



# BLOCKCHAIN TECHNOLOGY CONCEPTION AMONG ACCOUNTING PROFESSIONALS

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Article DOI: <https://doi.org/10.36713/epra17965>

DOI No: 10.36713/epra17965

## ABSTRACT

Blockchain is a computer network-based dispersed and decentralized ledger system that keeps track of transactions. It is sometimes used synonymously with cryptocurrencies like Bitcoin. This technology, which offers advantages like transparency, immutability, efficiency, and security, has enormous potential to change many facets of accounting. For the accounting sector, blockchain's capability to offer a single, consensus-based source of facts for financial data is essential. With blockchain, real-time accuracy and transparency are ensured as all authorized participants can access a synchronized version of the ledger. This research aims to study the understanding and perception of the accounting profession regarding blockchain technology. The data of 100 respondents was collected, and the researcher performed factor analysis and regression testing were performed. The finding revealed that accounting professionals have a reasonable understanding of blockchain technology and help to enable real-time information updating to lessen the time and resources needed for reconciliations and audits.

**KEYWORD:** Accounting Professionals, Adoption Capacity, Blockchain Technology, Perception change, Understanding.

## INTRODUCTION

Blockchain, the most hyped technology in the recent decade since established in 2008, was founded by Satoshi Nakamoto (Bonyuet, 2020). The blockchain is a crucial technique for Bitcoin (Zheng et al., 2018). Banks and governments play the middleman in making financial transactions before Bitcoin (Hutt, 2018). A chain comprising blocks is a blockchain. Per block possesses data, a hash, and the prior block's hash. The identification of the block is specified by its hash, a unique combination of letters and numbers. Two hundred fifty-six bits are the standard size of many hashes. Hexadecimal numerals are typically used to represent hashes since they allow for saving some digits. The same 0 to 9 integers used in the decimal system are also used in the hexadecimal system, plus six more digits. The hash of the most recent block references the previous block that makes up the chains of blocks. Using a hashing algorithm, the hashing function produces unexpected results from input (Vujicic et al. 2018). The smart contract verifies that the transaction is valid as per the government's rules connected to the computers and nodes.

A shared ledger called blockchain makes it possible to store verified transaction data in an ineradicable manner. Because a ledger, at its core, constitutes an accurate record of corporate activity, The Economist dubbed blockchain the "trust machine" (Blossey et al., 2019).

The audited information of firms that the auditors' audit escalates people's trust. Auditors are subject to strict regulations, independent of the organizations they audit, professional codes of conduct, and auditing standards. In order to give a reasonable assurance on the absence of significant misstatement in an entity's financial statements and, depending on the engagement, the efficiency of a company's internal controls over financial reporting, they employ impartiality and professional skepticism.

Blockchain technology is seen to be the most core technological advancement that has the potential to alter company operations and business processes fundamentally. Thus, the conventional audit model can also undergo adjustments. According to some research, the decentralized nature of blockchain technology may completely replace the necessity for a publicly certified auditor to audit financial statements (Wang et al., 2020).



## LITERATURE REVIEW

**Wang, K., et al. (2020)** examine the effects of blockchain features on current audit procedures and explore the potential of incorporating immutability, distributed ledgers, and real-time settlement into the auditing industry. A conceptual model for a blockchain-based auditing communication system based on a systematic analysis is proposed in this study. This model offers solutions for implementing blockchain technology in auditing, greatly enhancing auditing efficiency and effectiveness and encouraging the shift from the current auditing paradigm to real-time, ongoing, and smart auditing.

**Bell, L. et al. (2018)** said that several proofs of concept integrate blockchain technology into the healthcare sector, but adoption still faces significant challenges. The healthcare sector's innate aversion to changing its present practices, particularly about organizational, structural, technical, and human elements, will be one of the biggest obstacles.

