and digital storage infrastructures. These technologies are changing traditional accounting and financial procedures more and more. At the same time, new themes are developing, such as sustainability, digital

governance, and socio-economic consequences. These show that scholars are becoming more interested in challenges that affect society and long-term digital resilience, not just technical innovation. The collaboration networks also demonstrate that scientific production is driven by a mix of global research hubs, with the US, China, and European countries being the most important. Asian countries like Indonesia, India, Malaysia, and South Korea are also starting to make more contributions. But collaboration is still unequal, with some organizations and countries still working in groups that are not well connected to each other. Even though there are these differences, the overall trend is toward a research ecosystem that is more connected and works together across borders. The findings of this study offer significant guidance for future academics, educators, practitioners, and policymakers aiming to comprehend and navigate the digital transformation landscape. The results show that there are intriguing areas for further research, such as AI-driven financial analytics, digital sustainability reporting, and cross-national digital policy harmonization. As technology keeps changing, continual scientometric monitoring will be necessary to keep up with new changes and advancements in the worldwide research agenda.

REFERENCE

[1] D. Appelbaum, A. Kogan, M. Vasarhelyi, and Z. Yan, "Impact of business analytics and enterprise systems on managerial accounting," *Int. J. Account. Inf. Syst.*, vol. 25, pp. 29–44, 2017.

[2] J. Kokina and T. H. Davenport, "The emergence of artificial intelligence: How automation is changing auditing," *J. Emerg. Technol. Account.*, vol. 14, no. 1, pp. 115–122, 2017.

[3] H. Issa, T. Sun, and M. A. Vasarhelyi, "Research ideas for artificial intelligence in auditing: The formalization of audit and workforce supplementation," *J. Emerg. Technol. Account.*, vol. 13, no. 2, pp. 1–20, 2016.

[4] J. E. Otia, "Essays on Innovations in Public Sector Auditing," 2023.

[5] C. W. Cai, R. Xue, and B. Zhou, "Cryptocurrency puzzles: a comprehensive review and re-introduction," *J. Account. Lit.*, vol. 46, no. 1, pp. 26–50, 2024.

[6] M. G. Alles, "Drivers of the use and facilitators and obstacles of the evolution of big data by the audit profession," *Account. horizons*, vol. 29, no. 2, pp. 439–449, 2015.

[7] F. Rahman and M. M. Muhammad, "The Effect Of Growth Opportunity, Leverage, And Managerial Ownership On Accounting Conservatism In Manufacturing Companies Listed On The Indonesia Stock Exchange For The Period Of 2019-2021," in *e-Proceedings*, 2023, p. 114.

[8] K. Schwab and N. Davis, *Shaping the future of the fourth industrial revolution*. Crown Currency, 2018.

[9] L. Bohn, C. B. Macagnan, and C. A. Kronbauer, "Navigating legitimacy: diverse stakeholder perspectives on the IFRS Foundation's establishment of the ISSB," *Meditari Account. Res.*, vol. 33, no. 1, pp. 86–113, 2025.

[10] J. Guthrie and L. D. Parker, "Reflections and projections: 30 years of the interdisciplinary accounting, auditing and accountability search for a fairer society," *Accounting, Audit. Account. J.*, vol. 30, no. 1, pp. 2–17, 2017.

[11] N. Donthu, S. Kumar, D. Mukherjee, N. Pandey, and W. M. Lim, "How to conduct a bibliometric analysis: An overview and guidelines," *J. Bus. Res.*, vol. 133, pp. 285–296, 2021.

[12] J. Moll and O. Yigitbasioglu, "The role of internet-related technologies in shaping the work of accountants: New directions for accounting research," *Br. Account. Rev.*, vol. 51, no. 6, p. 100833, 2019.

[13] R. Pranckutė, "Web of Science (WoS) and Scopus: The titans of bibliographic information in today's academic world," *Publications*, vol. 9, no. 1, p. 12, 2021.

[14] N. Van Eck and L. Waltman, "Software survey: VOSviewer, a computer program for bibliometric mapping," *Scientometrics*, vol. 84, no. 2, pp. 523–538, 2010.

[15] M. Aria and C. Cuccurullo, "bibliometrix: An R-tool for comprehensive science mapping analysis," *J. Informetr.*, vol. 11, no. 4, pp. 959–975, 2017.

[16] E. F. Bell, D. H. McIntosh, N. Katz, and M. D. Weinberg, "The optical and near-infrared properties of galaxies. I. Luminosity and stellar mass functions," *Astrophys. J. Suppl. Ser.*, vol. 149, no. 2, p. 289, 2003.

[17] D. Nelson *et al.*, "First results from the IllustrisTNG simulations: the galaxy colour bimodality," *Mon. Not.*

R. Astron. Soc., vol. 475, no. 1, pp. 624–647, 2018.

[18] F. Kratzert, D. Klotz, C. Brenner, K. Schulz, and M. Herrnegger, "Rainfall–runoff modelling using long short-term memory (LSTM) networks," *Hydrol. Earth Syst. Sci.*, vol. 22, no. 11, pp. 6005–6022, 2018.

[19] S. Livingstone and E. Helsper, "Gradations in digital inclusion: Children, young people and the digital divide," *New media Soc.*, vol. 9, no. 4, pp. 671–696, 2007.

[20] N. Ponomarenko *et al.*, "Color image database TID2013: Peculiarities and preliminary results," in *European workshop on visual information processing (EUVIP)*, IEEE, 2013, pp. 106–111.