

# The Impact of Blockchain Technology on Accounting: A Literature Review

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**Abstract.** This study examines the transformative role of blockchain technology in accounting through a literature review of 99 articles sourced from the Scopus database. The research highlights three primary themes: blockchain's impact on accounting practices, its implications for auditing, and its influence on financial reporting. Using a structured three-step framework – data collection, analysis, and synthesis – this study identifies key trends, research gaps, and future research directions. The findings demonstrate that blockchain enhances data transparency, security, and efficiency while introducing challenges related to integration, regulatory frameworks, and adoption by accounting professionals. This literature review underscores the potential of blockchain to revolutionize accounting through innovations like triple-entry accounting while highlighting the need for standardized guidelines and deeper empirical research. The study provides insights for academics, practitioners, and policymakers seeking to navigate the integration of blockchain technology in accounting systems.

**Keywords:** Blockchain, Accounting, Literature Review.

## 1 Introduction

Blockchain technology in accounting is still in its nascent stages, with significant potential yet to be fully explored. Blockchain is a publicly distributed ledger that is openly accessible and designed to safeguard data against manipulation; where once a transaction is completed, it becomes unalterable and permanent unless the majority of blockchain users reach a consensus to change it [1]. Blockchain was created as a secure system for financial transactions and it has the potential to revolutionize the way transactions are carried out in the business world, marking a significant change from the technological progress of the past century [2], [3].

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Blockchain technology is anticipated to offer several innovative advantages for accounting, including the following [4], [5]. First, it ensures data permanence. Second, it promotes independence among actors, which reduces data duplication and enhances the reliability of transactional information through consensus. Third, it enables intelligent control. Lastly, it encourages close integration [6], [7]. Despite these promising benefits, there is a noticeable absence of literature reviews (LRs) that evaluate the implications of blockchain for accounting. Consequently, we have conducted an LR centered around the research question: “*What are the implications of blockchain technology on accounting, what trends can be identified in research themes, and what existing research gaps are present?*”. This LR contributes by evaluating the implications of blockchain in accounting, pinpointing research gaps, and synthesizing trends to provide future research directions based on the analysis of 99 articles. This study can be of interest to academics, practitioners, and policymakers who aim to grasp the potential of blockchain technology in the field of accounting.

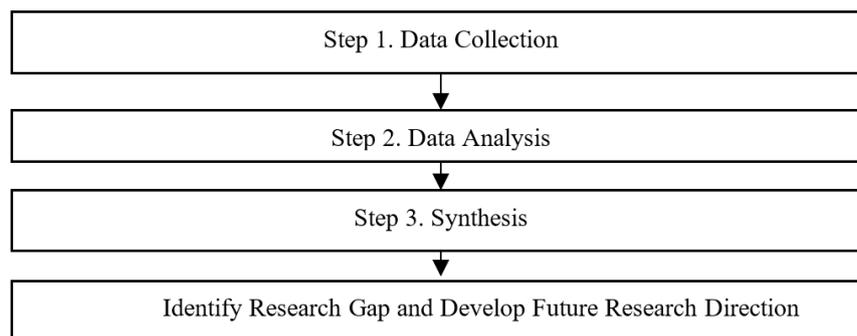
This article is organized as follows. Section 2 describes the methodology. Section 3 gives an overview of selected publications by the frequency distribution of articles, current research themes, and used research methods. Section 4 discusses the current implications of blockchain technology on accounting. Section 5 lists the identified research gaps and suggests corresponding future research directions. Section 6 provides the conclusion of this LR.

