APPLICATION OF ARTIFICIAL INTELLIGENCE IN ACCOUNTING AND FINANCE: REVIEW AND BIBLIOMETRIC ANALYSIS

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Abstract

Artificial Intelligence (AI) applications in Accounting and Finance garnered attention and a significant research interest. Although recent years have shown a descent in publication volume. The type of research is qualitative data using bibliometric analysis of the application of Artificial Intelligence (AI) in Accounting and Finance from 2021 to 2024, using data from scholarly articles the study employs bibliometric methods including citation analysis, publication trends, and network visualization using VOSviewer and Publish or Perish (PoP) Software. This analysis identifies the top 10 publishers in Artificial Intelligence (AI) in Accounting and Finance. Elsevier with 244 articles, and Springer with 117 articles. MDPI with 65 articles, Emerald with 64 articles. Wiley Online Library with 53 articles, Taylor & Francis with 52 articles, Sage Publications with 24 articles, and IEEE with 21 articles. CEEOL and ResearchGate with 19 articles each. These publishers have made significant contributions to advancing AI research in this field in recent years. Future research should analyze factors influencing the publication descent and explore innovative AI solutions to financial inclusion challenges.

***Keywords**: Accounting, Artificial Intelligence (AI), Bibliometric Analysis, Finance*

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INTRODUCTION

Artificial Intelligence (AI) development in Indonesia has been gaining momentum in recent years, reflecting a growing interest and investment in advanced technologies across various sectors. Government initiatives and private sector partnerships have played pivotal roles in fostering AI innovation and adoption within the country. Companies in Indonesia are increasingly leveraging AI technologies to enhance operational efficiency, improve customer experiences, and drive innovation in traditional industries such as finance, healthcare, and manufacturing. Key drivers of AI development in Indonesia include a young and digitally perceptive population, rising internet penetration rates, and supportive government policies aimed at promoting digital transformation. Startups and tech firms are actively developing AI solutions tailored to local needs, ranging from language processing and natural language understanding to image recognition and predictive analytics. Challenges persist, however, including the need for skilled AI talent, infrastructure development, and addressing ethical considerations such as data privacy and security. Despite these challenges, Indonesia's AI ecosystem continues to evolve, with promising opportunities for further growth and innovation in the coming years.

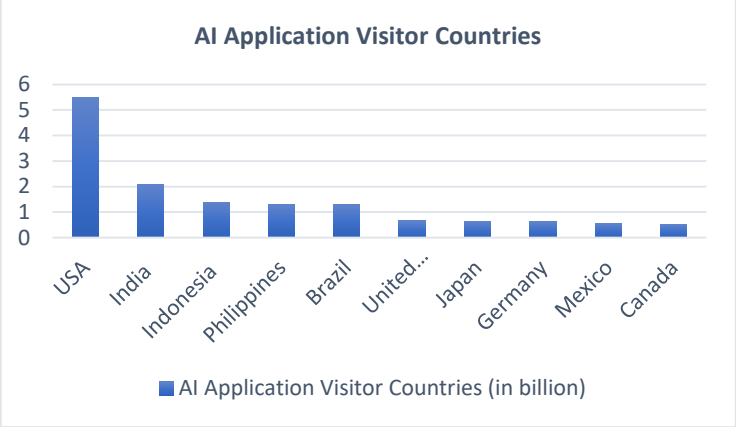

Figure 1. AI Aplication Visior Countries (In Billion)

Indonesia has emerged as one of the top contributors to global visits to artificial intelligence (AI) applications in 2023, according to a report by WriterBuddy, an AI-based content service. Based on Figure 1, between September 2022 and August 2023, internet users from Indonesia generated 1.4 billion visits to AI applications, accounting for 5.60% of the total global traffic, placing Indonesia third globally. Meanwhile, the United States ranked first with 5.5 billion visits, or 22.62% of the total global visits, despite having a smaller population than China and India. In second place, India recorded 2.1 billion visits, representing 8.52% of international visits, reflecting its status as one of the world's largest exporters of information technology services. WriterBuddy also highlighted that ChatGPT was the most used AI application over the past year, with 14.6 billion global visits, followed by Character.AI and QuillBot, which garnered 3.8 billion and 1.1 billion trips, respectively.

