

# CRYPTOCURRENCY TRANSACTIONS AND THEIR APPLICATION TO STANDARD FINANCIAL REPORTING: A SYSTEMATIC REVIEW.

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#### Abstract

Cryptocurrency lacks standardization in the industry, thereby necessitating the difficulty in applying cryptocurrency transactions into standard financial reporting standards. This research examined the extent to which accounting standards have mutated to accommodate cryptocurrency. A systematic review protocol was conducted using extracted bibliographic data from the Web of Science, the Scopus, Google Scholar likewise, Research Gate. This research is rooted in a comprehensive examination of 137 studies using systematic literature review (SLR) method with the aid of VOS viewer and Rayyan. These studies were analysed using bibliometrics and evaluated critically in connection to two key areas: accounting for cryptocurrency and IFRS model for reporting crypto assets. This research established pooled research reports on cryptocurrency transactions and the adjustments made by standard financial reporting standards to accommodate crypto transactions. The study found that the IFRS framework does not provide a clear-cut direction on how to account for cryptocurrency transactions This research work contributes to the evolvement of accounting in standardizing the inclusion of cryptocurrency as a financial reporting item.

Keywords: Accounting Standards; Cryptocurrency; IFRS Model; International Accounting Standard

#### 1. Introduction

The cryptocurrency invention is gradually restructuring the delineations of auditing and financial reporting (Lombardi & Zecundo, 2020; Mancini et al., 2021; Marrone & Hazelton, 2019). Over the past decade, much research contribution as it impacts on innovations in technology for instance, automation (Egiyi & Chukwuani, 2021; Chukwuani & Egiyi, 2020; Kokina et al., 2017), big data (Vasarhelyi et al., 2015; Cockcroft & Russell, 2018), cloud computing (Egiyi & Udeh, 2020; Cleary & Quinn, 2016; Choudhary & Vithayathil, 2013), social media (Arnaboldi et al., 2017; Ramassa & Di Fabio, 2016) and artificial intelligence (Mosteanu & Faccia, 2020; Sutton et al., 2016) to facilitate the research and accounting practice. There is a need for business models to revolutionize to change management control processes and take charge of opportunities while avoiding some risks that may be emerging. The accounting, auditing and reporting of cryptocurrency is essentially recorded in a blockchain (Schmitz & Leoni, 2019). Blockchain can be said to be a digital ledger distributed in such a way in a network that it is partook by several associates to enable the recording of transaction and tracking of property in a way of tangible and intangible assets in an organized way. In the form of blocks, authorized transactions are added to blockchain, in a chain that is in a chronological order, secured by cryptology signatures (Bonson &







Bednarova, 2019). Marked with a timestamp and linked to the previous one is a particular block, making it nearly impossible to alter the blockchain due to its decentralized ledger (Bonson & Bednarova, 2019).

Cryptocurrency transactions differ from traditional financial transactions in several ways. One of the main differences is that cryptocurrency transactions are not regulated by central authorities or intermediaries. This means that the responsibility for verifying and recording transactions lies with the nodes in the network for blockchain maintenance. To apply cryptocurrency transactions to standard financial recording standards, it is necessary to develop systems and processes that allow the data from the decentralized ledger to be incorporated into existing financial reporting systems. This can be achieved using APIs, data mapping, and other technologies that allow for the integration of cryptocurrency data into existing financial systems.

It is important to note that the current lack of standardization systems in the industry dealing on cryptocurrency, is making it difficult to apply cryptocurrency transactions into standard financial reporting standards. However, as the industry continues to evolve and mature, it is likely that more standardized systems and processes will be developed. This research work contributes to the evolvement of accounting in standardizing the inclusion of cryptocurrency as a financial reporting item.

#### 1.1 **Objective**

To examine the extent to which accounting standards have mutated to accommodate cryptocurrency. This research work will be of benefit to accountants and auditors as there will be a clear-cut direction on how to account for such transactions.

#### 1.2 **Research Question**

According to (Booth et al., 2012), research questions should be guided by a systematic review which will establish whether there is a focus, a subject and the research extent. With this in mind, we have formulated the following inquiries:

RQ1. What are necessary adjustments done to integrate cryptocurrency transactions into standard financial reporting?