## 2 Literature Review Methodology

Reviews are the basis of new research; therefore, selecting the most suitable review methodology hinges on the research question or the specific objective of the review [8]. This study’s LR adheres to a structured three-step framework suggested by Guandalini [8] as follows: (1) data collection, (2) data analysis, and (3) synthesis. As the first step, this study collected articles from the Scopus Database. The rationale behind conducting this LR exclusively using the Scopus database is threefold. First, it provides comprehensive coverage in specific fields. Scopus is recognized as one of the largest abstract and citation databases for peer-reviewed literature, covering a wide range of disciplines, including blockchain technology. It ensures access to a vast array of high-quality, peer-reviewed journals, conference proceedings, and book chapters. Second, the quality of data and indexing standards are paramount. Scopus applies rigorous content selection criteria, focusing on high-impact and well-reviewed sources. This approach guarantees the reliability and scientific integrity of the database, reducing the likelihood of including predatory or low-quality publications. Third, Scopus features advanced search capabilities. It offers powerful tools for refining searches, managing results, and analyzing citations. These features are essential for carrying out reproducible reviews. Fourth, there are time and resource constraints. Conducting a thorough systematic literature review across multiple databases may yield additional results, however, for the purpose of this study, Scopus alone offers sufficient coverage for the study goals. Fifth, there is the issue of redundancy. Many high-impact journals indexed in Scopus are also available in other databases. Relying solely on Scopus can help minimize redundancy in the retrieved records while ensuring a focus on high-quality literature.

This study gathered all journal articles from the Scopus database on 3rd October, 2024, using the search string TITLE-ABS-KEY (blockchain AND accounting ) AND ( LIMIT-TO ( EXACTKEYWORD , “Blockchain” ) OR LIMIT-TO ( EXACTKEYWORD , “Block-chain” ) OR LIMIT-TO ( EXACTKEYWORD , “Blockchain Technology” ) OR LIMIT-TO ( EXACTKEYWORD , “Accounting” ) OR LIMIT-TO ( EXACTKEYWORD , “Triple-entry Accounting” ) OR LIMIT-TO ( EXACTKEYWORD , (“Triple Entry Accounting”) ) OR LIMIT-TO ( EXACTKEYWORD , “Blockchain Technologies” ). This research encompasses all papers from any given year and any publication in the Business, Management, and Accounting subject areas. Using that search string, this study obtained 464 documents. In its second step, this study analyzed those 464 documents collected by content analysis procedure that resulted in 99 articles.

Then, in its third step, this study synthesized all of the 99 articles to identify research gaps and develop future research direction (see Figure 1).



**Figure 1.** Three-Step Framework of Literature Review

### 3 Frequency Distributions of Selected Articles

To give an overview of articles selected for the literature review, in this section, several article frequency distributions are presented. They show how the articles have been distributed over the journals, over the research themes defined by the research question, and over the research methods used.

#### 3.1 Frequency Distribution of Articles by Journals

Table 1 highlights the number of articles published on the relationship between blockchain technology and accounting in various peer-reviewed journals from 2017 to 2024. Understanding the frequency distribution of articles by the journal is essential for grasping the academic landscape surrounding blockchain's impact on accounting practices. This distribution helps pinpoint the leading journals in the field and track the growing interest in this topic over time. As illustrated in Table 1, the distribution of articles over the years indicates that research interest in this area has remained consistently strong.

**Table 1.** Frequency Distribution of Articles by Journals

Frequency distribution of articles by journals	2017-2018	2019-2020	2021-2022	2023-2024	Total
International Journal of Accounting Information Systems	1	2	1	4	8
Journal of Information Systems	1	-	-	1	2
Business Horizons	1	-	-	-	1
Journal of Accounting Research	-	-	1	-	1
The British Accounting Review	-	1	-	1	2
European Accounting Review	-	-	1	-	1
Accounting, Organizations and Society	-	-	-	1	1
Journal of Intellectual Capital	-	1	-	-	1
Journal of Business Research	-	-	-	1	1
Accounting, Auditing & Accountability Journal	-	-	11	1	12
Journal of Accounting and Public Policy	-	-	1	-	1
Review of Managerial Science	-	-	-	1	1
Journal of Theoretical and Applied Electronic Commerce Research	-	-	2	-	2
Review Of Accounting Studies	-	-	1	-	1
Meditari Accountancy Research	-	2	2	-	4

