Reporting Cryptocurrency in Financial Statement with a Bibliometric Approach

Forouzan Mohammedi[1], Maryam Nouraei*[2], Pooyan Bozorgmeh[3]

[1] Department of Accounting, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

[2] Department of Accounting, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

[3] Department of Accounting, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

Abstract

Cryptocurrency is an advanced form of currency that uses numerical algorithms to encrypt data. Several companies have started accepting it as payment for goods and services. The aim of this paper is to propose a framework for how companies should report cryptocurrency in the future. The bibliometric analysis was conducted using data from the Scopus scientific database. For this purpose, information related to 91 articles was downloaded from this database, and a co-occurrence map of frequently used keywords between the years 2018 and 2023, as well as the most cited authors in this field, were presented and analyzed. Traditional financial assets include the US dollar, oil, natural gas, and gold. Although the Financial Accounting Standards Board has not yet provided a specific classification for digital currencies, which are significant topics, studies suggest that a cryptocurrency is likely to be classified as an intangible asset. However, it is still possible for crypto to be classified as cash and cash equivalents, or inventory and investments. The depreciation of crypto-assets and the estimation of their useful life are among the challenges of identifying and classifying them in accounting. Due to the rapid adoption of cryptocurrency in transactions, it is necessary to identify and record them in financial statements. To answer the question of what is the best accounting method for identifying, classifying, and evaluating the value of digital currencies, as well as how their useful life should be evaluated, this research systematically reviews a summary of articles published in Scopus and Web of Science

*Corresponding Author: Maryam.Nouraei@iau.ac.ir

Introduction

Cryptographic tools, primarily cryptocurrency, are integral attributes of the digitization of the new economy. They confidently and inevitably earn the right to exist, sometimes challenging established economic laws, disrupting traditional concepts, and necessitating radical changes in business processes (Yatsyk & Shvets, 2020). Despite abnormalities, misunderstandings, rejections, and widespread distrust, governments, national central banks, companies, consulting firms, IT developers, and scientists recognize the significance of the digital economy. They are developing new blockchain solutions, researching cryptocurrency, understanding the benefits of innovative technologies, and providing a legal framework for these new phenomena (Brukhanskyi & Spilnyk, 2019). The value of assets at an enterprise is constantly assessed and adjusted according to specific balance dates and time intervals (Hsu & Liu, 2016). In other words, value is recorded relative to a specific date and time. The phenomenon of modern digital money in the form of cryptocurrency is both the least researched and the simplest investment asset. An increasing number of people are focusing on cryptocurrency investing, hoping to earn passive income, which is not subject to income tax in many countries (Yan et al., 2022).

Investing in cryptocurrency is indeed risky. However, many people are willing to take this risk, viewing it as a potential avenue for profit. Cryptocurrency trading is attracting a growing number of speculators, including both novices and those with experience in stock or national currency trading. Some businesses are now beginning to accept cryptocurrency as payment for specific items. For instance, Microsoft is one of the companies that accept Bitcoin as payment for certain products, such as those on their Xbox Live store (Nabilou & Prüm, 2019; Pastrana & Suarez-Tangil, 2019). As companies begin to accept cryptocurrency as a legitimate form of payment, they need guidance on how to account for cryptocurrency transactions. If they hold cryptocurrency at the end of an accounting period, it must be reported on their financial statements (Adamik & Kosta, 2019; Hong et al., 2018). However, accounting standard setters have not yet issued any guidance on where cryptocurrency should be reported. Consequently, this paper attempts to answer the question: How should businesses report cryptocurrency on their financial statements? When examining the rise of cryptocurrency, it's important to note its association with concepts such as "money," "payment," "security," and "electronic money." Starting with the concept of money, it is a liquid asset used to purchase goods and services. Throughout history, people from different communities have used various physical forms as money. Economists define money (also referred to as the money supply) as anything generally accepted in payment for goods and services or in the repayment of debts (Blahušiaková, 2022; Yan et al., 2022). With advancements in economics and the increasing use of online transactions, the concept of electronic money (e-money) has emerged. E-money is a stored financial value represented by a claim on the issuer, issued upon receipt of funds for making payment transactions. E-money is stored and transferred electronically through various means such as a mobile phone, tablet, contactless card (or smart cards), computer hard drive, or servers. E-money does not necessarily involve bank accounts in transactions but still requires a third party. Essentially, electronic money is based on the trust of

clients in the third party. The innovation of this research lies in the use of the VOSviewer software. By utilizing this software, visually mapped representations of cryptocurrency were provided to the audience for easier understanding.