### 2. Review of Literature

Scopus, Web of Science, Google Scholar, and Research Gate are the primary sources of information to assure scientific robustness and inclusivity. A primary set of keywords associated to the topic under study:







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crypto-assets or cryptocurrencies (crypto\*), blockchain, accountant, accounting (account\*), audit, auditor, auditing (audit\*), report, reporting (report\*). This research sequence was authenticated via an e-survey conducted on 3 experts accounting field and the blockchain technology including experts in 2 SLR into the management and business world. These experts appraised the significance of the search keys to be used for the search sequence and recommended variations that made the literature review more sophisticated. Journal articles and conference papers are the selected article types. Only English-written papers that belong to accounting, business, management, and financial technology were included.

The gap that this research work will fill is the provision of a clear-cut direction on how to account for cryptocurrency transactions.

From the databases, 137 bibliographic data were extracted collectively as an RIS file, thereafter combined. The extracted data were sorted by 3 Reviewers with the aid of Rayyan Software for Systematic Review. After the sorting, the bibliographic data narrowed to 37 records. See Fig. 1 to for further detail.







#### Identification of new studies via databases and registers

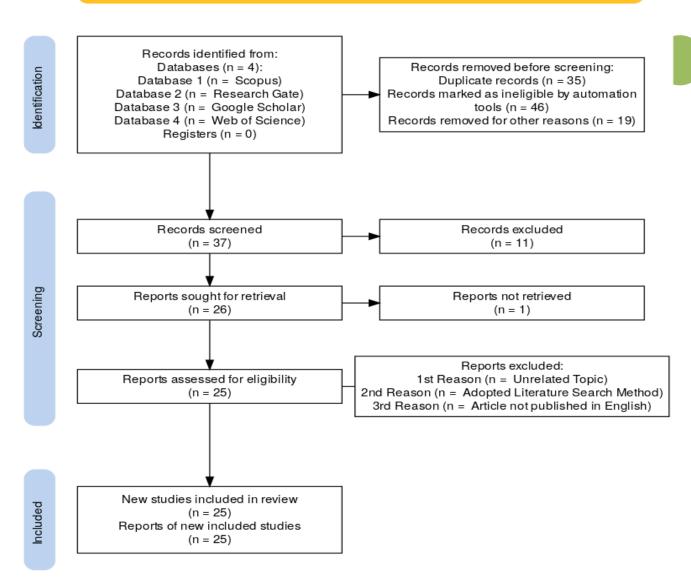


Fig. 1: Bibliographic Record Flowchart

# **Bibliometric Mapping/Visualization**

Fig 2 presents a mapping of the bibliometric subnetwork comprised of the authors included in this study that are highly interconnected. The mapping is based on the literature citations and is generated using bibliographic coupling and VOSviewer software. Bibliographic coupling measures the similarity between two publications by counting the number of shared references (Manetti et al., 2021). The dot's size in the figure corresponds to the weight of each publication, determined by the number of citations it has received. This method helps to highlight the most significant, frequently cited works. The overlay colours in Fig 2 indicate each year of publication for each document.







Fig 3 displays the results of our cooccurrence analysis. The relatedness of keywords in this analysis is decisive on the number of documents they are seen together. The keywords used in at least three publications were included in the analysis. The keywords were arranged into groups, which are collections that are strictly related intersections found in a bibliometric web. VOSviewer uses colours that will indicate the cluster assignment of each node based on cooccurrence relations, and the clustering technique used by VOSviewer according to Waltman et al. (2010). The heaviness of the intersection is determined by such frequency of the associated catchword.

