

Forensic Accounting in the Knowledge and Innovation Society: A Bibliometric Approach

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Abstract. *This study employs a bibliometric analysis using Vos Viewer Software to identify key trends and developments in forensic accounting, particularly in manipulating financial statements. The research explores the evolution of forensic accounting, its role in detecting fraud, and the influence of technological advancements on economic crimes. The study analyzes scientific publications, co-citation networks, and keyword trends through bibliometric mapping to outline the thematic evolution of forensic accounting research. The findings indicate an increasing academic interest in fraud detection techniques, integrating artificial intelligence and big data in forensic investigations, and the growing complexity of financial fraud schemes. Additionally, the study reviews various methods used in forensic accounting, including financial ratio analysis, digital forensic tools, and predictive analytics, in the context of fraud detection. Also, the study identifies emerging trends, challenges, and areas for further investigation by combining quantitative and qualitative research methodologies. The results contribute to a broader understanding of forensic accounting as an interdisciplinary field encompassing accounting, finance, law, and cybersecurity. The bibliometric approach facilitates the identification of research gaps and provides insights that may support the development of more effective fraud detection strategies.*

Keywords: forensic accounting, bibliometrics, fraud detection, financial reports, digitalization.

Introduction

The knowledge and innovation society refers to an economic and social environment where knowledge creation, technological advancements, and innovation are central to economic growth, competitiveness, and decision-making. Forensic accounting is important in leveraging emerging technologies such as artificial intelligence, blockchain, and big data analytics to enhance fraud detection and financial transparency (Hossain, 2023). The need for forensic accounting has been recognized for over a century. A key function of forensic accountants is to prevent and detect fraud, as there will always be individuals who seek to exploit systems for unfair gain. Forensic accountants possess valuable knowledge that can help mitigate the risk of fraud in financial

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statements and enhance the chances of early detection when fraud has already occurred (Kaur et al., 2023). Many instances of financial statement fraud are uncovered unintentionally, as perpetrators often fail to conceal their actions effectively. Therefore, training staff to observe and report any irregularities is essential. Detecting fraud involves identifying indicators, or red flags, that may indicate anything from negligence to outright fraudulent activity (Tabirca et al., 2019; Afriyie et al., 2023).

Forensic accounting is essential in detecting and preventing financial fraud in today's knowledge-driven and innovative landscape. It fosters transparency and accuracy in financial reporting, safeguarding individuals and organizations from significant financial losses. Forensic accountants enhance court outcomes by providing valuable financial data and expert testimony during legal proceedings. Their analysis of financial information assists companies in managing risks and ensuring regulatory compliance. Additionally, their efforts contribute to advancing accounting practices and tools to prevent financial crimes. Forensic accounting supports sustainable economic growth by promoting financial stability and enhancing stakeholder trust (Ozili, 2025).

Financial statement fraud represents a significant threat to the integrity of financial markets and undermines investor confidence. It involves intentionally manipulating financial information to mislead stakeholders, including investors, creditors, and legal authorities (Radu et al., 2016; Reurink, 2019). Investigating financial accounting fraud entails analyzing and scrutinizing financial documentation, transactions, and internal procedures to identify potential red flags of fraud. Comparative financial statements offer insights into both the current and previous financial periods. A fraudulent presentation of financial statements can alter the relationships between various figures, leading to misleading conclusions. Additionally, ratio analysis measures the relationship between two items within the financial statements.

De Giuli et al. (2024) investigate the connection between environmental, social, and governance (ESG) factors and risk within the context of ESG and risk management. They emphasize key trends, methodologies, and existing research gaps in the literature, analyzing how ESG considerations influence risk in financial markets and investment choices. Additionally, they highlight the importance of integrating ESG factors into corporate and financial strategies to manage risks and promote sustainable economic growth effectively.

Benford's Law can also be employed to detect irregularities in financial data. This principle states that the leading digits in naturally occurring datasets follow a specific distribution pattern, with smaller digits appearing more frequently than larger ones. Deviations from this expected distribution may indicate potential fraud; thus, forensic accountants utilize Benford's Law to uncover anomalies that could suggest financial statement manipulation (Nigrini, 2012).