Literature Review

HOW OTHERS ACCOUNT FOR CRYPTOCURRENCY

FASB

Established in 1973, the Financial Accounting Standards Board (FASB) is an independent, private sector, non-profit organization that establishes financial accounting and reporting standards for public and private companies, as well as non-profit organizations that follow Generally Accepted Accounting Standards (GAAP). The FASB is recognized by the U.S. Securities and Exchange Commission as the designated accounting standard setter for public companies. The first real indication that the FASB is delving into the subject of cryptocurrency comes from the report on the rapid development of cryptocurrency and other digital assets. Entities are speculating on how they should classify these assets. Entities such as the "Big Four" accounting firms (Pricewaterhouse Coopers (PwC), Ernst & Young (EY), Deloitte, and Klynveld Peat Marwick Goerdeler (KPMG)), AICPA, IFRS, and IRS each have their own opinion on how cryptocurrency should be reported. However, there will be no definitive answers until guidance is given. Until that point, companies and accountants are merely guessing how to report cryptocurrency (Tarasova et al., 2020).

AICPA The American Institute of Certified Public Accountants (AICPA) has not clearly defined which account cryptocurrency belongs to for public companies. However, it has discussed how non-profits should account for cryptocurrency. The AICPA suggests that in a situation where non-profits are holding cryptocurrency, they should "treat it as an investment for accounting purposes" (aicpa.org, 2018). While non-profit accounting and traditional GAAP accounting differ from each other, the AICPA generally considers that cryptocurrency should be reported as an Investment on non-profit financial statements.

Luo and Yu (2024), in their study compares and contrasts US and international accounting and financial reporting practices for cryptocurrency. The researchers analyze the financial statements of 40 global companies with exposure to cryptocurrencies, including purchases, mining, payments, trading, and investments in ICOs and early-stage blockchain ventures. The study documents inconsistencies between Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS), as well as distortions that can mislead users in assessing asset value, liquidity, profitability, and cash-generating abilities across firms. Specifically, firms receiving cryptocurrencies in revenue-generating activities account for cryptocurrencies as intangibles using different measurement bases and classify the associated cash inflows differently. Some firms place cryptocurrencies in the usual long-term location of intangibles, while others consider intangibles as liquid, short-term assets. Limited guidance about crypto-assets from both IFRS and GAAP allows companies to choose which existing standard to apply and

how to apply it. Understanding the financial and valuation implications of these new virtual assets is vital for future accounting research and professional practice.

In study by Brandon et al. (2024) examines the financial accounting and reporting issues surrounding cryptocurrencies by analyzing the financial statements of 40 global companies involved in various cryptocurrency activities. The research highlights inconsistencies between US Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS), which can mislead users in assessing asset value, liquidity, profitability, and cash-generating abilities. The study underscores the limited guidance on crypto-assets from both IFRS and GAAP, allowing companies to choose which existing standard to apply, leading to inconsistencies and ambiguities in financial reporting. This gap emphasizes the need for further research and the development of more comprehensive guidelines.

In July 2020, the European Financial Reporting Advisory Group (EFRAG) published a discussion paper (DP) titled 'Accounting for Crypto-Assets'. The DP provided possible approaches to address the gaps in crypto-assets (liabilities) requirements. EFRAG has now reviewed the feedback received and made recommendations for the IASB. Based on the feedback received, EFRAG recommends clarifying or amending existing measures using a two-step approach. As a first step, EFRAG suggests addressing the accounting requirements for holders of crypto-assets by amending IAS 38 Intangible Assets to allow measuring crypto-assets or a number of other numbers within the scope of the standard at fair value through profit and loss, and to develop disclosure requirements for

issuers. As a second step, EFRAG believes it is important to also address issuer accounting in more detail and determine the appropriate accounting requirements for issuers, given the challenges that arise from the ambiguity on the nature of rights and obligations associated with the issuance of novel and fast-moving crypto transactions.