**Table 1. Continued**

Frequency distribution of articles by journals	2017-2018	2019-2020	2021-2022	2023-2024	Total
Research Policy	-	1	-	-	1
Accounting & Finance	-	1	-	-	1
Information Systems	-	1	-	-	1
Technological Forecasting & Social Change	-	2	-	1	3
Electronic Commerce Research and Applications	-	-	1	-	1
Current Issues in Auditing	1	-	-	-	1
Administration & Society	1	-	-	-	1
Industry and Higher Education	-	-	1	-	1
Journal of Accounting & Organizational Change	-	-	1	-	1
Journal of Financial Reporting and Accounting	-	-	1	5	6
Journal of Islamic Accounting and Business Research	-	-	1	-	1
Journal of Corporate Accounting & Finance	-	-	1	-	1
Cities	-	-	-	1	1
Journal of Organizational Change Management	-	-	1	-	1
Intelligent Systems in Accounting, Finance and Management	2	1	-	1	4
Tourism Management	-	1	-	-	1
Australian Accounting Review	1	3	-	1	5
Asian Review of Accounting	-	-	-	1	1
Journal of Accounting, Auditing and Finance	-	-	-	2	2
Innovation & Management Review	-	-	-	1	1
Journal of Business Venturing Insights	-	-	1	-	1
Journal of Innovation & Knowledge	-	-	-	1	1
Government Information Quarterly	-	-	-	1	1
Emerging Markets Review	-	-	-	1	1
Forensic Science International: Digital Investigation	-	-	1	-	1
Intangible Capital	-	-	1	-	1
Omega	-	-	1	-	1
Journal of High Technology Management Research	-	-	1	1	2
Journal of Risk and Financial Management	-	-	-	1	1
Digital Investigation	-	1	-	-	1
Global Finance Journal	-	-	1	-	1
Research in International Business and Finance	-	-	1	3	4
Journal of Industrial Information Integration	-	-	1	-	1
Review of Accounting and Finance	-	-	-	1	1
Data Science and Management	-	-	1	-	1
Risks	-	-	-	1	1
Accounting Perspective	-	4	-	-	4
Complex Systems Informatics and Modeling Quarterly	-	-	1	-	1
<b>Total</b>	<b>8</b>	<b>21</b>	<b>37</b>	<b>33</b>	<b>99</b>

Some journals have shown a proclivity for publishing a significant number of articles related to the interconnection between blockchain and accounting. The top three journals with the highest number of articles are Accounting, Auditing & Accountability Journal (12 articles), International Journal of Accounting Information Systems (8 articles), and Journal of Financial Reporting and Accounting (6 articles).

### 3.2 Frequency Distribution of Articles by Research Themes

Table 2 presents the findings of an in-depth content analysis of 99 articles, identifying three key research themes. We have identified three main themes that help characterize blockchain

technology's impact on accounting. The first theme is how blockchain transforms accounting practice; it was covered in 67 articles. Meanwhile, the second theme addresses the blockchain's impact on auditing; it was covered in 15 articles. In addition, the third research theme focuses on blockchain's impact on financial reporting; and it was covered in 17 articles.

We have split articles into these three categories based on the overall logical framework derived from the general nature of accounting processes and how innovations like blockchain affect them. The theme of how blockchain transforms accounting practice looks at its use in day-to-day accounting processes, as opposed to auditing and financial reporting, both of which concern validation and external communication. On the other hand, the theme of blockchain's impact on auditing has different objectives (i.e., ensure compliance and accuracy) and different stakeholders (auditors and regulators) compared to general accounting, and financial reporting focuses on external communication, which has specific requirements (compliance with regulatory standards) and distinct stakeholders. The classification ensures a comprehensive exploration of blockchain's multifaceted impact, preventing overlap and ensuring clarity for readers.