Analyzing fraud in financial statements, mainly through revenue overstatement and understatement, often reveals unexpected discrepancies between reported revenues and operating cash flows. For an accurate cash flow assessment, it is essential to examine a company's reported revenues over time and compare them with competitors and industry averages. Cash flow analysis is a valuable tool for detecting financial accounting fraud, as it is based on actual cash movements, which are generally more challenging to manipulate than accounting data (Gray & Debreceeny, 2014; Tebergaoui et al., 2022).

A growing body of literature provides evidence that non-financial valuations can provide valuable analytical information to supplement the data in a company's financial statements. Forensic accountants may have access to non-financial information through the litigation discovery process or because they conduct internal reviews (Singleton & Singleton, 2010; Felix, 2022).

Analyzing non-financial figures is one method used in detecting financial accounting fraud, providing additional insight into a company's business. Non-financial data such as production levels, sales volumes, human resources data, or operational indicators can be correlated with financial data to identify inconsistencies and potential fraud.

The increasing complexity of financial fraud schemes and the rapid integration of digital technologies into financial reporting have made forensic accounting a critical field of study. As businesses and financial institutions transition to knowledge-based economies, the risks associated with fraudulent financial reporting, cyber-enabled financial crimes, and corporate misconduct have escalated. Despite significant advancements in forensic accounting methodologies, gaps remain in understanding the evolving nature of fraud detection techniques, the role of artificial intelligence and big data in forensic investigations, and the regulatory challenges in ensuring financial transparency. This study is necessary because it provides a comprehensive bibliometric analysis of forensic accounting research, identifying key trends, influential works, and emerging areas of interest. By mapping the interconnections between forensic accounting, corporate governance, financial technology, and regulatory compliance, the research contributes valuable insights into how forensic methodologies can be adapted to the demands of the knowledge and innovation society. Furthermore, the study addresses the need for a structured and evidence-based approach to detecting fraud, offering a foundation for future research and policy recommendations in forensic accounting.

This research aims to deepen our understanding of forensic accounting as an interdisciplinary field incorporating elements of accounting, finance, law, and cybersecurity. The study aims to identify existing research gaps and offer insights that can aid in developing more effective fraud detection strategies, particularly concerning financial statements.

The central research question is: How has forensic accounting evolved, and what are its prospects for enhancing fraud detection, specifically regarding manipulating financial statements in the context of knowledge society? The primary hypothesis posits increased academic interest in fraud detection techniques, the integration of artificial intelligence in forensic investigations, and the analysis of financial fraud schemes.

Literature review

Forensic accounting can develop in contemporary financial oversight by merging accounting, auditing, law, and digital forensics to detect and prevent fraud effectively. Its importance extends beyond conventional financial analysis, as it is intricately linked to corporate governance, cybersecurity, and big data analytics. The growing complexity of financial crimes, exacerbated by globalization and digital transactions, has made forensic accounting an indispensable tool for fraud detection, risk management, and financial compliance. Additionally, the integration of artificial intelligence and blockchain technology enhances the capacity of forensic accountants to analyze extensive datasets, expose fraudulent schemes, and promote financial transparency. As organizations confront increasing regulatory pressures and the evolution of fraud tactics, forensic accounting is increasingly connected with machine learning, cybersecurity frameworks, and regulatory compliance strategies. These interdisciplinary connections reinforce the strategic significance of forensic accounting in safeguarding financial integrity and maintaining investor confidence in an era of rapid technological advancement.

Peloubet (1946) first introduced forensic accounting, which refers to the economy at that time and the need to identify and reduce fraud. However, it was not until the 1980s that forensic

accounting procedures were widely implemented, coinciding with the publication of significant academic studies in the field (Aho, 1985; Carert, 1990).

Applying Benford's Law in forensic accounting enhances the ability to identify discrepancies that may indicate non-compliance or fraudulent reporting. By predicting the frequency distribution of leading digits in natural datasets, this statistical phenomenon serves as a valuable tool for detecting anomalies that could suggest manipulation of financial information. As a result, this method is particularly effective when analyzing large datasets, where manual inspection becomes impractical. (Tota et al., 2016).