The International Accounting Standards Board (IASB) and the International Financial Reporting Standards Foundation (IFRS Foundation) are the global standard setters for accounting outside the US. They play a pivotal role in accounting standards around the world, and they have already released an acceptable way to report cryptocurrency based on the rules that currently exist (Bonsón & Bednárová, 2019).

IFRS Foundation & IASB The International Accounting Standards Board (IASB) and the International Financial Reporting Standards Foundation (IFRS Foundation) are the international standard setters for accounting outside the US. They play a crucial role in global accounting standards, and they have already released an acceptable method for reporting cryptocurrency based on the existing rules. Please refer to Table 1 for more details.

Standards	Categorization	Acceptable under IFRS
IAS 7 *Statement of Cash Flows*	AS 7 was reissued in December 1992, retitled in September 2007, and is operative for financial statements covering periods beginning on or after 1 January 1994.	NO
IAS 39 — Financial Instruments: Recognition and Measurement	IAS 39 was reissued in December 2003, applies to annual periods beginning on or after 1 January 2005, and will be largely replaced by IFRS 9 Financial Instruments for annual periods beginning on or after 1 January 2018.	NO
IAS 40 — Investment Property	*Investment Property* applies to the accounting for property (land and/or buildings) held to earn rentals or for capital appreciation (or both). IAS 40 was reissued in December 2003 and applies to annual periods beginning on or after 1 January 2005.	NO
IAS 16 — Property, Plant and Equipment	IAS 16 Property, Plant and Equipment outlines the accounting treatment for most types of property, plant and equipment. IAS 16 was reissued in December 2003 and applies to annual periods beginning on or after 1 January 2005.	NO
IAS 38 — Intangible Assets	IAS 38 *Intangible Assets* outlines the accounting requirements for intangible assets, which are non-monetary assets which are without physical substance and identifiable. IAS 38 was revised in March 2004 and applies to intangible assets acquired in business	yes

	combinations occurring on or after 31 March 2004, or otherwise to other intangible assets for annual periods beginning on or after 31 March 2004.	
IAS 2 — Inventories	IAS 2 Inventories contains the requirements on how to account for most types of inventory. A revised version of IAS 2 was issued in December 2003 and applies to annual periods beginning on or after 1 January 2005.	Yes*

Report cryptocurrency

Some Committee members expressed their views, disagreeing with the analysis that cryptocurrency is an intangible asset since it is not used in operations at all. The indefinite useful life model cannot be applied to cryptocurrencies since the model assumes that the asset continues to generate cash flows. Some members believed that cryptocurrency would need to be amortized. However, others pointed out that as an indefinite-life intangible, the asset would not be amortized but instead subject to an impairment model. Despite this, a majority of the Committee members agreed with the staff analysis in Paper 4A, which includes the classification of cryptocurrencies as intangible assets, provided that this is a common understanding based on the current requirements within the IFRS Standards. The issue of measurement is not only to be addressed for cryptocurrencies but will also be applicable to other industries dealing with the trading of tokens in different ways. It is also controversial whether changes in the value of cryptocurrencies, which are speculative in nature, should be recorded in other comprehensive income if cryptocurrencies are classified as intangible assets, as it may not be an appropriate presentation (R. F. Brukhanskyi & Spilnyk, 2019a; Procházka, 2018; Yan et al., 2022).

IRS The Internal Revenue Service (IRS) is not a governing body that oversees financial reporting. It handles tax reporting in the US and has issued an opinion on the matter of cryptocurrency. The IRS has classified cryptocurrency as property and has informed individuals that "income from virtual currency transactions is reportable on their income tax returns. Virtual currency exchanges are taxable by law, just like exchanges in any other property" (Kinash et al., 2019).