**Cole, R., et al. (2019)** have focused on the perspective of operations and supply chain management (OSCM) for promoting research into examining blockchain technology, suggesting conceivable use cases, and outlining a research plan for the future. End-to-end supply chain translucency has been hailed as the newest answer, which is additional vital than ever, given worries about the provenance. Blockchain has been promoted as the latest way to achieve this aim. However, a paucity of research connects OSCM to blockchain technology. This report consequently compliments the work of Buyukozkan and Goçer (2018) on digital supply chains, which overlooked blockchain technology. It acts as a general call to action for OSCM scholars to conduct additional research into the prospects that blockchain may offer to OSCM.

**Chang, S. E. et al. 's (2020)** study intends to examine emerging trends, prospective uses and how blockchain technology is used in supply chain management. From a literature review perspective, this analysis contributes to the application of blockchain in supply chain management and suggests a roadmap for these applications. The researcher emphasized future endeavours addressing technological adoption or diffusion, block-supply chain integration, and their social consequences.

**Schmitz, J. et al. (2019)** research, which is pertinent and topical for academics and practitioners in accounting and auditing, examines blockchain technology and its critical effects on those fields. The researcher discovers that the topics most frequently mentioned in academic works and professional sources include intelligent contract applications, blockchain-enabled continuous audits, trust challenges, transparency, governance in the blockchain ecosystem, and the paradigm change in the responsibilities of accountants and auditors. These four themes give concrete recommendations for accountants and auditors on handling blockchain development. Additionally, this paper recommends further investigation into accounting and auditing in the age of blockchain technology.

**Moosavi, J. et al. (2021)** researchers use network analysis and bibliometric to undertake a systematic evaluation to determine how blockchain might benefit supply chain management. It was found that smart contracts and the Internet of Things (IoT) are the key arising technologies in the field. The findings of favourably referenced and co-cited studies show how blockchain might enhance supply chain management's information security, transparency, efficiency, and traceability. The study also showed that there is little empirical research in this area. Consequently, incorporating blockchain into the actual supply chain is a significant area for future research.

**Chang, A. et al. (2022)** provides a detailed examination of BCT's elements, applications, and commercial consequences. This Blockchain-centered study, in particular, discloses the current state and defines future research directions by assessing and analyzing 2265 recent articles that demonstrate the broad application of BCT. Traceability is illustrated to be the main factor direct Blockchain Technology's implementation in supply chain management (SCM), and it is a result of various BCT qualities. Furthermore, we found that while research on BCT has been steadily increasing in government, healthcare, and supply chain management, it has also decreased in cyber security and banking. Geographically, the top three countries with publications on Blockchain Technology are India, the US, and China. The last phrase emphasizes the potential for Blockchain Technology related research in environmental sciences and agricultural.

To identify possible areas for more scientific exploration and to present a framework for influence of blockchain on accounting practices, **Bellucci, M et al (2022)** analyzed the academic literature on using blockchain in accounting practice and research. Blockchain may impact accounting research and practice in a variety of ways. The paper goes over why practitioners are drawn to this technology, including value-chain management, the inalterability of transactions, triple-entry bookkeeping, the automation of monotonous tasks that don't needed conscious decision-making, and the representation of cryptocurrencies in financial statements. It also offers more study areas and cutting-edge accounting research on blockchain.



The **Garanina. T. et al. (2022)** analyze the future of this emerging field of study, identify current trends, and assess and criticize the primary research subjects. Since blockchain is still a relatively new accounting issue, most publications are normative. The 4 most often conferred aspects of blockchain are the regulation of crypto assets, new problems for auditors, potential and challenges of applying BCT, and roles of accountants changes. There will still be a demand for these positions even if blockchain is expected to disrupt the accounting and auditing industries. Because of the complete amount of data that blockchain records, both professions may transition from lower-profile advisory roles where to verify transactions auditors are called upon ex-ante and even entire ecosystems to higher-profile advisory roles, and to match competitive intelligence with business strategy, accountants are there.