Forensic accounting is a discipline that applies accounting principles and information-gathering techniques through auditing to resolve legal issues. It requires the integration of investigative, accounting, and auditing expertise (Koh et al., 2009). Furthermore, Hopwood et al. (2008) emphasized the role of forensic accounting in investigating fraud. According to Gottschalk (2010), forensic accounting involves examining financial documents to identify relevant evidence. Other authors noted that the primary focus of forensic accounting is the identification of inclusive fraud and the impact of its perpetration on the field of accounting. He further indicated that the activities of forensic accountants encompass investigating and analyzing financial evidence, which includes developing computer applications to aid in the analysis and presentation of this evidence, communicating findings through reports, and aiding in legal proceedings (Bhasin, 2007).

Fraud is defined by the International Standard on Auditing (ISA 240) as an intentional act perpetrated by one or more individuals within management, those charged with governance, employees, or third parties, involving deception to gain an unjust or illegal advantage (IFAC, 2023). Additionally, the OECD emphasizes the importance of periodically addressing and eradicating fraud within economic organizations (OECD, 2015). In their discussion, Turksen and Abukari (2021) examine fraud in the context of OECD regulatory frameworks, characterizing it as an unethical practice that involves manipulating accounting information to obscure the true financial position of an entity.

Ramaswamy (2005) highlights that inadequate corporate governance and accounting failures significantly contribute to fraud cases. Poor corporate governance can enable specific individuals or groups with aligned interests to engage in fraudulent activities within the organization. Other authors define financial statement fraud as intentionally manipulating and distorting financial data to obscure a company's financial condition. Typically, the individuals who perpetrate such fraud have established a position of trust within the organization (Ravisankar et al., 2011).

Financial statement fraud is the intentional misrepresentation or omission of figures in financial statements to mislead users, particularly investors and creditors. This type of fraud can manifest in several ways, including falsifying, altering, or manipulating accounting records and supporting documents; deliberately omitting or misstating material transactions or other critical information that underpins the financial statements; improperly applying accounting principles, policies, and procedures related to the measurement, recognition, reporting, and presentation of economic events; and intentionally failing to disclose information about accounting policies and principles (Abed et al., 2022).

Based on the literature investigated in this research, Figure 1 illustrates the three principal modalities through which fraud can be perpetrated.

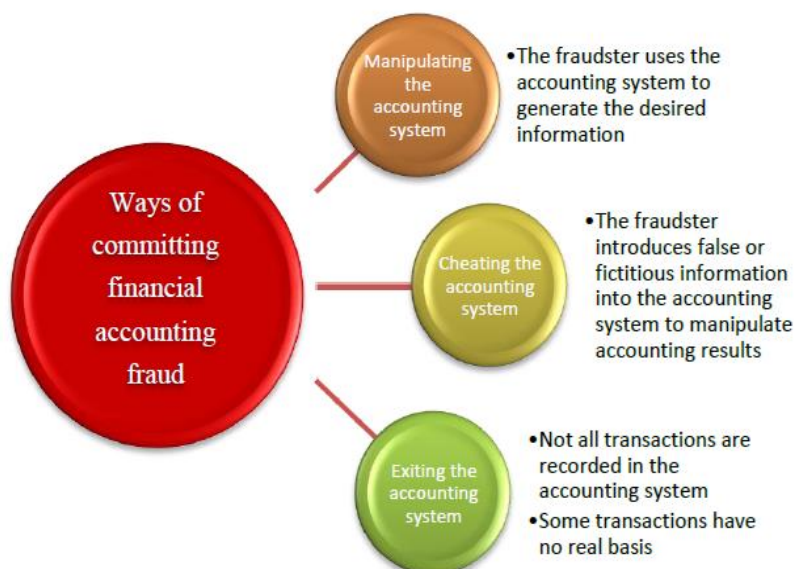


Figure 1. Ways of committing fraud in financial accounts

Source: Authors own research.

These modalities can identify the potential emergence of fraud schemes in financial statements, which may arise from human errors or unintentional omissions and intentional omissions of information related to accounting policies and principles. Additionally, they may involve intentional material omissions or misstatements of transactions or other critical information that underpin the preparation of financial statements. Furthermore, the incorrect application of accounting principles, policies, and procedures used to evaluate, recognize, report, and present economic events, along with falsifying, modifying, or manipulating accounting records or supporting documents, underscores the necessity for forensic accounting.