**Table 2.** Frequency distribution of articles by research themes

Frequency distribution of articles by research themes	2017-2018	2019-2020	2021-2022	2023-2024	Total
Blockchain transforms accounting practice	5	12	29	21	67
Blockchain's impact on auditing	1	6	4	4	15
Blockchain's impact on financial reporting	2	3	6	6	17
<b>Total</b>	<b>8</b>	<b>21</b>	<b>39</b>	<b>31</b>	<b>99</b>

Table 3 shows that the majority of articles are devoted to the impact of the use of blockchain technology in accounting practices, while its impact on auditing and financial reporting is less researched.

### 3.3 Frequency Distribution of Articles by Research Methods

The current study examined 99 selected articles to identify the different research methods used to investigate the relationship between blockchain and accounting. The findings, presented in Table 3, demonstrate a variety of research methods that have significantly contributed to our understanding of the topic. The literature review method is notable for being the most widely used, as it summarizes and synthesizes existing research on a given topic, with 41 articles using this approach. In the context of blockchain and accounting, it entails reviewing published articles to pinpoint patterns and identify gaps in the current research. Examples of articles that utilize literature review methods include studies [2], [9], and [10].

A notable portion of the articles employed the archival method, which was used in 14 articles. This method entails the examination of historical records and data from relevant databases, such as financial documents, transaction logs, and other related materials, to draw definitive conclusions [11]–[14].

Of the research methods identified, the interview method was used in 10 articles analyzed in this study. This method is commonly employed to collect detailed information from experts, offering deeper insights into how blockchain technology affects accounting practices [15]–[18].

Surveys are a well-established and commonly used method for gathering data from larger population samples. From the articles analyzed, the surveys were utilized in 10 articles. The main goal of using survey methods is to collect information from a significant number of participants, allowing for a thorough understanding of the attitudes and behaviors of the target population [19]–[22].

A total of 10 articles utilized case studies to investigate complex issues within real-life settings. Case studies offer a detailed examination of specific instances or events, such as particular implementations of blockchain in accounting, to understand their impact. The examples of research that employed the case study methods are studies [23]–[25].

Additionally, 6 articles employed the experimental method. This method tests hypotheses in a controlled setting, often by simulating a blockchain environment to examine its effects on accounting practices. The examples of research that utilized the experimental method are studies [1], [26], and [27].

Five of the scholarly papers included in our analysis were based on the mixed methods approach. The mixed methods approach combines qualitative and quantitative methods to provide a more comprehensive understanding of the impact of blockchain technology on accounting practices [28]–[30].

Two of the research articles employed the observation method. The observation method involves systematically watching and recording events or behaviors as they occur naturally in real-time. In the context of studying blockchain technology, the observation method could be used to monitor and analyze how blockchain systems are utilized in practice. The use of the observation method in articles [31] and [32] allowed for a more detailed and accurate understanding of the practical implications of blockchain technology.

The least commonly used research method is fuzzy-set qualitative comparative analysis (fsQCA), with only one article utilizing this approach [33]. Fuzzy-set qualitative comparative analysis is a technique for examining cases as configurations of attributes to identify patterns that lead to specific outcomes. This method is particularly valuable for understanding complex phenomena, such as the role of blockchain in accounting.

**Table 3.** Frequency distribution of articles by research methods

Frequency distribution of articles by research methods	2017-2018	2019-2020	2021-2022	2023-2024	Total
Archival	1	1	4	8	14
Interviews	-	2	5	3	10
Survey	-	-	1	9	10
Experiment	1	-	4	1	6
Case Study	-	5	4	1	10
Observation	-	2	-	-	2
Fuzzy-Set Qualitative Comparative Analysis (fsQCA)	1	-	-	-	1
Mixed Method	-	3	-	2	5
Literature Review	5	8	18	10	41
<b>Total</b>	<b>8</b>	<b>21</b>	<b>36</b>	<b>34</b>	<b>99</b>

## 4 The Current Trends in Research Themes and Current Challenges

This section provides an overview of the current research themes related to the interconnection between blockchain and accounting, identified in Table 2. These themes reflect the diverse ways in which blockchain technology is being explored and applied in the accounting domain and offer insights for further investigation and analysis.