The integration of Artificial Intelligence (AI) technologies in accounting and finance has brought about substantial improvements in both efficiency and reliability within these industries, leading to a positive overall impact. According to Rahim and Chishti (2024) and Berdiyeva, Islam, dan Saeedi, (2021) the implementation of various AI technologies, such as expert systems, intelligent agents, and machine learning, has notably reduced errors and streamlined processes that were once prone to human error and inefficiencies. Expert systems, which mimic the decision-making abilities of a human expert, are used to handle complex tasks that require specialized knowledge. Intelligent agents, software entities that perform tasks autonomously, help in managing routine operations, thereby freeing up human resources for more strategic roles. Machine learning algorithms analyze vast amounts of data, identify patterns, and make predictions, enhancing the accuracy and speed of financial analyses.

AI has also revolutionized the finance industry by transforming how data is processed and how decisions are made (Cao, Jiang, Lei, & Zhou, 2024). With the ability to quickly analyze large datasets, AI helps financial professionals make more informed and timely decisions. This transformation is particularly evident in areas like risk management, fraud detection, and customer service, where AI systems can process information much faster and more accurately than humans are. In the accounting profession, AI has automated many routine tasks, such as data entry and reconciliation, leading to increased accuracy and efficiency (Sudhamathi, 2022). The use of AI in continuous auditing allows for real-time monitoring of transactions, which helps in

identifying and addressing discrepancies promptly. This capability not only improves the accuracy of financial records but also supports better decision-making by providing up-to-date information. Despite these significant benefits, the adoption of AI in accounting and finance is not without challenges. Data security remains a major concern, as the increased use of AI systems entails handling large volumes of sensitive financial data, making them potential targets for cyberattacks. Ethical considerations also come into play, particularly regarding the transparency and accountability of AI decisions. There is a need for robust frameworks to ensure that AI systems are used responsibly and ethically, with clear guidelines on data privacy and the mitigation of biases in AI algorithms.

Despite the advancements, several problems need to be addressed. The current research landscape is fragmented, with a lack of comprehensive reviews that synthesize existing knowledge. There is also an absence of standardized metrics for evaluating AI's impact, making it difficult to compare findings across studies. Moreover, most studies focus on short-term impacts, with limited research on the long-term implications of AI integration. Ethical and security issues remain underexplored, leaving organizations without clear guidelines on how to mitigate associated risks. This study aims to conduct a thorough bibliometric analysis to review existing research on the use of AI technologies in accounting and finance. By analyzing various studies, the research will develop standardized methods to measure the impact and effectiveness of AI in these fields. Additionally, it will examine the long-term effects of AI, focusing on improvements in efficiency, accuracy, and decision-making. The study will also address important ethical concerns, such as data privacy and security, and highlight potential risks and challenges.

The implications of this study are significant. By addressing these research gaps, the study will enhance our understanding of the benefits and challenges of AI, providing practical guidelines for organizations to adopt AI responsibly and effectively. It will also inform policymakers in creating regulations that ensure the ethical and secure use of AI in finance. This comprehensive analysis will contribute valuable insights to the existing literature, support better decision-making, and promote responsible AI integration in accounting and finance.

LITERATURE REVIEW

Artificial Intelligence

Artificial Intelligence (AI), or machine learning technology, is extensively utilized and implemented in different facets of everyday existence. The integration of artificial intelligence reasoning enables various advancements in data analysis and decision-making processes by gathering historical information, performing a comprehensive analysis of the data, identifying patterns, and providing real-time guidance for decision-making (Belgaum, Alansari, Musa, Alam, & Mazliham, 2021). The application of AI logic assists in automating the method, increasing efficiency, and reducing the likelihood of human error when executing manual operations, thereby contributing to increased knowledge in various domains.

AI is not a recent advancement; its progression remains a topic of continuous contemplation and investigation. Artificial Intelligence (AI) is a method employed to replicate the abilities of both living beings and non-living entities, implemented in computers and designed to mimic human thinking and problem solving. AI is the pursuit

of developing computers, robots, or apps and programs that possess the ability to operate with intelligence, similar to that of humans. In order to enhance the intelligence of AI, it necessitates a greater amount of knowledge and information. Essential aspects of AI development encompass the acquisition of knowledge, cognitive processes, and the ability to rectify errors autonomously. AI must enhance its proficiency in comprehending and harnessing its cognitive abilities. AI learning process is not necessarily guided by people or its developers; instead, it learns via human interactions.