After identifying a typical accounting situation, **Centobelli. P. et al. (2022)** propose and investigate a conceptual framework on blockchain technology related to accounting system. Three scalability levels comprise the framework: 1) A distributed database with peer-to-peer storage is based upon a technological infrastructure. 2) An intermediate level where permissions and validation are used to ensure increasing levels of control. 3) A higher level where the system allows business and security applications to be integrated. This system's deployment depends on a private network of nodes for transaction validation.

**Pimentel. E. et al. (2020)** reviewed both fields of literature and identified places where the two fields have something in common, the essay tries to close the gap between practitioners and academics. Even though academics have started investigating how the accounting profession could alter in reaction to blockchain, current study mostly focuses on the auditing sector. Practitioners, for their part, have widened their focus to give financial reporting and taxes of crypto assets a high priority. Extending the conversation about blockchains and accounting beyond its present focus on audits and accounting information systems.

**Almutairi. K. et al. (2023)** focus on defining the requirements and obstacles for applying blockchain to the supply chains for renewable energy sources. It also rates the identified obstacles according to how likely they are to cause process disruptions. In a case study of Iran's renewable energy supply chain, the recommended structure is applied. The concepts of grey numbers and grey evaluation based on distance from average solution (EDAS-Gray) are integrated into the grey stepwise weight assessment ratio analysis (SWARA-Gray) and grey evaluation to rank the difficulties in this study. The findings are validated using a different set of hybrid approaches, such as the grey-weighted sum method (WSM-Gray), the grey complex proportional assessment (COPRAS-Gray), and the grey methodology for order of preference by similarity to ideal solution (TOPSIS-Gray). The rankings produced by each of these methods exhibit a strong connection. The most significant barrier to adopting blockchain in supply chains for sustainable energy is "high investment cost" among the identified issues.

## CONCEPTUAL FRAMEWORK AND OPERATIONAL DEFINITION

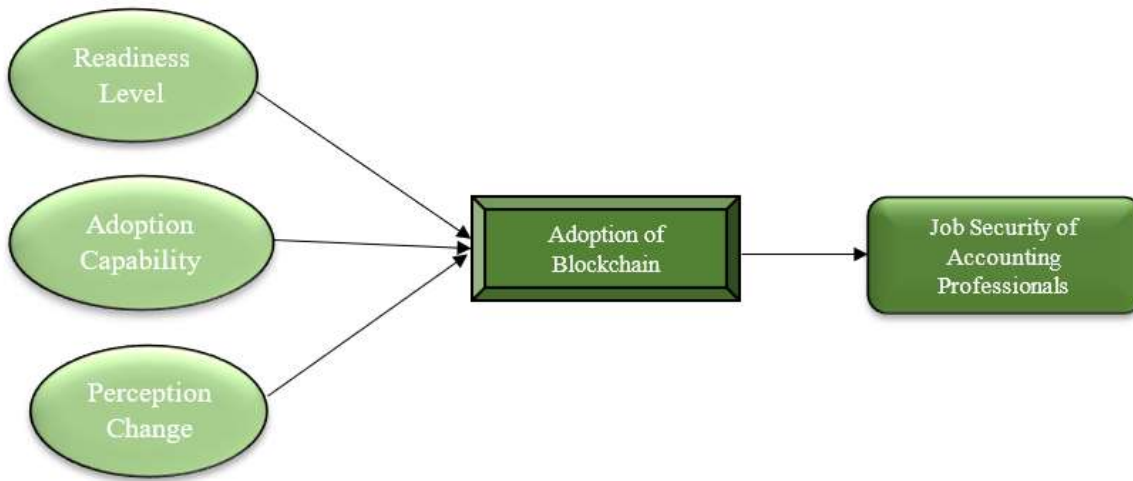
**Readiness level:** One of the initial things one should have concerning new technology is the readiness level, which means understanding or adopting a particular technology. The readiness level will help to know the willingness of auditors and accountants to adopt blockchain technology. The researcher focuses on preparedness to use the technology and tackle the challenges, including what is easy and how quickly auditors and accountants will accept blockchain technology.

**Adoption Capability:** Adoption capability scrutinizes familiarity with and required skills for using blockchain technology. The competence level, efficiency, and effectiveness of using technology among auditors and accountants have been examined.