### 4.1 Blockchain’s Impact on Accounting Practice

Blockchain technology can transform accounting practices by improving accuracy, reducing fraud, and enhancing the efficiency of accounting processes [34], [35] while it transforms accounting practices with value creation [36], [34]. Blockchain offers the potential for democratization by adopting early double-entry bookkeeping practices of self-enablement through shared knowledge and common projections embracing divergent temporalities [37]. Without embracing these divergent temporalities, blockchain-based accounting risks reducing transactors to mere data traces and accountants to redundant records, thereby undermining the aspirations for democratization and accountability in the digital age.

In the digital age, there are four aspects of obstacles to blockchain adoption such as internal psychological, internal functional, external psychological, and external functional [38]. However, research finds that validity, trust, and the perceived usefulness of transaction data from a distributed ledger are the primary motivators for adopting blockchain [39]. Even accountants have a tendency to adopt blockchain technology, so the government and accounting professional associations should develop training programs about blockchain that will help accountants utilize blockchain [40], [41], [28], [21]. Nevertheless, the professional integrity and expertise of accountants cannot be substituted by the standardized functioning system of blockchain technology [42].

Blockchains enable real-time tracking and verification of sustainability information across multiple parties and stakeholders, integrating smart contracts and IoT devices to automate data collection and validation that improves data security and integrity [29]. Various advancements in accounting practices mirror, employ, or bolster emerging technologies such as blockchain technology [4]. These advancements are seen as new types of intellectual assets that hold the potential to aid in value generation and achieve Sustainable Development Goals (SDGs) [31], [43], [27], [44].

The development of blockchain technology challenges the traditional financial system and offers benefits for emerging and developed economies [45], [30] because it boosts the security of accounting processes, enables asset traceability, automates contracts, and reduces intermediaries [46], [47], [48], [49], [23]. It also offers appealing commercial prospects within financial services, intelligent contracts, and token-oriented business structures [19], [50]. Certain models of self-sovereign identity (SSI) could pave the way for innovative methods of value transfer and economic freedom, impacting accounting procedures and norms [18].

Blockchain also enhances the effectiveness, transparency, and regulatory adherence of VAT procedures in VAT settlement platforms [50], simplifies Sukūk<sup>†</sup> issuances [15], and provides clarity over asset ownership to mitigate terrorist financing [52]. Meanwhile, blockchain technology has minimal impact on the production choices of manufacturers [53]. Therefore, accounting knowledge is needed to make the transition from centralized to decentralized ledger systems by providing insights about design choices, value creation, and management implications [53], [2]. The dynamics of blockchain automation are influenced by a discrepancy between IoT technologies and their administrative oversight, which is essential for accounting and monetization [12], [1]. Therefore, blockchain holds the capacity to revolutionize the accounting field beyond double-entry and into the epoch of triple-entry accounting [54], [55]. Triple-entry accounting (TEA) is introducing a third component to the current double-entry system, permanently recording transactions on a blockchain [10]. TEA could significantly change accounting procedures, although issues concerning technological compatibility, stakeholder influence, regulatory direction [32], information overload, increased energy usage, and the potential disappearance of financial statement audits [16] must be respected.

The advantages of blockchain come with the risks of integration, regulatory compliance, code development, and scalability [58], which necessitate building communities that depend on trust in individuals and technological foresight [59]. Besides that, there are some challenges in understanding the usage of blockchain in accounting, such as existing accounting norms do not accurately address the accounting procedures for digital currencies due to a lack of consensus and clarity on matters such as accounting and auditing standards, regulatory frameworks, trust, transparency, technological innovation, education, research, and collaboration [58], [59].