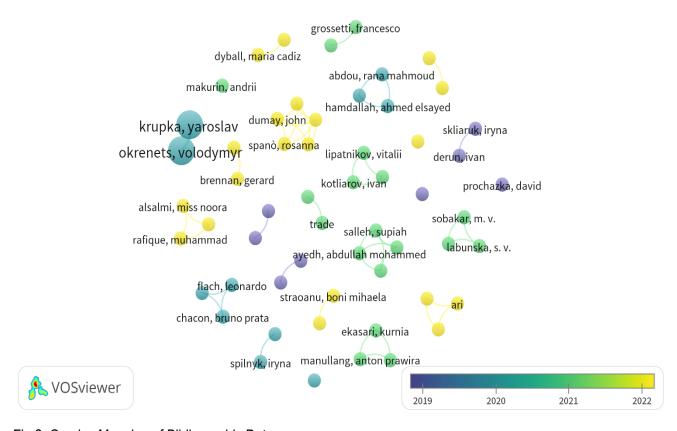


Fig 2: Overlay Mapping of Bibliographic Data







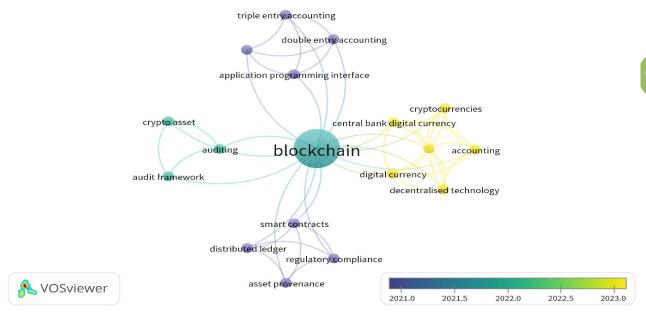


Fig 3: Overlay Mapping of Keywords

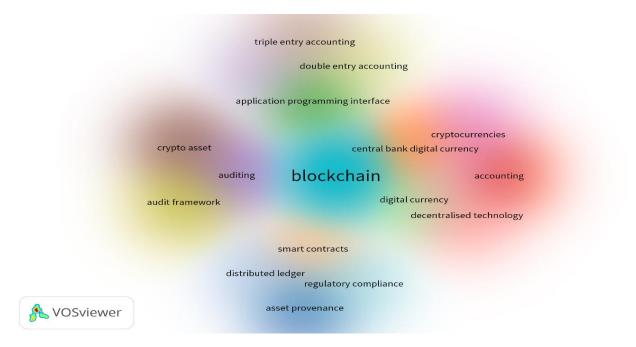


Fig 4: Density Visualization of Keywords

# 3. Methodology

Systematic review protocol was adopted in this study to reduce the confusion, thereby proffering scientific value to results. To guarantee sturdiness in this procedure, the research of Lombardi and Secundo (2020)







and Fragoso et al. (2020) were built on. Also, Preferred Reporting Items for Systematic Reviews and Meta-Analyses, PRISMA, was used to present analysis. Using PRISMA helps to ensure that the results of systematic reviews and meta-analyses are reported in a clear, transparent, and comprehensive manner, which helps to improve the quality and reliability of these studies (Page et al., 2021). PRISMA helps ensure that the results of the systematic processes in the reviews and meta-analyses were reported in a rigorous and systematic manner, which helps to reduce the risk of bias and increase the reliability of the results.

# 4. Discussion

Blockchain for accounting and auditing: from exploration to full exploitation. This topic includes 25 research products published between 2021 and 2023. Fig 4 shows a cooccurrence heatmap of the main authors' keywords in this cluster. Two blockchain accounting research areas within this specific topic, accounting for cryptocurrency and IFRS model for reporting crypto assets.

# Cryptocurrency and Treatment in Recognized Reporting Standards: A Textual Analyses

Blockchain technology was initially developed to establish a decentralized cash payment system, rather than create a new currency (Rosic, 2017). The cryptocurrency that emerged was merely a secondary outcome, serving as a means of exchange which is a key feature of money (Kiyotaki & Wright, 1989). Ten years later, individuals are not only using cryptocurrencies for online transactions, but also as a form of investment, hoping for increase in capital assets value. Cryptocurrencies fulfil the next purpose of money as store of value (McCabe, 1989; Ram et al., 2016). However, like any new investment, cryptocurrency prices are highly unstable and can experience significant fluctuations. Additionally, their nature as digital raises questions about their value as intrinsic, contributing to their price volatility.

Cryptocurrencies make up a significant portion of wealth, regardless of their actual value. At the end of 2022, Coinmarketcap.com listed 22,452 cryptocurrencies which has a total market capitalization of \$1,062,450,416,043. At times, the total market capitalization of cryptocurrencies has exceeded that of Google, which is the second largest company based on capitalization. It was also comparable to the GDP of Switzerland (Haig, 2018). The creation of cryptocurrencies can also impact accounting. Blockchain technology is likely to change the method through which transactions in accounting may be recorded and audited, while companies use cryptocurrencies in their daily business and must account for them in their financial statements.







Recording cryptocurrency transactions as noted by the International Financial Reporting Standards, (IFRS) framework poses huge challenge as the IFRS framework does not provide a clear-cut direction on how to account for such transactions. The IFRS suggests that the most appropriate method to treat most cryptocurrency accounting cases would be through the IAS 38 'Intangible Assets' rule, which could be accounted for either at cost or through revaluation (Ibrahim et al., 2021; Grant Thorntion, 2018). Cryptocurrency is identifiable, separable and has future economic benefits but may not be controllable.