The specialized works propose analyzing alarm signals regarding different fraud risks. Table 1 presents a synthesis of these alarm signals by correlation with different categories of information.

Table 1. Financial statement fraud warning signs

Alarm Signals	Examples
<i>Company characteristics</i>	
Complex organizational structure	Many affiliated companies that appear to have no useful function
Poor corporate governance structure Inadequate	audit committee, board largely composed of internal or non-independent directors
Poor internal control	processes Lack of oversight, inadequate segregation of duties
Unusually complex transactions with third parties	Transactions that appear to be one-way sales reflecting the payment in only one part of a transaction

Frequent changes in auditors	Changes of auditors occur more frequently than is usual for the industry
History of questionable reporting	Misrepresentation of financial statements
Overly optimistic operating results reported to the public	Management's forecasts of operating results too optimistic
<i>Management and staff</i>	
Aggressive management style	Strong pressure for quick results
Poor staff practices and environment	Poor hiring and training practices
<i>Accounting anomalies</i>	
Unusual accounting practices	Use of accounting principles or methods not commonly accepted by the industry in which the company operates
Unusual transactions recorded at year-end	Transactions resulting in a significant increase in revenue
Misstated or unrecorded transactions	Significant transactions which, if recorded, would adversely affect revenue
<i>Operational anomalies</i>	
Frequent transactions between the entity's bank accounts	Bounced check schemes
Unusual transactions appearing in the records	Transactions that are not consistent with the entity's operations
Unusual transfers to foreign banks	Transfers to foreign banks that appear to have no substantial business purpose
<i>Financial condition and operating environment</i>	
Deteriorated financial condition	Loss of earnings, worsening debt to equity ratios
Worsening operations of the company	Abnormal declines in customer demand for the company's products or services
Alarm Signals	Examples
Worsening environment and conditions	Downward trend in demand for the company's products and services
<i>Sudden improvement in operating performance</i>	
Substantially improved year-end financial position and results	Sharp increase in net assets or net income

Source: Authors' adaptation after Crain et al., 2019.

Previous research has extensively examined the relationship between companies' earnings, commitments, and cash flows during fraudulent activities and in the periods immediately preceding them. Dechow et al. (1996) analyzed financial commitments over two key periods—one year before the fraud and the year of the fraud—and found that firms that intentionally overstated their earnings had significantly higher commitments. Their study concluded that cash flows were consistently lower than reported earnings before and during the fraud. Similarly, Lee et al. (2003) explored the connection between earnings, cash flows, and financial fraud, suggesting that fraudulent activities distort financial statements in the years leading up to their discovery. Their findings indicate that the gap between reported earnings and actual cash flows is often extreme, with discrepancies reaching up to 90% in fraudulent cases, making earnings a key red flag for detecting financial accounting fraud. Rosner (2003) also highlights that companies facing financial distress may more likely engage in fraudulent reporting to obscure their struggles. As firms approach bankruptcy, their financial statements tend to underreport liabilities, presenting a misleading picture of their financial health compared to audit findings. These studies collectively emphasize the critical role of forensic accounting in detecting fraud by scrutinizing discrepancies in financial reports, particularly in earnings manipulation and cash flow inconsistencies.

The existing body of research highlights the critical role of forensic accounting in detecting and preventing financial fraud, emphasizing its interdisciplinary nature and growing importance in corporate governance. Studies have demonstrated how earnings manipulation, cash flow discrepancies, and financial distress are key indicators of fraudulent activities, reinforcing the necessity of forensic techniques in financial investigations. Additionally, the integration of artificial intelligence, big data, and digital forensics is transforming forensic accounting, enabling more sophisticated fraud detection mechanisms. As financial crimes become increasingly complex, future research should focus on enhancing predictive models, refining forensic methodologies, and strengthening regulatory frameworks. By bridging traditional forensic techniques with emerging technologies, forensic accounting will continue to evolve as a cornerstone of financial transparency and integrity in the global economy.

Methodology

The methodology employed in this research on forensic accounting and fraud detection follows a qualitative and bibliometric approach, incorporating various research techniques. The study conducts an extensive review of existing academic literature related to forensic accounting, fraud detection, financial statement manipulation, and the integration of modern techniques such as artificial intelligence and cybersecurity. The investigation method for conducting the research follows the PRISMA Statements methodology structured in five steps: 1) data search strategy, (2) data collection, (3) data screening and data filtering, (4) quantitative analysis, and (5) interpretation (Moher et al., 2015; Radu et al., 2021).