Valuation of Cryptocurrency Assets The recognition of a crypto asset in a classification requires the company to select a model for its subsequent valuation. In practice, the most actively used models are those for measuring crypto assets at fair value. Companies that identify themselves as broker-traders are in a relatively advantageous position in the current practice

(Ankenbrand et al., 2020). When classifying crypto assets as inventory, broker-traders measure them at fair value less costs to sell. An analysis of the accounting policies of some companies that identify themselves as brokers has shown that companies directly inform users of the financial statements that the cost of sale is insignificant (Ankenbrand et al., 2020). Therefore, the amount at which crypto assets are measured at fair value less costs to sell approximates their fair value. Since crypto assets are reflected as short-term (or current assets), i.e., they are not long-term investments, their revaluation is reflected in profit or loss without accumulating value gains in equity through other comprehensive income (R. F. Brukhanskyi & Spilnyk, 2019b). This valuation model accurately reflects the market (stock) price of an asset. Users of financial statements can obtain information about the fair value hierarchy for certain types of cryptographic assets, and if it is level 1, the source data can be publicly confirmed (Muhammad Fahmi et al., 2018). Thus, in the authors' opinion, this valuation model aligns with information requests from both the users of the financial information and the management of the reporting entity. The valuation models considered are, in fact, asset value management models as a business model for achieving a business objective. However, if it is envisaged to write off the capital gains to the financial result, it is possible to extend the model to the level of the business model with the allocation of changes in profit and loss. It should be clarified here that this approach is a variation of solutions (Alqaryouti et al., 2020; Muhammad Fahmi et al., 2018).

However, the proposed models provide for the development of a method for the valuation of crypto assets. IAS 1 "Presentation of Financial Statements"

allows for such possibilities, but only if compliance with the established rules would mislead users of financial statements. The exercise of specific professional judgment and deviation from the standard IFRS rules requires reporters to disclose such information, which can be a time-consuming process as it involves recalculating the impact on each reporting item affected by the change. Prospective models for managing the value of crypto assets were defined based on the best practices of crypto asset classification and valuation, depending on the intention of the company management to use them (Morozova et al., 2020).

Research Methodology

Bibliometrics is a type of statistical study that characterizes a scientific field. It includes identifying hot topics, leading authors, and the most productive countries in any subject, as well as presenting the efficiency index of the subject in the form of images and numbers. Information visualization is a technique that aids in understanding the structures and interrelationships of thousands of documents. VOSviewer, a free software, was used for the illustration and formation of comprehensible images, information processing, clustering, citation analysis of articles, and checking the frequency of word occurrence.

Most data used in the study have been obtained from the Scopus scientific database within the timeframe spanning from 2018 to 2023, using the following search formula. The resulting findings were saved in CSV format, and the outcomes were presented in the results section accordingly.The main search terms included: reporting, Financial Statement, and cryptocurrency, which were
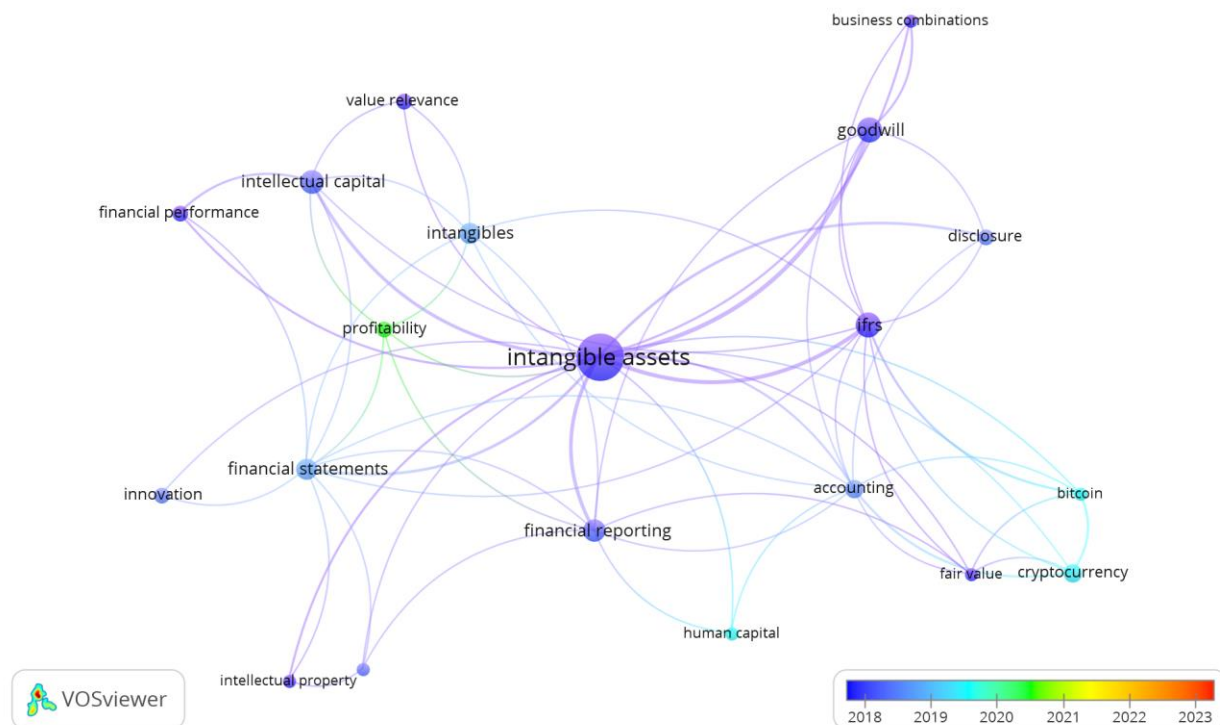
documented in the Scopus database between 2018 and 2023. The articles and review papers were confirmed to be published or in press in English-language journals and financial magazines in the fields of accounting, economics, business, and management.This research was conducted in April 2024, and changes may occur after this date.