Artificial Intelligence (AI) has a remarkable attribute the capacity to autonomously rectify or assess itself. AI is designed to continuously learn and identify itself based on previous error analysis. An advantage of AI over humans is its ability to concurrently mimic numerous tasks, allowing it to complement human endeavors. AI can execute four essential elements: acting humanly by adjusting to human behaviors and patterns, thinking humanly through cognitive processes akin to humans, engaging in rational thinking to process unbiased information, and acting rationally by employing logical reasoning. These capabilities underscore AI's potential to enhance efficiency and decision-making across various domains.

Financial Accounting

Accounting data is a crucial source of information for financial analysis (Ahmed, 2023). Therefore, having a comprehensive understanding of accounting data, including its production and reporting procedures, is extremely advantageous as a foundation for financial analysis. Prior to delving into the definition of financial accounting, it is important to first address the overarching definition of accounting. Financial accounting is a systematic procedure that results in the production of comprehensive financial statements that provide information about the entire organization (Aslam & Haron, 2021). These statements are intended for use by both internal and external stakeholders. According to the definition provided, the author comprehends financial accounting as the procedure of generating financial statements utilized by both internal and external entities.

Internal parties consist of firm management, who are responsible for future planning and target setting. External parties, on the other hand, encompass creditors, suppliers, and the government, all of whom have a stake in the relevant reports. PSAK No. 1 (revised 2015) outlines the objectives of financial accounting as follows: to present financial information and data that enable users of financial statements to make informed predictions about the company's future profit potential; to present accurate and dependable financial information about the company's liabilities, equity, and economic resources; to present information about changes in the company's economic resources and liabilities; and to include additional pertinent information along with the financial statements for the benefit of users of the financial statements.

Bibliometric Analysis

Bibliometric analysis involves the qualitative assessment of scientific literature, encompassing journals, articles, books, theses, and other scholarly documents, to uncover patterns, trends, and interrelationships in their production and usage. This method enables a deeper understanding of knowledge evolution, the impact of specific contributions, and the collaborative networks within the research community of interest. Bibliometric evolved from scientists' interest in the early 20th century in the dynamics of knowledge as reflected in the production of scientific literature. Literary products are something

visible and measurable, which is why bibliometric uses statistics and was initially called statistical bibliography (Martínez-López, Merigó, Gázquez-Abad, & Ruiz-Real, 2020). The history of bibliometric then shows a shift in interest, using statistics to study the development of scientific literature, from statistical bibliography to bibliometric. Alan Pritchard first introduced the term bibliometric in 1969, emphasizing the aspects of counting books, articles, and citations.

Bibliometric is known as a field of study that can reveal the magnitude and strengths of a particular field of science, or even a specific educational institution, through the application of various theories such as authorship analysis, citation analysis, webometrics (web-based bibliometric), co-authorship, document obsolescence, and more. Additionally, bibliometric can also reveal the productivity and distribution of scientific publications within their respective fields (Aleixandre Agulló & Cerezo Herrero, 2019). This type of research activity can illustrate the development of a field of knowledge by observing and examining the relationships between relevant documents in various forms, both printed and electronic. One of the subjects of bibliometric study in library and information science can contribute to presenting a map of the development of specific knowledge.

Bibliometric analysis provides numerous benefits, such as revealing patterns, trends, and interrelationships in the production and usage of scholarly literature, enhancing understanding of knowledge evolution, and contributing to the evaluation of scientific literature. The objectives of this research include identifying the magnitude and strengths of a specific field of science or an educational institution, and illustrating the development of knowledge within a field by examining relevant documents.

RESEARCH METHOD

Type of Research

Research presented herein utilizes a descriptive qualitative research method to describe the direction or process of research development under the appearance of the research object being used. The descriptive method is a method employed to describe or analyze research results, but it is not used to make broader conclusions. This research also employs a bibliometric analysis design, which is applied to measure or analyze literature using statistical and mathematical approaches.

Data Tools Analysis

This study employs two digital tools to assist in the search and analysis of academic literature: Publish or Perish (PoP) and VOSviewer. Publish or Perish enables the retrieval and compilation of scholarly articles from Google Scholar, allowing for a thorough literature search based on criteria such as publication dates and document types. On the other hand, VOSviewer is utilized for conducting bibliometric analysis and facilitating the visualization and mapping of citation networks, co-authorship patterns, and thematic clusters within the retrieved literature. These digital tools are critical components in the systematic analysis and presentation of the scholarly impact and relational structures within academic publications.