This research employs a bibliometric and network analysis approach using Vos Viewer Software to map and analyze relationships between forensic concepts (Van Eck & Waltman, 2013). The cluster and co-occurrence analysis provide insights into emerging trends, thematic areas, and interdisciplinary linkages within forensic accounting and digital forensics. This approach helps visually interpret and contextualize forensic science research across multiple domains.

A bibliometric analysis was performed using Vos Viewer Software to address the research question, with data sourced from the Web of Science (WOS Core Collection) database. This analysis focused on identifying key trends and developments in forensic accounting, particularly concerning the manipulation of financial statements. The WOS database was selected based on its high international reputation for the quality of published scientific papers and its ability to connect with researchers from a diverse, multidisciplinary global academic community.

The search was carried out using forensic accounting-related terms and phrases, including "Forensic Accounting", "Forensic Accounting and Corporate Social Responsibility", "Forensic Accounting and Corporate Social Governance", "Forensic Accounting and Digitalization", "Forensic Accounting and Knowledge Society", and "Forensic Accounting and Innovative Society". The goal was to find pertinent publications from 1976 to 2024.

The dataset underwent a rigorous screening process to ensure relevance and quality. Irrelevant articles, duplicates, and non-peer-reviewed papers were excluded. Specific inclusion criteria were applied:

- Articles must address forensic accounting or fraud detection directly.
- Publications must be peer-reviewed.

This inquiry concentrated on forensic accounting while exploring its interconnections with corporate social responsibility, corporate governance, digitalization, knowledge, and innovative society. The study encompasses a comprehensive timeframe from 1976 to 2024, particularly emphasizing the trends observed in the most recent four years.

The data filtering process used both automatic methods and manual evaluation to remove noise and guarantee the dataset's correctness. Within forensic accounting and digital forensics, the cluster and co-occurrence analysis revealed new patterns, theme areas, and interdisciplinary connections.

The last phase involved interpreting the findings to pinpoint important patterns and unmet research needs and developing themes in forensic accounting. The report noted developments in forensic technologies, the growing complexity of financial crimes, and the changing function of forensic accounting in maintaining financial integrity and transparency. In relation to verifying terms in the WoS, we have drawn up a table with the first 10 cited authors according to the number of citations and their relevance to forensic accounting (Table 2).

Table 2. Top 10 authors according to the number of citations in Web of Science

No.	Expression	Forensic Accounting	fraud detection	financial statement manipulation
1		Crocker AG	Khoshgoftaar TM	Durana P
2		Seto MC	Zhang J	Kistner SP
3		Nicholls TL	Li Z	Lin FY
4		Berg GE	Liu GJ	Neto OAP
5		Stephan CN	Zhang Z	Valaskova K
6		Byard RW	Faloutsos C	Achim MV
7		Charette Y	Jiang CJ	Bansal M
8		Lamb ME	Liu Y	Blazek R
9		Egeland T	Wang C	Drábková Z
10		Baggili I	Li Y	Filipovic I

Source: Authors' own research

An intriguing tendency in the field of forensic accounting was identified by the WoS analysis: writers who are not necessarily well-known in the academic world sign the articles with the most citations. This implies that reputable research is not the only source of innovation and relevance. A notable vacuum in the literature is also highlighted by the small number of published publications, which may understate the significance of forensic accounting in the legal and financial domains. This demonstrates the pressing need to promote interdisciplinary study and cooperation to foster significant and well-founded contributions to this important subject. Putting more emphasis on this area could help professionals better traverse the difficulties in the field of forensic accounting by promoting theoretical and applied development.

This study employs a qualitative methodology and bibliometric analysis to identify key trends and developments in forensic accounting, with a particular focus on the examination of financial accounts. This investigation provides a comprehensive understanding of the field's evolution and the influence of technological advancements on economic crimes.

Data for the bibliometric analysis was sourced from the WoS Core Collection database, which is well-known for its high-quality scientific publications and global esteem. The search will use keywords such as "forensic accounting," "fraud detection," "financial statement manipulation," and other relevant topics covering the years 1976 to 2024.