**Perception Change:** According to the researcher, perception change is a particular way of looking at blockchain technology from the auditors' and accountants' points of view, whether using blockchain technology will provide them with job security. This will help to understand the feelings of auditors and accountants regarding the adoption of blockchain technology. The focus is on the mindset and perspective of auditors and accountants that, with the increased use of blockchain technology, has made their work easier and saves time to concentrate on other work or is just a threat to their job and will replace them.



Figure:1 Conceptual Framework



Source: Researcher Compilation

## OBJECTIVE

1. To analyze the understanding level of blockchain among accounting professionals.
2. To analyze the impact of blockchain technology on job security of accounting professionals.

## HYPOTHESIS

- H01** There is no significant impact of the readiness level of accounting professionals on understanding blockchain technology.
- H02** There is no significant impact of the adoption capacity of accounting professionals on an understanding of blockchain technology.
- H03** Perception change has no significant impact on accounting professionals' understanding of Blockchain technology.
- H04** Blockchain Technology has no impact on the job security of accounting professionals.

## METHODOLOGY

The researcher has employed a survey to collect data on the adoption of blockchain technology. The questionnaire contained questions about readiness level, adoption capability, and accounting professionals' perception of blockchain technology. The sample consists of accounting professionals. The sample size was 100 accounting professionals. The researcher has used various tools and techniques to test the understanding of blockchain technology among accounting professionals. The use of blockchain technology by accounting professionals and its influence on the job security of accounting professionals have been studied using the factor analysis technique and regression analysis.

## RESULTS AND ANALYSIS

Table 1 shows that the male respondents are 54% and female respondents are 46%. Most of the respondents are from the 25-35 years age group, which is 58%, and the least are from 56 and above, i.e., 8%. Most of them have income between 25001-50000. The data shows that most of the respondents are accountants.



**Table 1: Descriptive Demographic Statistics.**

Particular	Frequency	Percentage
<b>Gender</b>		
Male	54	54.0%
Female	46	46.0%
<b>Age</b>		
25-35 Years	58	58.0%
36-45 Years	22	22.0%
46-55 years	12	12.0%
56 and above Years	8	8.0%
<b>Income</b>		
Upto 10000	18	18.0%
10000-25000	78	12.0%
25001-50000	19	26.0%
50001-100000	15	24.0%
Above 100000	12	20.0%
<b>Occupation</b>		
Accountant	48	48.0%
Auditor	16	16.0%
CA	12	12.8%
CS	6	6.0%
CMA	18	18.0%

**Factor Analysis**

Factor analysis is mainly used in this study to limit the amount of data needed for analysis. Exploratory Factor Analysis is analyzed using the principal component approach in this data analysis. The essential premise of the parametric test, that the data are standard, was verified (Hair et al., 2015). Additionally, EFA is utilized for data analysis using Kaiser-Meyer-Olkin (KMO), and the appropriateness was examined using Bartlett’s test of sphericity (Hair et al., 2010).

The acceptable limit of KMO is >0.6. The value of KMO is 0.662 in Table 2, which is slightly higher than the permissible limit, and for factor analysis, the sample is adequate. Bartlett’s test of sphericity tests the hypothesis of whether the population correlation matrix is an identity matrix. Bartlett’s test of sphericity shows a significant value of 0.001 in Table 2, showing that the factors extracted from the variables are correlated.

**Table 2: KMO and Bartlett’s Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.662
Bartlett’s Test of Sphericity	Chi-Square	640.606
	df	153
	Sig.	<.001

Source: SPSS

Seven important components with multiple eigenvalues were identified in the Total Variance Explained analysis. As shown in Table 3, these seven components account for 71.88% of the total variance, which is more than 60% (Hair et al., 2010) and suitable for the next steps.