Research Strategy

The research strategy for bibliometric analysis encompasses a systematic approach comprising several well-defined steps. First and foremost, precise research questions are

devised to direct the analysis, emphasizing aspects such as publication trends or collaboration patterns among authors in the field of "Artificial Intelligence in Accounting and Finance" within the specified timeframe of 2021-2024. Thereafter, pertinent literature is extracted from databases such as Google Scholar using digital tools such as Publish or Perish (PoP), applying filters to only include journal articles and excluding other document types. The metadata for the selected articles is then meticulously examined and complemented to ensure precision and accuracy.

RESULTS AND DISCUSSION

The bibliometric analysis undertaken in this study was designed to provide a thorough examination of the scholarly output and patterns of interest in the intersection of Artificial Intelligence (AI) with Accounting and Finance. This analysis was intended to uncover the extent to which the field of AI has been integrated into these fields, revealing trends in research output and potential implications for future scholarly inquiry and practice. By analyzing a comprehensive dataset of relevant literature, the research aimed to gain insights into the impact of AI on these traditional disciplines and the opportunities for innovation and advancement that this interdisciplinary convergence presents.

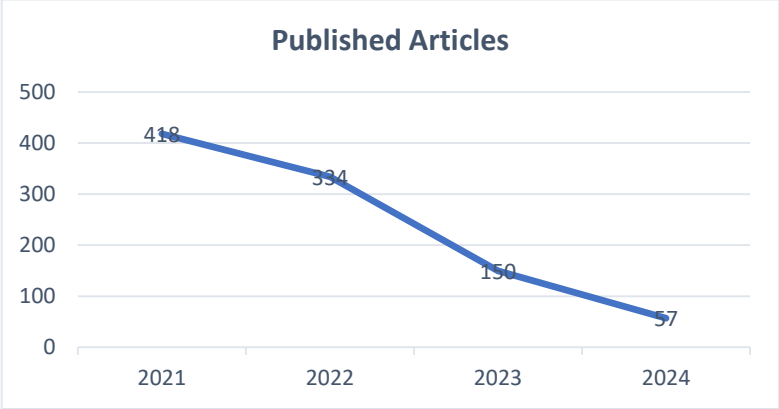

Figure 2. Published Articles (2021-2024)

Based on Figure 2, the search results concerning "Artificial Intelligence in Accounting and Finance" from the years 2021 through 2024 reveal a significant downward trend in the volume of published articles over this period. In 2021, there were 418 articles published that contained this specific keyword, reflecting a high level of interest and research activity in this area. However, in 2022, the number of such articles dropped to 334, indicating a reduction in scholarly focus. This declining trend continued into 2023, with only 150 articles published, marking a further significant decrease. As of 2024, the current year, the number of articles has dwindled to just 57. This progressive decline in the number of articles suggests a waning interest or a potential shift in research priorities within the field of Artificial Intelligence as it applies to Accounting and Finance over the last few years.

Figure 3. Top 10 Publishers of Articles (2021-2024)

Based on Figure 3, it is evident that the distribution of articles on "Artificial Intelligence in Accounting and Finance" across various publishers has been analyze and group over the past few years, specifically from 2021 to 2024. This analysis highlights the top 10 publishers in this field. Leading the list is Elsevier, which has published 244 articles during this period, establishing a significant dominance in disseminating research on this topic. Following Elsevier, Springer ranks second with 117 articles, showing a strong presence in the field but with fewer publications compared to Elsevier. MDPI is next with 65 articles, indicating its notable contribution to the research community. Emerald closely follows MDPI, having published 64 articles, just 1 article less.

Wiley Online Library has contributed 53 articles, placing it in the fifth position. Taylor & Francis is not far behind, with 52 articles published, a close competition with Wiley Online Library. SAGE Publications (sagepub) has made its mark with 24 articles, reflecting a moderate level of engagement in this research area. IEEE has published 21 articles, indicating its involvement in the intersection of technology and finance. Finally, both CEEOL and ResearchGate have each published 19 articles, rounding out the list of top publishers. This distribution of articles highlights the varied yet focused efforts of these publishers in advancing the discourse on Artificial Intelligence in Accounting and Finance over the last few years.