To gather and analyze the data, the Vos Viewer software was utilized, which facilitates the visualization and exploration of relationships between forensic concepts. This software simplifies

the tasks of subject mapping, visual interpretation, gap analysis, and the identification of future research directions. The data analysis was conducted by:

1. Bibliometric mapping involves finding theme clusters through the creation of co-citation maps and keyword networks using Vos Viewer.
2. Trend analysis and a review of how forensic accounting research has changed over time, emphasizing fraud detection methods and artificial intelligence integration.
3. Determining interdisciplinary links and new trends by interpreting the connections between various ideas and domains.

Results

Between 1976 and 2024, 4,716 publications on forensic accounting were identified, indicating significant and growing academic interest (Table 3). 1,203 publications were recorded in the 2021-2024 period alone, accounting for approximately 25% of all publications in this field since 1976. This suggests an acceleration in forensic accounting research in recent years.

Additionally, Table 3 highlights specific emerging themes within forensic accounting. Only 24 papers published between 2005 and 2024 identified the relationship between forensic accounting and corporate social governance. This indicates that the link between forensic accounting and corporate governance is a relatively new but growing area of interest.

Few papers have been identified on the relationship between forensic accounting and digitalization between 2011 and 2024, representing a niche area with potential for exploitation. As artificial intelligence, blockchain, and big data continue to develop, research on digital forensic accounting will likely expand significantly. Another verified link between forensic accounting and the knowledge society highlights the existence of 33 papers from 2007 to 2024, and with an innovative society, 18 papers suggest a moderate level of academic interest in integrating forensic accounting into the knowledge economy and innovation.

Table 3. The results of the investigation for the WoS database

Expression	Entire period (1976-2024)	Last 4 years (2021-2024)
Forensic Accounting	4,716	1,203
Forensic Accounting and Corporate Social Responsibility	24	9
Forensic Accounting and Corporate Social Governance	13	4
Forensic Accounting and Digitalization	6	3
Forensic Accounting and Knowledge Society	33	7
Forensic Accounting and Innovative Society	18	6

Source: Authors' own research.

Based on the conducted research and the utilization of investigative tools, a foundation has been established for several bibliometric aspects concerning forensic accounting. Figure 2 presents 1203 results for the period 2021-2024; after extracting irrelevant words, 157 items were grouped into 8 clusters.

Source: Authors' results using Vos Viewer Software.

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Source: Authors' results using Vos Viewer Software.

Figure 4 presents one of the leading clusters, which shows the connections between various terms and forensic accounting. This group emphasizes the multidisciplinary nature of these fields, the various influencing elements, and aspects of investigating and detecting fraud within organizations and evaluating financial performance.

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Source: Authors' results using Vos Viewer Software.

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Source: Authors' results using Vos Viewer Software.

"Digital forensics" is associated with ideas such as "security," "authentication," "networks," and "digital evidence." Additionally, there are connections between machine learning and concepts like "forensics," "model," "system," and "expertise." Furthermore, relationships between security and terms like "authentication," "privacy," "networking," and "memory forensics" are also relevant.

Figure 6 illustrates a central node labeled "forensics," which connects to several other nodes, including "machine learning," "digital forensics," "forensic accounting," "forensic science," "identification," "prevalence," "fraud," "security," "authentication," "training," "smart contracts," "model," "reliability," "decomposition," and "impact," each representing various subdomains or related topics. The node "machine learning" links to "digital forensics," "identification," and "model." Meanwhile, "digital forensics" connects to "security," "authentication," "training," "memory forensics," and "smart contracts." "Forensic accounting" is associated with "fraud," "impact," "performance," and "science." "Forensic science" connects to "prevalence," "reliability," "identification," and "decomposition." Finally, "prevalence" is also referenced, adding another layer of relevance to the discussion.