Blockchain technology and artificial intelligence play a significant part in accounting and auditing practices but are still under-researched [9], [60]–[62] and also meet challenges [63]. Accountants need to understand nine key factors that influence the intention to adopt blockchain in the accounting field [65]: perceived benefits, trialability, complexity, perceived cost, perceived

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<sup>†</sup> A *sukuk* is an Islamic financial certificate, similar to a bond in Western finance, <https://www.investopedia.com/terms/s/sukuk.asp>

privacy risk, insufficient knowledge, organization's innovativeness, top management support, and external pressure.

Nevertheless, adopting blockchain technology not only leads to accounting practice transformation but also can bring substantial intangible benefits to the business if the organization highlights the technological readiness and leadership readiness [35], [64], [65]. In addition, blockchain could reduce the moral contestation and social risks associated with financial services markets [66], [68] with the capability to facilitate secure, transparent, and distributed transactions and record maintenance [67], [26], [69] which is suitable for securities settlement, especially, private blockchain utilizing a proof-of-authority consensus mechanism [70].

## **4.2 Blockchain's Impact on Auditing**

Blockchain technology allows auditors to focus on complex operations and internal control systems rather than repetitive tasks [35], enhanced auditability, automated control, and data reliability [71]. The use of blockchain by audit clients raises the inherent risk and control risk associated with accounting estimates, which are essential for forming professional judgments; therefore, auditors need to enhance information technology competence to understand the design, operation, and governance mechanisms that support the internal control of blockchain [72], adapted to more complex auditing tasks in real-time audit and automated audit procedures [34], [71].

Unfortunately, the perceived sufficiency of accounting standards negatively impacts auditors' intention to use blockchain, diminishing the effect of blockchain knowledge on their intention to use it and revealing existing biases in the use of blockchain [20]. Blockchain, as one of the digital transformation tools, will lead to longer audit times and decreased audit efficiency in non-high-tech companies and accounting firms outside of the Big<sup>‡</sup> although it positively influences audit efficiency in high-tech companies and Big accounting firms [11]. Therefore it is not surprising that the Big 4 accounting firms are already signaling a move toward distributed ledger databases [71].

Based on the information provided in the above referenced sources, it can be inferred that blockchain technology has significant potential to impact the field of auditing. Specifically, the unique structure of blockchain offers several advantages, such as reliable data, privacy, security, scalability, and cost-effectiveness. Additionally, there appears to be a positive correlation between an auditor's understanding of blockchain and their willingness to adopt it. Interestingly, professional skepticism does not significantly impact this willingness, while the perceived adequacy of accounting standards negatively influences it. Another important consideration is the potential impact of the digital transformation process on auditing practices. Businesses lacking digital proficiency, non-high-tech firms, and non-Big accounting firms may experience extended audit durations and reduced efficiency. Conversely, high-tech firms may benefit from increased transparency, lower business risks, and more reliable and intelligent audit procedures due to digital transformation. However, the adoption and effects of blockchain technology in auditing practices also depend on other factors, such as technological preparedness and regulatory considerations.

## **4.3 Blockchain's Impact On Financial Reporting**

Optimal information disclosure and blockchain adoption decisions depend on factors such as consumer readiness to spend, understanding of transparency, information reliability, the cost of transparency, and market competition [72]. Economic exchanges can be modeled and executed in a shared ledger using blockchain, enhancing the quality of accounting data, data transparency, and trust among the involved parties related to financial reporting [7]. Empirical evidence shows that blockchain technology significantly positively impacts trust in financial reporting, mediated by the

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<sup>‡</sup> Measured by revenue, the Big Four global accounting firms include Deloitte, Ernst & Young (EY), PricewaterhouseCoopers (PwC), and Klynveld Peat Marwick Goerdeler (KPMG), <https://www.investopedia.com/terms/b/bigfour.asp>

use of smart contracts [73]. The influence of blockchain on the quality of accounting data is similar for both publicly traded and privately held companies [25]. Blockchain can efficiently address several issues related to financial reporting and auditing, thereby holding considerable promise for improving data trustworthiness in financial reports and transforming business operations [74]-[76]. Blockchain can lead to increased disclosure of non-financial information, such as sustainability and corporate social responsibility data [34].