The most cited article is "A Survey on Bias and Fairness in Machine Learning" by Ninareh Mehrabi, Fred Morstatter, Nripsuta Saxena, Kristina Lerman, and Aram Galstyan with 4163 citations. This article is highly popular and relevant, given the critical importance of the topic of bias and fairness in machine learning. This issue is a major concern in the AI community, especially in the context of ethical and fair deployment of AI technologies. The second most cited article, "Artificial Intelligence (AI): Multidisciplinary Perspectives on Emerging Challenges, Opportunities, and Agenda for Research, Practice and Policy" by Yogesh K. Dwivedi and colleagues, has 2062 citations. This article combines multidisciplinary perspectives to identify challenges, opportunities, and research agendas in the field of AI. Its significant contribution lies in its comprehensive coverage of various aspects of AI development and application. The third article on the list, "Artificial Intelligence and Management: The Automation–Augmentation Paradox" by Sebastian Raisch and Sebastian Krakowski, has 1027 citations. This article discusses the paradox in AI management between automation and augmentation, which is a crucial topic in modern management.

Table 1. Citation Counts of Publications

No	Authors	Title	Citation
1	Ninareh Mehrabi, Fred Morstatter, Nripsuta Saxena, Kristina Lerman, and Aram Galstyan	A Survey on Bias and Fairness in Machine Learning	4163
2	Yogesh K. Dwivedi Laurie Hughes, Elvira Ismagilova, Gert Aarts, Crispin Coombs, Tom Crick, Yanqing Duan, Rohita Dwivedi, John Edwards, Aled Eirug, Vassilis Galanos, P. Vigneswara Ilavarasan, Marijn Janssen, Paul Jones, Arpan Kumar Kar, Hatice Kizgin, Bianca Kronemann, Banita Lal, Biagio Lucini, Rony Medaglia, and Michael D. Williams	Artificial Intelligence (AI): Multidisciplinary Perspectives on Emerging Challenges, Opportunities, and Agenda for Research, Practice and Policy	2062
3	Sebastian Raisch and Sebastian Krakowski	Artificial Intelligence and Management: The Automation–Augmentation Paradox	1027
4	Ming-Hui Huang and Roland T. Rust	A Strategic Framework for Artificial Intelligence in Marketing	895
5	Yue Pan and Limao Zhang	Roles Of Artificial Intelligence in Construction Engineering and Management: A Critical Review And Future Trends	692
6	Patrick Mikalef and Manjul Gupta	Artificial Intelligence Capability: Conceptualization, Measurement Calibration, and Empirical Study on its Impact on Organizational Creativity and Firm Performance	667
7	Kjersti Aas, Martin Jullum, and Anders Løland	Explaining Individual Predictions When Features are Dependent: More Accurate Approximations to Shapley Values	596
8	Tanveer Ahmad, Dongdong Zhang, Chao Huang, Hongcai Zhang, Ningyi Dai, Yonghua Song, and Huanxin Chen	Artificial Intelligence in Sustainable Energy Industry: Status Quo, Challenges and Opportunities	595
9	Stefano Puntoni spuntoni, Rebecca Walker Reczek, Markus Giesler, and Simona Botti	Consumers and Artificial Intelligence: An Experiential Perspective	594
10	Don Hee Lee and Seong No Yoon	Application of Artificial Intelligence-Based Technologies in the Healthcare Industry: Opportunities and Challenges	562