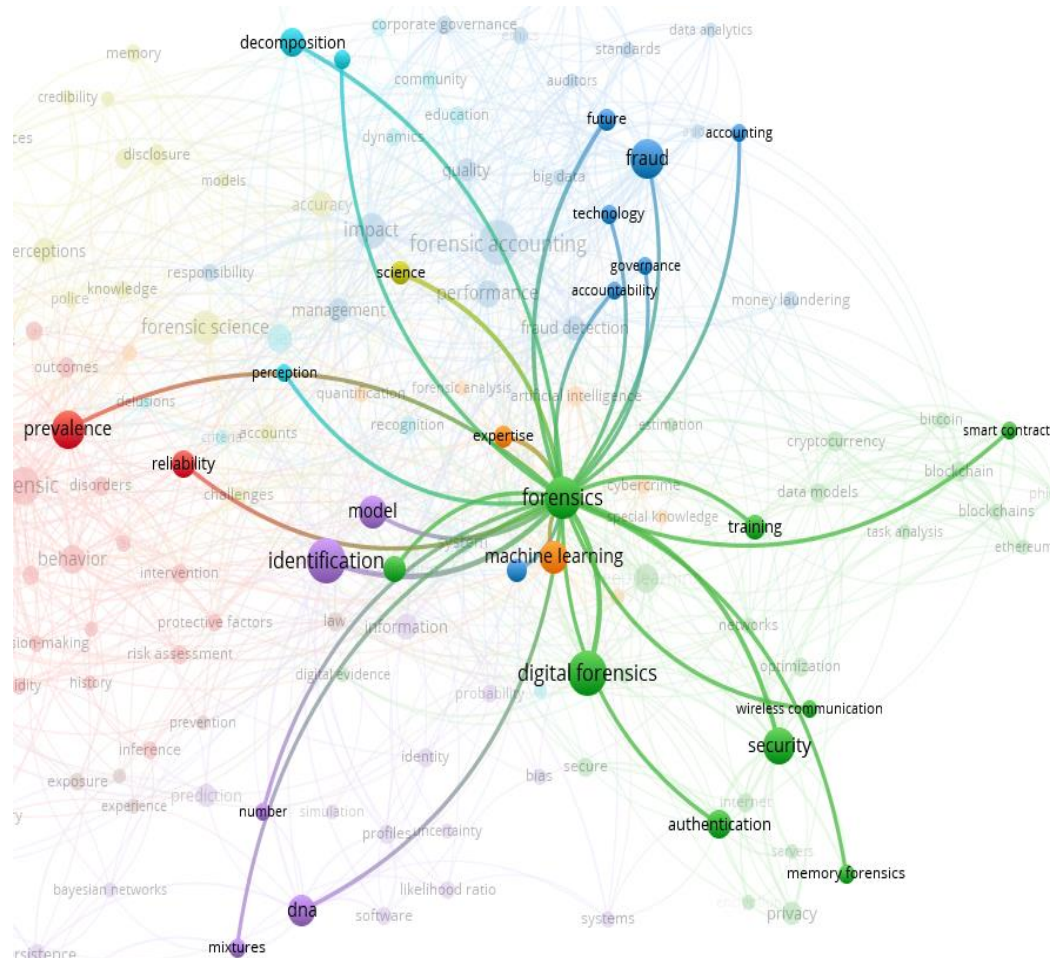


Figure 6. Representation of forensics connections

Source: Authors' results using Vos Viewer Software.

Figure 7 illustrates a complicated network of related terms centered around "fraud." Forensic accounting, digital investigations, security, and other associated subjects enhance this network. The positioning of forensic accounting as a central node with multiple connections

This observation raises several issues, including the authors' diversity and the potential lack of correlation resulting from their disparate publication practices. Some people could put quantity above quality, concentrating on posting content on various platforms rather than going deeper into a specific subject. However, many writers may originate from different professions that relate to the study topic.

Discussions

This study's findings emphasize the increasing importance of forensic accounting in fighting financial fraud and ensuring compliance with regulations. Bibliometric analysis reveals a significant upward trend in research activity, particularly within areas incorporating artificial intelligence, big data, and digital forensics.

Using Vos Viewer Software for bibliometric analysis, a strong interdisciplinary connection between forensic accounting, fraud detection, and digital forensics is highlighted, illustrating its growing significance in the knowledge and innovation society. Co-citation and cluster analyses indicate that forensic accounting research has expanded beyond traditional financial investigations, integrating elements such as artificial intelligence, blockchain technology, and big data analytics to enhance fraud detection efforts.