**Table 3: Total Variance Explained**

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative%
1	4.855	26.972	26.972
2	1.945	10.804	37.776
3	1.483	8.241	46.018
4	1.309	7.275	53.293
5	1.258	6.987	60.280
6	1.053	5.847	66.127
7	1.035	5.752	71.880

Source: SPSS



The varimax approach was utilized for factor loading in the rotated component matrix. The factor loading for each statement is displayed in Table 4. All of the statements' loading values are more than 0.5, which is regarded as good. Component 1 explains the factor related to the variable perception of accounting professions towards blockchain. All the factors have a loading value of more than 0.5, which displays a good relation and is correlated. Likewise, Component 2 explains the factor related to the variable readiness level of accounting professions to adopt blockchain. All the factors have loading values of more than 0.5, which display a good relation and are correlated. Component 3 explains the factor related to the variable adoption capacity of accounting professions of blockchain. All the factors have a loading value of more than 0.5, which displays a good relation and is correlated to each other. Other components, i.e., 4, 5, 6, 7, are not relevant in this because they are dependent variables.

**Table 4: Rotated Component Matrix**

Components	1	2	3
P7 (Enhance your career through improving abilities and competencies.)	.800		
P4 (Blockchain Technology is a revolution in the accounting practices)	.761		
P6 (Blockchain technology will play significant in long run.)	.698		
P2 (Easy to learn)	.662		
P1 (Using blockchain increases performance efficiency and decreases working hours.)	.651		
P5 (Blockchain Technology is convenient in accounting professionals.)	.579		
R2 (Understand the use of Blockchain technology.)		.860	
R1 (Knowledge about Blockchain technology.)		.835	
R3 (Willingness to adopt blockchain chain technology.)		.590	
R4 (Need time to adopt blockchain technology.)		.794	
A1 (By upgrading your own skill to use blockchain technology.)			.652
A2 (By enhancing IT skill.)			.620

**Regression Analysis**

The hypothesis tests if the adoption of blockchain technology significantly impacts the job security of accounting professionals. The dependent variable job security of accounting professionals was regressed on the adoption of blockchain technology to test hypothesis H04. The job security of accounting professionals do not significantly predict the adoption of blockchain technology,  $F(1,98) = 1.660, p < 0.001$ , which indicates that the adoption of blockchain technology cannot play a significant role in shaping the job security of accounting professionals ( $b = .106, p < .001$ ). These results indicate that there is no positive adoption of blockchain technology. Moreover, the  $R^2 = .276$  depicts that the model explains 27.6% of the variance in the job security of accounting professionals. Table 5 shows the summary of findings. The null hypothesis, i.e., H04, is accepted here, which means there is no threat to the job of accounting professionals by adopting blockchain technology.

**Table 5: Regression**

Hypothesis	Regression Weights	Beta Coefficient	R <sup>2</sup>	F	p-value	Hypotheses Supported
H <sub>04</sub>	Adoption of blockchain technology → Job security of accounting professionals	.106	.276	1.660	.201	Supports null hypotheses

Note:  $p < 0.05$

Source: SPSS

**FINDING AND DISCUSSION**

As the study shows, accounting professionals' readiness level significantly affects the adoption of blockchain technology. H01 - There is no significant impact of readiness level of accounting professionals on adoption of blockchain technology. This hypothesis has been rejected, and alternate hypotheses have been accepted that show accounting professionals understand and know about



blockchain technology and also say that they need time to adopt it. This also indicates that they are willing and ready to adopt blockchain technology. This is clear from table 4, where the variable readiness level factors correlate with each other.

H02 There is no significant impact of the adoption capacity of accounting professionals on the adoption of blockchain technology. This hypothesis has also been rejected, and an alternate hypothesis has been accepted that shows accounting professionals are ready to improve their skills by learning about the use of blockchain technology. The variable adoption capability shows a correlation with the adoption of blockchain technology. This is shown in Table 4, where all the factors of variable adoption capability are correlated.