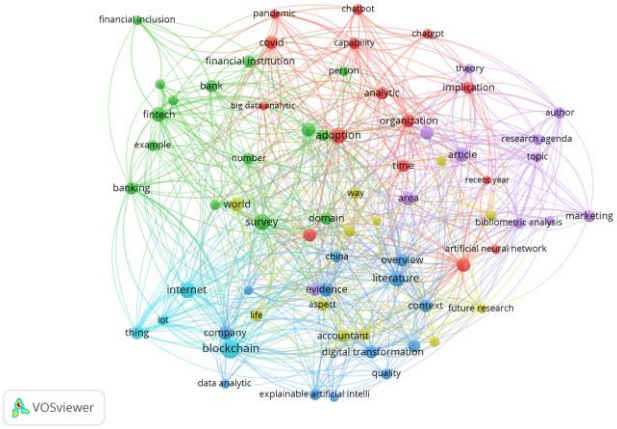

Figure 4. Network Visualization

The network visualization (Figure 4) generated using VOSviewer offers a comprehensive overview of the interconnected terms and themes within the dataset. This analysis highlights the thematic structures and interdependencies, providing a foundation for further discussion and research. The visualization reveals several distinct clusters, each representing a concentration of related terms. The green cluster, centered on terms like "financial inclusion," "bank," "fintech," and "financial institution" indicates a strong focus on financial technology and inclusion. This cluster underscores the significance of fintech innovations and their impact on traditional banking systems and financial access. The prominence of "financial inclusion" suggests an emphasis on expanding access to financial services for underserved populations, a critical issue in global economic development. In contrast, the red cluster highlights terms such as "chatbot," "covid," "pandemic," and "capability," reflecting the intersection of technology and the COVID-19 pandemic. The frequent occurrence of "chatbot" in this cluster points to the increased reliance on automated systems to manage customer interactions and support during the pandemic. This cluster underscores the role of digital transformation in response to global crises and the adoption of AI-driven solutions in various sectors.

The purple cluster (Figure 5) characterized by terms like "theory," "author," "article," "research agenda," and "marketing." This cluster is indicative of academic and research-oriented discussions, emphasizing the importance of theoretical frameworks, scholarly publications, and research trends. The connections within this cluster suggest a focus on the dissemination and impact of research findings, particularly in the fields of marketing and bibliometric analysis. The blue cluster, which includes terms such as "blockchain," "company," "data analytic," "iot," and "internet," signifies an interest in emerging technologies and their applications. The prominence of "blockchain" and "iot" (Internet of Things) within this cluster highlights the growing relevance of these technologies in various industries. This cluster suggests ongoing exploration and integration of cutting-edge technologies to enhance business operations and data analytics capabilities.

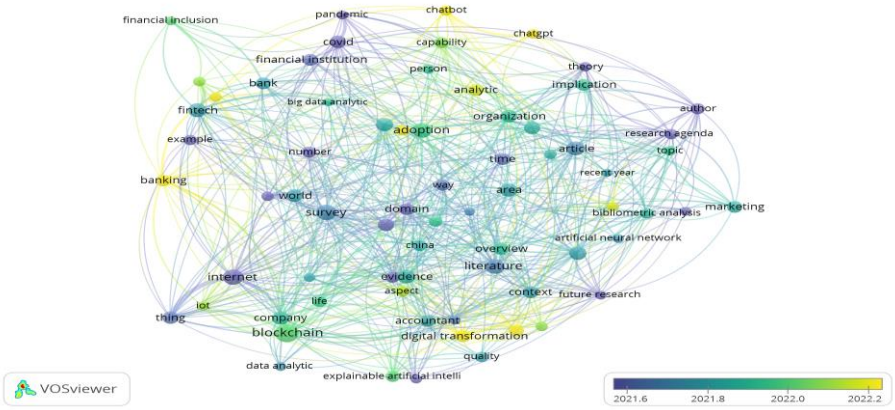

Figure 5. Overlay Visualization

The analysis of temporal trends in discourse and research provides crucial insights into the evolution of topics within a field. By overlaying a color gradient representing different times—from dark blue (earlier) to yellow (recent)—we can observe how prominence and focus have shifted over time. Foundational topics colored in darker shades of blue, such as "iot," "internet," and "theory," underscore their enduring significance within the discourse. These terms indicate longstanding interests and foundational elements that have laid the groundwork for ongoing discussions and innovations. They represent areas where foundational knowledge continues to shape research trajectories and industry developments. In contrast, terms colored in yellow signify more recent and emerging themes in the dataset. These include "chatgpt," "digital transformation," and "explainable artificial intelligence," reflecting current trends and technological advancements. The emergence of these topics highlights shifts in research focus towards cutting-edge technologies and their impact on various sectors, indicating areas of growing interest and potential future research directions.

Analyzing clusters reveals distinct temporal patterns and thematic evolutions within the dataset. For instance, the green cluster, focused on financial technology and inclusion, shows a progression from earlier discussions on fintech towards recent considerations of financial institutions' roles in promoting inclusion, likely influenced by technological advancements and global economic changes. The red cluster, encompassing pandemic and AI technologies, demonstrates a clear temporal progression from discussions on pandemic-related technologies like chatbots towards recent explorations of AI capabilities such as ChatGPT. This shift underscores the rapid evolution of AI technologies in response to global challenges and technological advancements.