The keyword mapping further underscores those terms like “digital forensics,” “cybersecurity,” and “machine learning” frequently co-occur with forensic accounting, indicating that the field is increasingly adopting technological advancements to refine investigative methodologies. Additionally, network analysis points to corporate governance, financial transparency, and regulatory compliance as central themes, reinforcing that forensic accounting is a vital pillar of economic governance and fraud prevention in knowledge-driven societies.

A significant finding from Vos Viewer’s cluster analysis highlights the emerging role of forensic accounting in innovation-driven economies, where financial systems are becoming increasingly complex and susceptible to cyber-enabled fraud. The bibliometric mapping reveals strong co-occurrences among forensic accounting, financial technology, and risk management, indicating that forensic accountants are evolving to meet the rapid changes in financial reporting and auditing practices. In an innovative society characterized by continuous technological advancements and digital transformation, there is a pressing need for robust forensic methodologies to analyze financial anomalies, detect fraudulent transactions, and uphold financial integrity. Additionally, identifying knowledge-based clusters, including references to CSR and ESG factors, suggests that forensic accounting serves not only as a tool for fraud prevention but also as a means to promote ethical financial practices and sustainable economic development. These findings emphasize the increasingly interdisciplinary nature of forensic accounting, establishing it as a vital force in enhancing financial security, regulatory compliance, and corporate accountability in the digital economy.

This evolution suggests that forensic accounting is increasingly becoming an interdisciplinary field, merging aspects of technology, law, and financial analysis to bolster fraud detection capabilities. Furthermore, the clustering of research topics reveals a shift towards preventive methodologies rather than reactive approaches, with predictive analytics emerging as a crucial tool for identifying fraudulent activities before they occur. Nonetheless, challenges persist, especially regarding the adoption of advanced forensic tools by practitioners, the need for regulatory harmonization across jurisdictions, and the ethical considerations surrounding AI-driven fraud detection. Future research should aim to refine predictive models, enhance collaboration

between forensic accountants and cybersecurity experts, and establish standardized frameworks for preventing financial fraud.

The fact that 25% of all research in forensic accounting has been published in the last five years indicates a significant surge in interest in this field. This rapid growth might be attributed to factors such as increased financial fraud, more stringent regulatory frameworks, and advancements in forensic technology. Additionally, the limited number of studies focused on digital forensic accounting points to an emerging area expected to accelerate, particularly with the rise of AI-driven fraud detection and blockchain-based financial security.

Furthermore, the relationship between forensic accounting and corporate governance remains underexplored; however, it could become a crucial topic as transparency and financial integrity emerge as global priorities. Forensic accounting research has evolved beyond traditional accounting and auditing, necessitating interdisciplinary collaboration with technology, cybersecurity, and law. The increasing interest in forensic accounting within the knowledge society underscores the need for adaptation to the changing economic and technological landscape.

Conclusion

Forensic accounting has emerged as an essential discipline in detecting and preventing financial fraud, seamlessly integrating expertise from accounting, auditing, law, and cybersecurity. This study underscores the growing academic interest in forensic accounting, particularly in areas such as financial statement manipulation, fraud detection, and the adoption of emerging technologies, including artificial intelligence, blockchain, and big data analytics. A bibliometric analysis reveals that research in this field has significantly expanded in recent years, reflecting the increasing complexity of financial crimes and the necessity for more sophisticated investigative techniques.

The main conclusion indicates that forensic accounting is evolving beyond its traditional boundaries, with a greater dependence on predictive analytics and digital forensics to enhance fraud detection capabilities. The strong interconnections among forensic science, forensic accounting, and regulatory compliance illustrate the discipline's development into a more multidisciplinary and technology-driven field. Furthermore, the study highlights the critical need to strengthen legal frameworks, corporate governance policies, and forensic accounting education in order to keep pace with the evolving nature of fraud schemes.

Looking ahead, the forecasting model anticipates a continued increase in forensic accounting research, propelled by technological advancements and more stringent financial regulations. Future studies should focus on enhancing predictive models, fostering interdisciplinary collaboration, and refining forensic methodologies to effectively address the challenges posed by increasingly intricate financial fraud schemes. As forensic accounting continues to evolve, its role in ensuring financial transparency, regulatory compliance, and fraud prevention will become even more vital in the global economy.

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