These selected research works (Dyball & Seethamraju, 2021; Labunska et al., Malladi, 2022; Maiti et al., 2021; 2021; Ramassa & Leoni, 2021; Tan & Low, 2017) brings major research considerations and deliberations on the integration of Cryptocurrency into IFRS. Ramassa & Leoni (2021) discussed the challenge posed by the emergence of cryptocurrency, a rapidly evolving technology, to the International Accounting Standards Board, (IASB). They highlighted the tension between the constituents who are demanding new solutions and the IASB's role in resisting such pressures while maintaining its position. They also highlighted the increasing significance of agenda decisions in the International Financial Reporting Standards, (IFRS) environment and the limitations of the IASB's regulatory process which is usually long regarding the new and emerging issues in accounting related to cryptocurrency. Malladi (2022) suggests that there are shortcomings or limitations in the current treatment of cryptocurrencies under IFRS in accounting compared to the traditional accounting structure established by IFRS as the current IFRS accounting framework has limitations in dealing with the accounting of cryptocurrencies, which are different from traditional financial assets. These limitations are seen as deficiencies in the IFRS framework. Cryptocurrency transactions present new and unique risks to auditors due to their ambiguity and the absence of official guidance. These risks must be considered during the process of client acceptance and audit planning, including the consideration of the specific risks associated with these transactions. Dyball and Seethamraju (2021) evidence from Australia showed that blockchain technology presents distinct challenges to traditional audit methods. As a result, auditing firms may need to adjust the way they plan and design audit procedures and execute financial statement audits. Professionalism and commercialism principles are complementary in nature, offering both opportunities and obstacles for audit firms to broaden their expertise in this emerging field. Maiti et al. (2021) suggest that the design of a potential Triple-Entry Accounting (TEA) system has a capability to offer instant perception into the operations of the business, thanks to its architecture. Labunska et al. (2021) hold that there is need for accounting bodies to develop reporting models that will comprehensively accept transactions in cryptocurrency and cryptocurrency as assets. According to Tan and Low (2017), Bitcoin was created as a decentralized currency and is meant to complement, not replace, fiat money. Faithful representation as







an accounting principle requires different interpretations for financial reporting based on the reporting body. Trading firms treat Bitcoin like a foreign currency and even measure revenue or expenses in terms of the currency it is reporting in, while exchanges in digital currency view Bitcoin in terms of goods and apply tax treatment on in during accounting.

### 5. Conclusion

As per IAS 2, the default approach to recognizing inventories implies recording them at the lowest of cost and net realizable value. When it comes to commodity broker-traders, the Standard requires that their inventories are measured at fair value less costs to sell. Changes are made in the fair value being recognized in profit or loss in the same period under review. This approach would only be suitable in limited circumstances where the reporting entity has acquired cryptocurrency assets with the intention of selling them soon and generating profits from price fluctuations or broker-trader margins.

IFRS does provide general guidance on how to account for financial assets and liabilities, that can be applied to cryptocurrencies in some cases. In the case of Bitcoin, this means that an organisation should recognize Bitcoin as an asset at the time it was acquired for the purpose of holding it for future use or for sale and also when the asset's cost can be measured reliably. The value of Bitcoin can be volatile, which could make it difficult to measure its cost reliably. This would need to be considered when determining if the criteria for recognition are met.

Financial assets are recognized on the statement of financial position when an organisation has an authority over the legitimate rights to the asset and it is likely that the entity will receive profits from the asset in the future. Cryptocurrencies may meet these criteria and could therefore be recognized as a financial asset.

Liabilities, including financial liabilities, are recognized when an organisation has a present responsibility to convey profit making resources because of a previous event and it is likely that the organisation will be required to convey the assets. Some obligations arising from cryptocurrency transactions may meet these criteria and could therefore be recognized as financial liabilities. It is imperative to note that recognizing cryptocurrencies as financial assets and liabilities will depend on the specific circumstances of each transaction and entity, and may also be influenced by the laws and regulations guiding the commission which the organisation operates in.

#### 6. Recommendation







The IFRS framework should as a matter of importance, provide a clear-cut direction on how to account for cryptocurrency transactions.