The density map (Figure 6) represents a graphical visualization of the density and a visual aid that enhances the comprehension of the frequency of specific keywords within the given domain. This data visualization appears to depict a word cloud analysis centered on the theme of financial inclusion, particularly through the technological lens. Prominent terms like "financial inclusion," "fintech," and "big data analytic" occupy central positions, highlighting the core focus on leveraging technological advancements to broaden access to financial services. The presence of "pandemic" suggests a particular interest in exploring how these technologies can be utilized to address challenges posed by the COVID-19 crisis and potentially enhance financial resilience. Surrounding terms like "adoption," "theory," and "world" indicate a deeper exploration encompassing theoretical frameworks for financial inclusion, the global adoption rates of these

technological solutions, and their long-term impact. Furthermore, the inclusion of terms like "internet of things," "blockchain," and "explainable AI" suggests a potential discussion on emerging technologies that might hold promise for shaping the future landscape of financial inclusion.

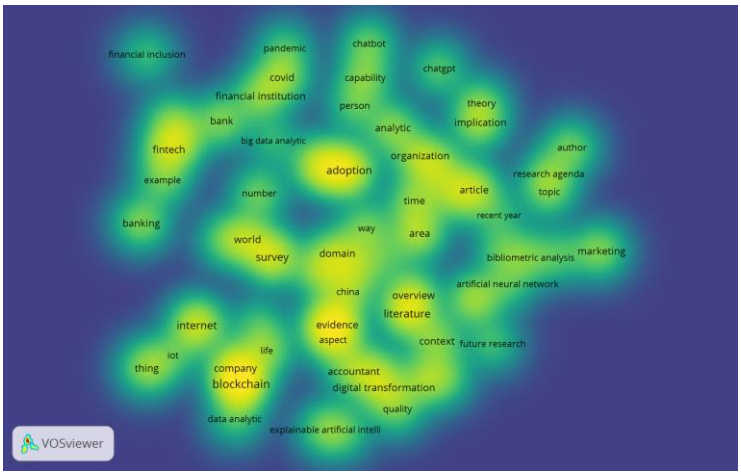

Figure 6. Density Visualization

The initial surge of research into Artificial Intelligence (AI) applications within Accounting and Finance appears to be plateauing based on publication volume; the thematic analysis uncovers a dynamic field undergoing a potential shift in focus. Leading publishers like Elsevier have established themselves as key disseminators of research in this domain. Ethical considerations remain paramount, as evidenced by the high citations for works on bias in machine learning. The network visualization exposes a rich tapestry of thematic clusters, with a strong emphasis on leveraging AI for financial inclusion (green cluster, word cloud) and a growing recognition of the role AI technologies can play in navigating challenges like the COVID-19 pandemic (red cluster). Furthermore, the analysis of temporal trends underscores a continuous evolution of research interests, with a clear move towards exploring the potential of cutting-edge technologies like ChatGPT and explainable AI. This shift highlights the ongoing quest to harness the power of AI for not only financial process automation but also for addressing critical global issues and ensuring responsible and inclusive financial systems.

Recent studies on Artificial Intelligence in Accounting and Finance that utilize bibliometric analysis have demonstrated that this approach offers a comprehensive understanding of the evolution of international accounting research. Moreover, the utilization of overlay visualization techniques enables researchers to identify significant trends and patterns within the field, offering valuable insights for further study (Judijanto et al., 2023; Lidyah, Defitri, Sudarmanto, E., & Rukmana, 2023). Bibliometric analysis has the potential to highlight the interconnected nature of relevant concepts and identify critical areas for further research (Dwianika, Purwanto, Suyoto, & Pitaloka, 2024; Rizka, Hastina, & Pramono, 2024). This approach can reveal the importance of incorporating various perspectives to enable effective reporting and accounting practices that emphasize a company's environmental and social impacts. The present bibliometric analysis provides an in-depth analysis of the various accounting information research, thereby the intricate nature of the field's development (Aprianti, Siregar, Judijanto, & Wati, 2023). This approach offers a deeper understanding of the nuances of accounting information research, thereby revealing important insights into the dynamics and evolution of the field.