This is the typical research formula followed in current study:

(TITLE-ABS-KEY (crypto currency) AND TITLE-ABS-KEY (financial AND statement)) AND TITLE-ABS-KEY (reporting) AND (LIMIT-TO (PUBYEAR , 2023) OR LIMIT-TO (PUBYEAR , 2018)) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "ECON")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (SRCTYPE , "j")) .

Results:

Map of overlay visualization of the co-occurrence of frequently repeated keywords between 2018 and 2023

A map of overlay visualization of the co-occurrence of frequently repeated words between 2018 and 2023 was created. Out of the 91 documents exported from the Scopus scientific database, 340 keywords appeared at least 4 times in 20 articles. These words were used by the free VOSviewer software to create an overlay visualization of the co-occurring keywords. Each word was assigned a circle. The larger the circle, the more frequently the word appeared in the articles. Additionally, a link between the items indicates that those two items have appeared together in one or more articles.

The shorter and thicker the link, the stronger the connection between these items. According to the map, the words that tend to be more red are more likely to be used in articles in the coming years. In the current map, the occurrence of words tends to transition from purple to green. In 2018, the most frequent words were 'intangible assets', 'financial reporting', and 'goodwill'. In 2019, they were 'financial statements', 'bitcoin', and 'cryptocurrencies'. In 2020, 'profitability' was among the most frequent words.