H03 Perception change has no significant impact on accounting professionals' understanding of Blockchain technology. This hypothesis has also been rejected, and an alternate hypothesis has been accepted that shows their perception of blockchain technology. They think that blockchain will increase their performance efficiency and save time. They believe that learning blockchain technology is easy and that improving their abilities will enhance their career. Variable perception change has an influence on the adoption of blockchain technology, as can be seen in Table 4.

H04 Blockchain Technology has no impact on the job security of accounting professionals. This hypothesis has been accepted, and an alternate hypothesis has been rejected that shows the variable adoption of blockchain technology has no impact on the job security of accounting professionals. This is shown in Table 5, where the  $p\text{-value} > 0.05$ , which indicates that the null hypothesis is accepted. Accounting professionals' jobs are not affected by the adoption of blockchain in companies, industries, institutions, and organizations. Accounting professionals will be required to operate the technology. They just need to enhance their skill according to the requirements of the companies, industries, institutions, and organizations.

This shows that accounting professionals are ready to adopt the blockchain. The adoption capability of accounting professionals also indicates that they want to upgrade their skills to keep track of changing scenarios. The digitalization era changed the way of working from manual to computerization, and advanced tools for accounting are now being used. This study also shows that accounting professionals have changed their perception regarding the use of advanced technology. They have started adopting advanced technology, i.e., blockchain technology, in their field. They have begun understanding blockchain technology and upgrading their skill accordingly, which is helpful for them.

With the advancement in technology, the job of accounting professionals has become easy, and they are upgrading their skills to adapt to the changing scenario. The model explains that the job of accounting professionals is secure. There is no threat to their job with the adoption of blockchain technology. Moreover, technology makes jobs more accessible and saves them time, which they can utilize in other vital jobs.

## CONCLUSION

Since its beginnings in 2008, blockchain technology has become one of the most heralded technologies. Companies are anticipated to invest close to \$3 billion in blockchain-related technology in 2019, according to International Data Corporation (IDC), a market intelligence company (International Data Corporation, 2019). According to Atzori (2015), the blockchain can reconstruct politics and society. Blockchain is the underlying technology first used as a public ledger to record all cryptocurrency transactions (Vijai. C. et al., 2019). The NASSCOM Blockchain Report 2019 states that blockchain technology adoption in India is expanding quickly and that over \$20 billion has been invested in blockchain-based initiatives across various sectors (Singla, 2019). Blockchain is a definitive source of truth and an indispensable ledger. The conventional method of accounting involves keeping financial records in private ledgers and using accountants to compare them to equivalents held by third parties. The easiest way to describe blockchain is as distributed ledger technology (DLT), another name for it (Vijai, C., 2019). Its high security, cheap cost, and high accessibility are revolutionizing the way that private transactions are recorded. It has a significant potential for spread and adaption (ALSaqa, 2019; Rindasu, 2019). Researcher Ian Grigg created what is thought to be the first blockchain application in accounting in 2005 (Griggs, 2014).

Blockchain has a significant influence on accounting professionals' jobs. The Blockchain has a significant influence on accounting professionals' jobs. The study analyzes the model where the adoption of blockchain was measured with variables. The first variable is the readiness level. The researcher examines whether accounting professionals are ready to adopt blockchain technology, and the study reveals that they are keen to embrace it. This is shown in Table 4, where factors of readiness level show values of 0.860, 0.835, 0.590, & 0.794 in Column 2, indicating a strong relationship between the factors. The second variable is adoption capability. The researcher examines whether accounting professionals are familiar with blockchain technology and have the required skills to operate it. The study indicates that they had upgraded their skill in using technology. This is shown in Table 4, where factors of adoption capability show values 0.652, & 0.620 in Column 3 of the rotated component matrix, indicating that factors are correlated. Perception change is the third variable taken by the researcher to understand the opinion of accounting professionals regarding the



threat or opportunity they earned. This is shown in Table 4, where factors of perception change show the value 0.800, 0.761, 0.698, 0.662, 0.651, and 0.579 in Column 1, indicating a strong relationship between factors.