CONCLUSION AND SUGGESTION

AI in Accounting and Finance is an evolving field, despite a potential slowdown in research articles. The focus is turning towards areas like financial inclusion and using new technologies like blockchain. Exploring cutting-edge tools like ChatGPT suggests moving towards solving global challenges and building trustworthy AI for financial tasks. Future research should delve into the reasons behind the potential drop in publications. This involves AI-powered solutions for micro-loans, financial education chatbots, and culturally sensitive AI models. Future research AI and Accounting and Finance focuses on understanding the reasons behind a potential decline in research publications, exploring innovative AI applications for financial inclusion, technologies like blockchain and ChatGPT, and global challenges through AI-powered solutions. By analyzing these areas, researchers can contribute to developing AI systems that are trustworthy, efficient, and beneficial for society, while also expanding the frontiers of knowledge in this evolving field.

REFERENCES

Ahmed, M. M. A. (2023). The relationship between corporate governance mechanisms and integrated reporting practices and their impact on sustainable development goals: Evidence from South Africa. *Meditari Accountancy Research*. doi.org:10.1108/MEDAR-06-2022-1706.

Aleixandre Agulló, J., & Cerezo Herrero, E. (2019). Bilingual education research: A bibliometric study. *Elia: Estudios de Lingüística Inglesa Aplicada, 1 Monográfico, 325-360.*

Aprianti, S., Siregar, S. E., Judijanto, L., & Wati, I. (2023). 2023 Exploration of Bibliometric Research in Accounting Information: Trends and Challenges. *West Science Accounting and Finance*, *1*(03), 97–107. doi.org:10.58812/wsaf.v1i03.394.

Aslam, E., & Haron, R. (2021). Corporate Governance and Banking Performance: The Mediating Role of Intellectual Capital Among OIC Countries. *Corporate Governance (Bingley)*, *21*(1), 111–136. doi.org:10.1108/CG-08-2020-0312.

Belgaum, M. R., Alansari, Z., Musa, S., Alam, M. M., & Mazliham, M. S. (2021). Role of Artificial Intelligence in Cloud Computing, IOT and SDN: Reliability and Scalability Issues. *International Journal of Electrical and Computer Engineering*, *11*(5), 4458–4470. doi.org:10.11591/ijece.v11i5.pp4458-4470

Berdiyeva, O., Islam, M. U., & Saeedi, M. (2021). Artificial intelligence in accounting and finance: Meta-analysis. *International Business Review*, *3*(1), 56-79.

Cao, S. S., Jiang, W., Lei, L. (Gillian), & Zhou, Q. (Clara). (2024). Applied AI for Finance and Accounting: Alternative Data and Opportunities. *Pacific-Basin Finance Journal*, *84*, 102307. doi.org:10.1016/j.pacfin.2024.102307

Dwianika, A., Purwanto, E., Suyoto, Y. T., & Pitaloka, E. (2024). Bibliometrics analysis of green accounting research. *International Journal of Energy Economics and Policy*, *14*(1), 349–358. doi.org:10.32479/ijeep.15055.

Judijanto, L., Prasetya Nugrahanti, T., Ashari, H., Fitri, A., Institute, P., & Fitri, S. A. (2023). Bibliometric analysis of the development of international accounting research: A review of the literature in the last two decades. *West Science Accounting and Finance*, *1*(03), 85–96. doi.org:0.58812/wsaf.v1i03.396.

Lidyah, R., Defitri, S.Y., Sudarmanto, E., & Rukmana, A.Y. (2023). The evolution of

accounting information systems research: A bibliometric analysis of key concepts and influential authors. *The ES Accounting and Finance*, *01*(03), 113–124. doi.org:10.58812/esaf.v1.i03

Martínez-López, F. J., Merigó, J. M., Gázquez-Abad, J. C., & Ruiz-Real, J. L. (2020). Industrial marketing management: Bibliometric overview since its foundation. *Industrial Marketing Management*, *84*, 19–38.

Rahim, R., & Chishti, M. A. (2024). Artificial intelligence applications in accounting and finance. *Proceeding of 2024 ASU International Conference in Emerging Technologies for Sustainability and Intelligent Systems (ICETSIS)*, 1782–1786. doi.org:10.1109/ICETSIS61505.2024.10459526

Rizka, H. N., Hastina, H., & Pramono, S. E. (2024). A bibliometric analysis of green accounting research. *JAS (Jurnal Akuntansi Syariah)*, *8*(1), 37–53. doi.org:10.46367/jas.v8i1.1737

Sudhamathi, R. K. (2022). Artificial intelligence in accounting profession: A way forward. *Asian Journal of Research in Banking and Finance*, *12*(3), 7-9.