Map of Overlay Visualization of the Most Cited Authors
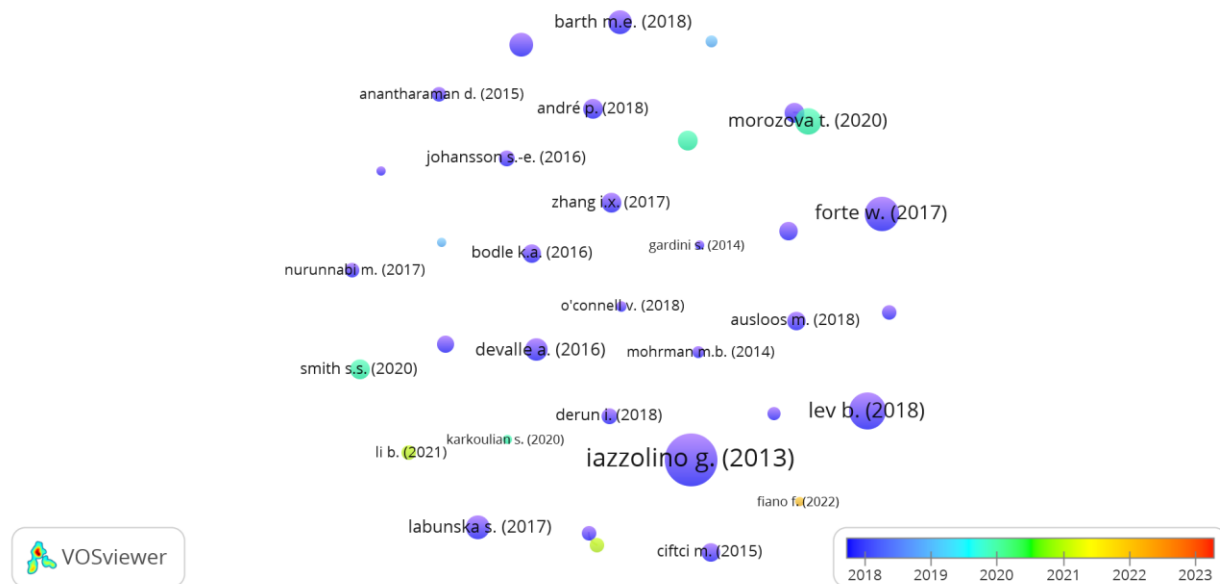
Among the 91 documents extracted from the Scopus scientific database, there were 35 authors whose articles were cited at least 4 times. After the map was created, each author was assigned a circle. Within each node, the author's name and the year they received the most citations are visible. The Table of top five most cited authors

larger the circle, the more references the author has. Following this, a table is introduced containing the top five authors in the field of Reporting Cryptocurrency in Financial Statements, along with the number of citations received for each article.

	Name of the author	Title		year	citation
1	Gianpaolo Iazzolino, Domenico Laise	Value added intellectual coefficient (VAIC): A methodological and critical review	Journal of Intellectual Capita	2013	116
2	Baruch Lev	The deteriorating usefulness of financial report information and how to reverse it	Accounting and Business Research	2018	57
3	William Forte, Jon Tucker, Gaetano Matonti, Giuseppe Nicolò	Measuring the intellectual capital of Italian listed companies	Journal of Intellectual Capital	2017	48
4	Morozova, T.; Akhmadeev, R.; Lehoux, L.; Yumashev, A. V.; Meshkova, G. V.; Lukiyanova, M.	Crypto asset assessment models in financial reporting content typologies	Entrepreneurship and Sustainability Issues	2020	29
5	Mary E. Barth	The Future of Financial Reporting: Insights from Research	A journal of Accounting, Finance and Business Research	2018	24

Discussion

Many investors have experienced unusual levels of variance in cryptocurrency investment indices across different market cycles. Recognizing a crypto asset in a classification requires the company to select a model for its subsequent valuation. In practice, the most commonly used models are those for measuring crypto assets at fair value. Companies identifying as broker-traders are in a particularly advantageous position (Adhami et al., 2018). When classifying crypto assets as inventory, broker-traders measure them at fair value less costs to sell. An analysis of the accounting policies of some broker companies has shown that they inform users of the financial statements that the cost of sale is insignificant (Ankenbrand et al., 2020). Therefore, the amount at which crypto assets are measured at fair value less costs to sell approximates their fair value. Since crypto assets are reflected as short-term (or current) assets, i.e., they are not long-term investments, their revaluation is reflected in profit or loss without accumulating value gains in equity through other comprehensive income. This research, while confirming the findings of Yatsyk and Shvets (2020), emphasizes the necessity of using cryptographic tools, especially cryptocurrencies, as essential and important features of the digitization of the economy.

For an entity, merely selling goods or providing services for bitcoin is not sufficient to classify it as cash, unless the entity also uses bitcoin for purchases, which does not seem to be the case today. Furthermore, the current high volatility of bitcoin prices fails the "readily convertible to known amounts of cash" and "insignificant risk" tests. This eliminates the potential for classification as cash and cash equivalents (Baur et al., 2015; Blahušiaková, 2022).

In investigating the potential classification as property, we found that bitcoin does not qualify as property under standards IAS 16 and IAS 40. As a financial asset, Bitcoin is not an equity instrument of another entity, it is not a contract, and it does not confer any contractual rights. Therefore, bitcoin cannot be classified as a financial asset, except for the possibility of a cash classification in certain limited circumstances (Adhami et al., 2018; Procházka, 2018).