The IFRS framework does not provide a clear-cut direction on how to account for such transactions.

#### References

- Abdou, R. M., Kadous, H. M., & Hamdallah, A. E. (2020). Current accounting practices for bitcoins. كلية . https://doi.org/10.21608/sjsc.2020.49813.1007
- Alsalmi, M. N., Ullah, S., & Rafique, M. (2023). Accounting for digital currencies. *Research in international business and finance*, 101897. https://doi.org/10.1016/j.ribaf.2023.101897
- Arnaboldi, M., Busco, C., & Cuganesan, S. (2017). Accounting, accountability, social media, and big data: revolution or hype? *Accounting, Auditing & Accountability Journal*, 30(4), 762–776. https://doi.org/10.1108/aaaj-03-2017-2880
- Bonsón, E., & Bednárová, M. (2019). Blockchain and its implications for accounting and auditing. *Meditari Accountancy Research*, 27(5), 725–740.
- Buterin, V. (2014, July 22). Launching the ether sale. Ethereum foundation blog. <a href="https://blog.nethereum.org/2014/07/22/launching-the-ether-sale/">https://blog.nethereum.org/2014/07/22/launching-the-ether-sale/</a>
- Choudhary, V., & Vithayathil, J. (2013). The impact of cloud computing: should it department be organized as a cost center or a profit center? *Journal of Management Information Systems*, 30(2), 67–100. https://doi.org/10.2753/mis0742-1222300203
- Chukwuani, V., & Egiyi, M. (2020). Automation of Accounting Processes: Impact of Artificial Intelligence. International Journal of Research and Innovation in Social Science (IJRISS) 4(8) 2454–6186. https://www.rsisinternational.org/ journals/ijriss/Digital-Library/volume-4-issue-8/444-449.pdf
- Cleary, P., & Quinn, M. (2016). Intellectual capital and business performance: An exploratory study of the impact of cloud-based accounting and finance infrastructure. *Journal of Intellectual Capital*, 17, 255–278.
- Cockcroft, S., & Russell, M. (2018). Big data opportunities for accounting and finance practice and research. *Australian Accounting Review*, 28(3), 323–333.
- Dai, J., & Vasarhelyi, M. A. (2017). Toward blockchain-based accounting and assurance. *Journal of Information Systems*, 31(3), 5–21. https://doi.org/10.2308/isys-51804
- Derun, I., & Skliaruk, I. (2018). The ontological aspects of the essence of cryptocurrency and its display in accounting. Scientific Notes of Ostroh Academy National University, "*Economics*" Series, 1(11(39)), 163–170. https://doi.org/10.25264/2311-5149-2018-11(39)-163-170
- Dyball, M. C., & Seethamraju, R. (2021). Client use of blockchain technology: exploring its (potential) impact on financial statement audits of Australian accounting firms. *Accounting, Auditing &*