In conclusion, the conventional landscape of financial record-keeping and auditing is changing dramatically with the use of blockchain technology by accounting professionals. Blockchain's decentralized and transparent structure improves financial data security and integrity while streamlining operations and lowering the possibility of mistakes and fraudulent activity.

Accounting experts are starting to see how blockchain may completely transform their industry by providing an unchangeable, tamper-proof ledger that guarantees the integrity and accuracy of financial data. Reducing the time and resources needed for reconciliations and audits is made possible by removing intermediaries and the real-time updating of information. The blockchain technology's intelligent contract feature also automates many financial transactional activities, improving accounting procedures even more. Establishing confidence among stakeholders and facilitating regulatory compliance are two benefits of being able to track and validate each transaction transparently and safely.

Cooperation within the sector becomes essential as accounting experts investigate and implement blockchain technologies. Promoting interoperability and facilitating smooth communication between various entities would be made more accessible by establishing common standards and protocols for blockchain deployment. This cooperative strategy will encourage the broader use of blockchain technology in the accounting industry while bolstering its legitimacy.

Professionals in accounting are essentially thinking about blockchain as a paradigm change toward a financial environment that is safer, more transparent, and more efficient. Adopting this technology might ultimately aid auditors, organizations, and other stakeholders in pursuing fast, accurate, and trustworthy financial information by revolutionizing how economic data is maintained.

## REFERENCES

1. Zheng, Z., Xie, S., Dai, H. N., Chen, X., & Wang, H. (2018). *Blockchain challenges and opportunities: A survey*. *International journal of web and grid services*, 14(4), 352-375.
2. Bonyuet, D. (2020). *Overview and impact of blockchain on auditing*. *International Journal of Digital Accounting Research*, 20, 31-43.
3. Wang, K., Zhang, Y., & Chang, E. (2020, July). *A conceptual model for blockchain-based auditing information system*. In *Proceedings of the 2020 2nd International Electronics Communication Conference* (pp. 101-107).
4. Hutt, R. (2018). *All you need to know about blockchain, explained simply*. *World Economic Forum*. <https://www.weforum.org/agenda/2016/06/blockchain-explained-simply/>
5. Vujicic, D., Jagodic, D., & Randic, S. (2018). *Blockchain technology, bitcoin, and Ethereum: a brief overview*. *2018 17th International Symposium INFOTEH-JAHORINA (INFOTEH)*, 1-6. <https://doi.org/10.1109/INFOTEH.2018.8345547>
6. Blossey, G., Eisenhardt, J., & Hahn, G. (2019). *Blockchain technology in supply chain management: An application perspective*.
7. Priyadarshini, I. (2019). *Introduction to blockchain technology*. *Cyber security in parallel and distributed computing: concepts, techniques, applications and case studies*, 91-107.
8. Singhal, B., Dhameja, G., Panda, P. S., Singhal, B., Dhameja, G., & Panda, P. S. (2018). *Introduction to blockchain*. *Beginning Blockchain: A Beginner's Guide to Building Blockchain Solutions*, 1-29.
9. Rathee, P. (2020). *Introduction to blockchain and IoT*. *Advanced applications of blockchain technology*, 1-14.
10. Engelhardt, M. A. (2017). *Hitching healthcare to the chain: An introduction to blockchain technology in the healthcare sector*. *Technology Innovation Management Review*, 7(10).
11. Gatteschi, V., Lamberti, F., Demartini, C., Pranteda, C., & Santamaría, V. (2018). *To blockchain or not to blockchain: That is the question*. *IT Professional*, 20(2), 62-74. doi: 10.1109/MITP.2018.021921652
12. Swan, M. (2015). *Blockchain: Blueprint for a new economy*. Retrieved from <https://www.safaribooksonline.com/library/view/blockchain/9781491920480/?ar>
13. Adhami, S., Giudici, G., & Martinazzi, S. (in press). *Why do businesses go crypto? An empirical analysis of Initial Coin Offerings*. *Journal of Economics and Business*. doi: 10.1016/j.jeconbus.2018.04.001
14. Siba, T. K., & Prakash, A. (2016). *Block-chain: An evolving technology*. *Global Journal of Enterprise Information System*, 8(4). doi: 10.18311/gjeis/2016/15770
15. Bell, L., Buchanan, W. J., Cameron, J., & Lo, O. (2018). *Applications of Blockchain Within Healthcare*. *Blockchain in healthcare today*.
16. Cole, R., Stevenson, M., & Aitken, J. (2019). *Blockchain technology: implications for operations and supply chain management*. *Supply Chain Management: An International Journal*, 24(4), 469-483.
17. Büyükköçkan, G. and Göçer, F. (2018), "Digital Supply Chain: Literature review and a proposed framework for future research", *Computers in Industry*, Vol. 97, pp. 157-177.
18. Chang, S. E., & Chen, Y. (2020). *When blockchain meets supply chain: A systematic literature review on current development and potential applications*. *Ieee Access*, 8, 62478-62494.
19. Schmitz, J., & Leoni, G. (2019). *Accounting and auditing at the time of blockchain technology: a research agenda*. *Australian Accounting Review*, 29(2), 331-342.