In analyzing the classification of bitcoin as inventory, we found that IAS 2 defines inventories as assets held for sale in the ordinary course of business, in the process of production for such sale, or in the form of materials or supplies to be consumed in the production process or in the rendering of services. Though this definition does not seem to fit Bitcoin, Bitcoin mining might be considered a "process of production." However, careful evaluation is needed to determine whether these are held for sale in the ordinary course of business, which does not appear to be the case currently (R. Brukhanskyi & Spilnyk, 2019; Pastrana & Suarez-Tangil, 2019).

As a result, we found that classifying bitcoin as an intangible asset is the most appropriate if it is not classified as cash or a monetary asset. There are currently several types of cryptocurrency and more than 1,000 tokens. The rapid development of cryptocurrency is influenced by various factors, including the lack of personification of the parties to the transaction, information security, free international circulation, and a decentralized payment system. The dynamics of the global

market are important since Bitcoin is the most popular cryptocurrency, driving a series of events in the cryptocurrency market.

Limitations and Suggestions

One limitation of this study is the challenge in generalizing its findings, as the research focused on non-Iranian companies that operate under different economic conditions than those in Iran. Another limitation of this research was the timing. Since this study was conducted in the first half of 2024, and 2025 the researcher did not have access to articles that were accepted for publication in the second half of the year and later. Considering the map of overlay visualization of the co-occurrence of frequently repeated keywords, and considering the colors, nodes, and links, one can identify existing gaps. Nodes that are not linked can represent potential areas for future research. For example, researchers can investigate areas with keywords such as profitability, cryptocurrency, and human capital.

References

Adamik, F., & Kosta, S. (2019). Smartexchange: decentralised trustless cryptocurrency exchange. *Lecture Notes in Business Information Processing*, *339*, 356–367. https://doi.org/10.1007/978-3-030-04849-5_32

Adhami, S., Giudici, G., & Martinazzi, S. (2018). Why do businesses go crypto? An empirical analysis of initial coin offerings. *Journal of Economics and Business*, *100*, 64–75. https://doi.org/10.1016/J.JECONBUS.2018.04.001

Alqaryouti, O., Siyam, N., Alkashri, Z., & Shaalan, K. (2020). Cryptocurrency usage impact on perceived benefits and users' behaviour. *Lecture Notes in Business Information Processing*, *381 LNBIP*, 123–136. https://doi.org/10.1007/978-3-030-44322-1_10

Ankenbrand, T., Bieri, D., Cortivo, R., Hoehener, J., & Hardjono, T. (2020). Proposal for a Comprehensive (Crypto) Asset Taxonomy. *Proceedings - 2020 Crypto Valley Conference on Blockchain Technology, CVCBT 2020*, 16–26. https://doi.org/10.1109/CVCBT50464.2020.00006

Baur, A. W., Bühler, J., Bick, M., & Bonorden, C. S. (2015). Cryptocurrencies as a disruption? empirical findings on user adoption and future potential of Bitcoin and Co. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, *9373*, 63–80.
https://doi.org/10.1007/978-3-319-25013-7_6

Blahušiaková, M. (2022). Accounting for Holdings of Cryptocurrencies in the Slovak Republic: Comparative Analysis. *Contemporary Economics*, *16*(1), 16–31. https://doi.org/10.5709/CE.1897-9254.466

Brandon, D., Holt, T., Jones, J., Long, J. H., & Stanley, J. (2024). The case of bitcoins: Examining the financial accounting and reporting issues surrounding cryptocurrencies. *Journal of Accounting Education*, *67*, 100902.