Blockchain not only improves the accuracy of financial data representation [77] but also has applications in policy-making and society [76]. However, the transparent nature of transactions in blockchain systems presents both advantages and risks to businesses and other participants. While these transactions enable business intelligence analysis, increase transparency and accountability, and aid in compliance and auditing, they also risk revealing confidential or proprietary data, enable deceptive and manipulative transactions, and lead to uneven information distribution and conflicts of interest. Thus, blockchain systems must balance information accessibility and protection, considering the motivations and actions of various participants [79].

Empirical data indicates that supplier companies enhance their earnings management following their clients' adoption of blockchain. This suggests that blockchain implementation can unintentionally influence the quality of financial statements due to market expectations and reduced scrutiny by investors and analysts [78]. Additionally, non-financial factors and informal financial practices significantly influence the unbanked, who prefer blockchain disintermediation over traditional methods. For blockchain entrepreneurs targeting this group, it is essential to consider five key factors: cash preferences, lending habits, money transfer practices, identification challenges, and existing system constraints [33].

The accounting methods for digital assets vary and are inconsistent in practice, stemming from the absence of definitive guidance and specific accounting standards [79]. Existing guidelines might not adequately capture the essence and intent of digital assets, potentially hindering the clarity and comparability of financial data. There is a need for either a new distinct standard or modifications to current standards to address the complexities of digital assets and to offer a more accurate depiction of their value and performance. Moreover, the advent of blockchain technology has facilitated the generation and exchange of crypto assets, presenting new challenges and opportunities for accounting regulation, practice, and research [80]. Blockchain technology facilitates the creation and trade of cryptocurrencies as alternative monetary forms in new transactions, assets, and business structures that current accounting norms and regulations inadequately cover [81].

Accounting standards mandate the valuation of cryptocurrencies at fair value, a task complicated by the fragmented and volatile nature of cryptocurrency markets. Therefore, current accounting standards might not be sufficient for this emerging asset category [82]. Initially, the IASB<sup>§</sup> resisted the demands of some national standard setters involved in a cryptocurrency project. Later, the IASB requested the IFRS<sup>\*\*</sup> Interpretations Committee (IC) to release an agenda decision to protect its regulatory status, which was threatened by initiatives from national standard setters. This decision still falls short of the expectations of constituents and some IASB members [83].

Regarding Initial Coin Offerings (ICO)<sup>††</sup>, which are highly unstable and fluctuate with the prices of Bitcoin and Ethereum, regulatory measures for ICOs have rapidly proliferated worldwide. Various countries implement diverse strategies, ranging from encouraging to restrictive. The regulation of ICOs impacts their geographical distribution and financing, as well as the incidence of fraudulent activities and opportunistic behavior. ICOs are a global phenomenon, exhibiting growing geographical diversity and redistribution over time. ICOs tend to gravitate toward countries with either less stringent or more favorable regulations or to evade regulation entirely [84].

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<sup>§</sup> The International Accounting Standards Board, <https://www.iasplus.com/en/resources/ifrsf/iasb-ifrs-ic/iasb>

<sup>\*\*</sup> <https://www.ifrs.org/>

<sup>††</sup> [https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/696167/EPRS\\_BRI\(2021\)696167\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/696167/EPRS_BRI(2021)696167_EN.pdf)

## 5 Identified Research Gaps and Suggested Research Directions

Based on the information provided in Section 4, several deductions can be made regarding the implementation of blockchain technology in accounting and financial reporting. First, the successful implementation of blockchain depends on factors such as consumer readiness to incur associated costs, transparency, reliability of information, market competition, and other relevant factors. Second, the use of smart contracts mediates the significant impact of blockchain technology on trust in financial reporting. Third, the effect of blockchain on the quality of accounting data is consistent across both public and private companies. Fourth, blockchain transactions present both opportunities and challenges to businesses and other stakeholders, necessitating a balance between information availability and safeguarding. Fifth, the improvement of earnings management by supplier companies following their clients' adoption of blockchain technology suggests that the implementation of blockchain can inadvertently affect the quality of financial statements. Lastly, due to the lack of clear guidance and specific accounting standards, the accounting methods for digital assets are varied and inconsistent in practice, necessitating the need for a new standard or amendments to existing standards to address the complexities of digital assets. These findings underscore the importance of further research to facilitate the adoption and implementation of blockchain technology in accounting and financial reporting.