20. Moosavi, J., Naeni, L. M., Fathollahi-Fard, A. M., & Fiore, U. (2021). *Blockchain in supply chain management: A review, bibliometric, and network analysis*. *Environmental Science and Pollution Research*, 1-15.
21. Chang, A., El-Rayes, N., & Shi, J. (2022). *Blockchain technology for supply chain management: A comprehensive review*. *FinTech*, 1(2), 191-205.
22. Bellucci, M., Cesa Bianchi, D., & Manetti, G. (2022). *Blockchain in accounting practice and research: systematic literature review*. *Meditari Accountancy Research*, 30(7), 121-146.
23. Garanina, T., Ranta, M., & Dumay, J. (2022). *Blockchain in accounting research: current trends and emerging topics*. *Accounting, Auditing & Accountability Journal*, 35(7), 1507-1533.
24. Centobelli, P., Cerchione, R., Del Vecchio, P., Oropallo, E., & Secundo, G. (2022). *Blockchain technology design in accounting: Game changer to tackle fraud or technological fairy tale?*. *Accounting, Auditing & Accountability Journal*, 35(7), 1566-1597.
25. Pimentel, E., & Boulianne, E. (2020). *Blockchain in accounting research and practice: Current trends and future opportunities*. *Accounting Perspectives*, 19(4), 325-361.
26. International Data Corporation (2019, March). "Worldwide Blockchain Spending Forecast". <https://www.businesswire.com/news/home/20190304005122/en/>
27. Atzori M (2015) *Blockchain technology and decentralized governance: Is the state still necessary? Work Pap*
28. Vijai, C., Suriyalakshmi, S. M., & Joyce, D. (2019). *The blockchain technology and modern ledgers through blockchain accounting*. *Adalya Journal*, 8(12).
29. Singla, S. (2019, July 30). *How Blockchain Could Be A Game Changer In India*. Retrieved from <https://inc42.com/resources/how-blockchain-could-be-a-game-changer-in-india/>
30. ALSaqa, Z. H., Hussein, A. I., & Mahmood, S. M. (2019). *The impact of blockchain on accounting information systems*. *Journal of Information Technology Management*, 11(3), 62-80.
31. Rîndaşu, S. M. (2019). *Blockchain in accounting: trick or treat?*. *Quality-Access to Success*, 20(170).
32. Griggs, D., Smith, M. S., Rockström, J., Öhman, M. C., Gaffney, O., Glaser, G., ... & Shyamsundar, P. (2014). *An integrated framework for sustainable development goals*. *Ecology and society*, 19(4).
33. Almutairi, K., Hosseini Dehshiri, S. J., Hosseini Dehshiri, S. S., Hoa, A. X., Arockia Dhanraj, J., Mostafaepour, A., ... & Techato, K. (2023). *Blockchain Technology application challenges in renewable energy supply chain management*. *Environmental Science and Pollution Research*, 30(28), 72041-72058.