Bonsón, E., & Bednárová, M. (2019). Blockchain and its implications for accounting and auditing. *Meditari Accountancy Research*, *27*(5), 725–740. https://doi.org/10.1108/MEDAR-11-2018-0406/FULL/XML

Brukhanskyi, R. F., & Spilnyk, I. V. (2019a). Crypto Assets in the System of Accounting and Reporting. *The Problems of Economy*, *2*(40), 145–156. https://doi.org/10.32983/2222-0712-2019-2-145-156

Brukhanskyi, R. F., & Spilnyk, I. V. (2019b). Crypto Assets in the System of Accounting and Reporting. *The Problems of Economy*, *2*(40), 145–156. https://doi.org/10.32983/2222-0712-2019-2-145-156

Brukhanskyi, R., & Spilnyk, I. (2019). Cryptographic Objects in the Accounting System. *2019 9th International Conference on Advanced Computer Information Technologies, ACIT 2019 - Proceedings*, 384–387.
https://doi.org/10.1109/ACITT.2019.8780073

Hong, G., Zhang, L., Yang, M., Yang, Z., Nan, Y., Zhang, Y., Duan, H., Yang, S., Zhang, Z., & Qian, Z. (2018). How you get shot in the back: A systematical study about cryptojacking in the real world. *Proceedings of the ACM Conference on Computer and Communications Security*, 1701–1713. https://doi.org/10.1145/3243734.3243840

Hsu, A. W. hsin, & Liu, S. H. T. (2016). Organizational structure, agency costs, and accrual quality. *Journal of Contemporary Accounting and Economics*, *12*(1), 35–60. https://doi.org/10.1016/J.JCAE.2016.02.002

Kinash, I., Andrusiv, U., Golovnia, O., & Popadynets, I. (2019). Aspects of the formation and development of innovation infrastructure in Ukraine. *Management Science Letters*, *9*(Special Issue 13), 2403–2414. https://doi.org/10.5267/J.MSL.2019.7.015

Luo, M., & Yu, S. (2024). Financial reporting for cryptocurrency. *Review of Accounting Studies*, *29*(2), 1707-1740.

Morozova, T., Akhmadeev, R., Lehoux, L., Yumashev, A., Meshkova, G., & Lukiyanova, M. (2020). Crypto asset assessment models in financial reporting content typologies. *Entrepreneurship and Sustainability Issues*, *7*(3), 2196–2212. https://doi.org/10.9770/JESI.2020.7.3(49)

Muhammad Fahmi, A., Azah Samsudin, N., Mustapha, A., Razali, N., & Kamal Ahmad Khalid, S. (2018). Regression based Analysis for Bitcoin Price Prediction. *International Journal of Engineering & Technology*, *7*(4.38), 1070. https://doi.org/10.14419/IJET.V7I4.38.27642

Nabilou, H., & Prüm, A. (2019). Ignorance, debt, and cryptocurrencies: The old and the new in the law and economics of concurrent currencies. *Journal of Financial Regulation*, *5*(1), 29–63. https://doi.org/10.1093/JFR/FJZ002

Pastrana, S., & Suarez-Tangil, G. (2019). A first look at the crypto-mining malware ecosystem: A decade of unrestricted wealth. *Proceedings of the ACM SIGCOMM Internet Measurement Conference, IMC*, 73–86. https://doi.org/10.1145/3355369.3355576

Procházka, D. (2018). Accounting for bitcoin and other cryptocurrencies under IFRS: A comparison and assessment of competing models. *International Journal of Digital Accounting Research*, *18*, 161–188. https://doi.org/10.4192/1577-8517-V18_7

Shen, D., Urquhart, A., & Wang, P. (2019). Does twitter predict Bitcoin? *Economics Letters*, *174*, 118–122. https://doi.org/10.1016/J.ECONLET.2018.11.007

Tarasova, T., Usatenko, O., Makurin, A., Ivanenko, V., & Cherchata, A. (2020). Accounting and features of mathematical modeling of the system to forecast cryptocurrency exchange rate. *Accounting*, *6*(3), 357–364. https://doi.org/10.5267/J.AC.2020.1.003

Yan, H., Yan, K., & Gupta, R. (2022). A Survey of the Accounting Industry on Holdings of Cryptocurrencies in Xiamen City, China. *Journal of Risk and Financial Management*, *15*(4). https://doi.org/10.3390/JRFM15040175

Yatsyk, T., & Shvets, V. (2020). Cryptoassets as an emerging class of digital

assets in the financial accounting. *Economic*   https://doi.org/10.21003/EA.V183-10
Annals-XXI,   *183*(5–6),   106–115.