- Accountability Journal, ahead-of-print(ahead-of-print). https://doi.org/10.1108/aaaj-07-2020-4681
- Echchabi, A., Ayedh, A. M. A., Hamid, F. A., & Salleh, S. (2021). Implications of cryptocurrency and blockchain on auditing and accounting practices: The Malaysian experience. *International Journal of Blockchains and Cryptocurrencies*, 1(1), 1. https://doi.org/10.1504/ijbc.2021.10038864
- Egiyi, M., & Chukwuni, V. (2021). Robotic Process Automation (RPA): Its Application and the Place for Accountants in the 21st Century. *International Journal of Advanced Finance and Accounting*. https://airjournal.org/ijafa/wp-content/uploads/sites/13/2021/04/30-40.pdf
- Egiyi, M., & Udeh, S. (2020). Overview of cloud accounting in Nigeria. *International Journal of Academic Management Science Research*, 4(6), 81–88.
- Fragoso, J. L. F. R., Peixinho, R. M. T., Coelho, L. M. S., & Paiva, I. C. S. (2020). The impact of financial restatements on financial markets: a systematic review of the literature. Meditari Accountancy Research, 28(6), 1119–1147. https://doi.org/10.1108/medar-05-2019-0482
- Gietzmann, M., & Grossetti, F. (2021). Blockchain and other distributed ledger technologies: Where is the accounting? *Journal of Accounting and Public Policy*, 40(5), 106881. https://doi.org/10.1016/j.jaccpubpol.2021.106881
- Grant Thorntion. (2018). Accounting for cryptocurrencies -the basics IFRS Viewpoint. In Grant Thornton. <a href="https://www.grantthornton.global/globalassets/1.-member-firms/global/insights">https://www.grantthornton.global/globalassets/1.-member-firms/global/insights</a> /article-pdfs/ifrs/ifrs-viewpoint-9---accounting-for-cryptocurrencies--the-basics.pdf
- Hsieh, S. F., & Brennan, G. (2022). Issues, risks, and challenges for auditing crypto asset transactions. *International Journal of Accounting Information Systems*, 100569. https://doi.org/10.1016/j.accinf.2022.100569
- Ibrahim, M., Waziri, B. Z., Abba, B., & Babangida, M. A. (2021, March 11). Accounting for Crypto Assets and its Implication for Financial Reporting. Muhasebe Bilim Dünyası Dergisi. 3rd ICAN-Malaysia International Conference on Accounting and Finance (ICAF-IMDS 2021), Malaysia. https://doi.org/10.31460/mbdd.1066621
- IFRS. (2018). Accounting for cryptocurrencies -the basics IFRS Viewpoint. https://www.grantthornton.global/globalassets/1.-member-firms/global/insights/article-pdfs/ifrs/ifrs-viewpoint-9---accounting-for-cryptocurrencies--the-basics.pdf
- Janggur, M. F. M., & Nugrahanti, T. P. (2022). Implementation of accounting standards for cryptocurrency companies in Indonesia. *Journal of Asian Business Strategy*, 12(2), 139–149. https://doi.org/10.55493/5006.v12i2.4680
- Kiyotaki, N., & Wright, R. (1989). On money as a medium of exchange. *Journal of Political Economy*, 97(4), 927–954. https://doi.org/10.1086/261634







- Kokina, J., Mancha, R., & Pachamanova, D. (2017). Blockchain: Emergent industry adoption and implications for accounting. *Journal of Emerging Technologies in Accounting*, 14(2), 91–100. https://doi.org/10.2308/jeta-51911
- Krupka, Y., & Okrenets, V. (2020). Cryptocurrency as an object of accounting and a source of economic benefits. *Herald of Ternopil National Economic University*, 3(97), 238–251. https://doi.org/10.35774/visnyk2020.03.238
- Labunska, S. V., Serikova, T. M., & Sobakar, M. V. (2021). Approaches to and methodological basis of accounting for intangible assets generated in cryptocurrency. *The Problems of Economy*, 2(48), 225–235. https://doi.org/10.32983/2222-0712-2021-2-225-235
- Lombardi, R., & Secundo, G. (2020). The digital transformation of corporate reporting a systematic literature review and avenues for future research. Meditari Accountancy Research, ahead-of-print(ahead-of-print), 1179–1208. https://doi.org/10.1108/medar-04-2020-0870
- Maiti, M., Kotliarov, I., & Lipatnikov, V. (2021). A future triple entry accounting framework using blockchain technology. Blockchain: Research and Applications, 2(4), 100037. https://doi.org/10.1016/j.bcra.2021.100037
- Makurin, A. (2021). Display of cryptocurrency in accounting. *Economies' Horizons*, 3(14), 13–22. https://doi.org/10.31499/2616-5236.3(14).2020.224794
- Makurin, A. A. (2021). Cryptocurrency as an object in accounting. Economy digitalization in a pandemic conditions: Processes, Strategies, Technologies. <a href="https://doi.org/10.30525/978">https://doi.org/10.30525/978</a> -9934-26-028-5-48
- Malladi, R. K. (2022). Pro forma modeling of cryptocurrency returns volatilities, linkages and portfolio characteristics. China Accounting and Finance Review. <a href="https://doi.org/10.1108">https://doi.org/10.1108</a> /cafr -02-2022-0001
- Mancini, D., Lombardi, R., & Tavana, M. (2021). Four research pathways for understanding the role of smart technologies in accounting. *Meditari Accountancy Research*, 29(5), 1041–1062. https://doi.org/10.1108/medar-03-2021-1258
- Manetti, G., Bellucci, M., & Oliva, S. (2021). Unpacking dialogic accounting: a systematic literature review and research agenda. Accounting, Auditing & Accountability Journal, 34(9), 187–220. https://doi.org/10.1108/aaaj-08-2020-4736
- Manullang, A. P., Riwajanti, N. I., & Ekasari, K. (2021). Accounting Treatment for Cryptocurrency. Proceedings of 2nd Annual Management, Business and Economic Conference (AMBEC 2020). https://doi.org/10.2991/aebmr.k.210717.031
- Marçal, R., Chacon, B., & Flach, L. (2020). Is bitcoin an opportunity or a threat to the relevance of accounting information? Revista Mineira de Contabilidade, 21(1), 46–55.
- Marrone, M., & Hazelton, J. (2019). The disruptive and transformative potential of new technologies for accounting, accountants, and accountability. Meditari Accountancy Research, 27(5), 677–694. https://doi.org/10.1108/medar-06-2019-0508