From 99 articles analyzed, this study has found several research gaps that are summarized in this section providing also the directions for corresponding further research.

The first research gap is that *current studies often lack a thorough theoretical foundation*, concentrating more on practical applications and benefits. Future research must explore multiple theoretical avenues, for it is important to comprehend the complicated issues at hand. We need many strong models that will guide the integration of blockchain technology in accounting.

*Scarcity exists in empirical research on actual implementation*, and this draws attention to the second research gap. The introduction of blockchain technology is important in transforming how accounting works in real-world scenarios by providing greater transparency, and efficiency. Future research should actively explore more empirical studies, including case studies and longitudinal research.

The third research gap is *the missing of standardized accounting regulations and guidelines*. Future research should propose solutions to advocate standardized accounting regulations and guidelines. The development of international standards for blockchain technology in accounting will guarantee consistency and promote trust among businesses, helping them manage financial data and business transactions using blockchain technology effectively.

Several *scalability challenges and economic feasibility using blockchain technology concerns* mark the fourth research gap. The quality of being dependable, which is often referred to as reliability, is attractive in multiple business contexts. Researchers should conduct future studies to uncover many understandings and improvements focusing on solving scalability problems and providing a cost-benefit analysis for blockchain technology.

The fifth research gap is *the lack of understanding and awareness of blockchain technology*. Many businesses are increasingly adopting blockchain technology for accounting purposes but, they lack understanding and awareness of blockchain technology. Future research can answer this fifth research gap by investigating factors that influence the level of understanding and awareness among businesses.

The sixth research gap is *the underexplored impact of blockchain technology on SMEs and non-profit organizations*. Many small and medium enterprises (SMEs) and non-profit organizations overlook how blockchain technology importantly affects them. Therefore, future research should investigate how blockchain technology can be tailored to meet the unique challenges and opportunities of SMEs and non-profit organizations in adopting blockchain technology.

## 6 Conclusion

This literature review highlights the transformative potential of blockchain technology in accounting, focusing on its impact on practices, auditing, and financial reporting. Blockchain offers significant benefits, such as improved transparency, enhanced data security, and increased efficiency, positioning it as a game-changer for accounting systems. However, challenges such as regulatory compliance, technological scalability, and integration complexities persist. This systematic literature review identified research gaps, including a lack of empirical studies on blockchain's real-world applications, insufficient theoretical frameworks, and a need for standardized accounting guidelines. Addressing these gaps requires collaborative efforts from academia, industry, and policymakers. Future research should explore the scalability and economic feasibility of blockchain adoption, develop international standards, and design effective training programs for professionals. By addressing these areas, the accounting field can fully leverage blockchain's potential, paving the way for innovations such as triple-entry accounting and ensuring its role in fostering sustainable and transparent financial ecosystems.

The literature review covered 99 articles identified using Scopus resources. Using only one research index can be considered as a limitation of this review and the use of other scientific databases can be targeted in future research. Nevertheless, the review gives an overview of the current state of the art regarding the impact of blockchain on accounting in line with auditing and financial reporting, which are closely related to accounting. It highlights the research gaps and potential corresponding further research directions. The provided information can be useful for academics, practitioners, and policymakers seeking to navigate the integration of blockchain technology in accounting systems.

**Authors' note.** Focusing only on the most practically useful issues, the article has not reflected all the details of the conducted literature review. If additional references and source traceability links are needed, they can be requested from the article's authors.

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