- McCabe, K. A. (1989). Fiat money as a store of value in an experimental market. Journal of Economic Behavior & Organization, 12(2), 215–231. https://doi.org/10.1016/0167-2681(89)90056-5
- Mosteanu, N. R., & Faccia, A. (2020). Digital systems and new challenges of financial management FinTech, XBRL, Blockchain and Cryptocurrencies. Quality Access to Success, 21(174), 159–166.
- Ovcharenko, A. S. (2019). Accounting of cryptocurrency transactions in Ukraine: current state and prospects. Uzhhorod National University Herald. Series: Law, 58(2), 50–53. https://doi.org/10.32782/2307-3322.58-2.10
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., & McGuinness, L. A. (2021). The PRISMA 2020 statement: an Updated Guideline for Reporting Systematic Reviews. *British Medical Journal*, 372(71), n71. https://doi.org/10.1136/bmj.n71
- Procházka, D. (2018). Accounting for bitcoin and other cryptocurrencies under IFRS: A Comparison and Assessment of Competing Models. *The International Journal of Digital Accounting Research*, 18, 161–188. https://doi.org/10.4192/1577-8517-v18\_7
- Ram, A., Maroun, W., & Garnett, R. (2016). Accounting for the bitcoin: Accountability, neoliberalism, and a correspondence analysis. *Meditari Accountancy Research*, 24(1), 2–35. https://doi.org/10.1108/medar-07-2015-0035
- Ramassa, P., & Leoni, G. (2021). Standard setting in times of technological change: accounting for cryptocurrency holdings. Accounting, Auditing & Accountability Journal, ahead-of-print(ahead-of-print). https://doi.org/10.1108/aaaj-10-2020-4968
- Rosic, A. (2016, November 15). What is cryptocurrency: Everything you must need to know! Blockgeeks. https://blockgeeks.com/guides/what-is-cryptocurrency/
- Ryabova, T., & Henderson, S. (2019). Integrating cryptocurrency into intermediate financial accounting curriculum: a case study. *Journal of Accounting and Finance*, 19(6). https://doi.org/10.33423/jaf.v19i6.2322
- Sin Yee, T. (2020). Accounting treatment of cryptocurrency: a Malaysian context. Management and Accounting Review, 19(3), 119–149. https://doi.org/10.24191/mar.v19i03-06
- Spanò, R., Massaro, M., Ferri, L., Dumay, J., & Schmitz, J. (2022). Blockchain in accounting, accountability, and assurance: an overview. Accounting, Auditing & Accountability Journal, 35(7). https://doi.org/10.1108/aaaj-06-2022-5850
- Spilnyk, I., & Yaroshchuk, O. (2020). Cryptocurrency institutionalization: regulation, legal status, accounting, and taxation. *The Institute of Accounting, Control and Analysis in the Globalization Circumstances*, 2, 81–92. https://doi.org/10.35774/ibo2020.02.081







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- Sutton, S. G., Holt, M., & Arnold, V. (2016). The reports of my death are greatly exaggerated"—Artificial intelligence research in accounting. *International Journal of Accounting Information Systems*, 22, 60–73. https://doi.org/10.1016/j.accinf.2016.07.005
- Tan, B. S., & Low, K. Y. (2017). Bitcoin Its economics for financial reporting. *Australian Accounting Review*, 27(2), 220–227. https://doi.org/10.1111/auar.12167
- Tegledi, A. M., & Straoanu, B. M. (2022). Cryptocurrency (virtual coins): Accounting aspects and tax regulations. World Lumen Congress 2021. https://doi.org/10.18662/wlc2021/64
- Vasarhelyi, M. A., Kogan, A., & Tuttle, B. M. (2015). Big data in accounting: An overview. Accounting Horizons, 29(2), 381–396. https://doi.org/10.2308/acch-51071



