

Cryptocurrency: The Accounting Perspective

Dr. Sonal Gupta¹, Dr. Sarla²

¹Assistant Professor, Ram Lal Anand College, University of Delhi.

²Assistant Professor, Department of Commerce, Indira Gandhi University, Meerpur, Rewari, Haryana.

ABSTRACT: The purpose of this paper is to examine the issues regarding accounting for cryptocurrency. An in-depth study of accounting standards is performed to scrutinise their appropriateness for the accounting of cryptocurrency. This research paper focuses on significant accounting aspects which are relevant for crypto accounting. The title of this paper is pointing toward the issues related to accounting for cryptocurrency which requires clarification. This paper will help in understanding the characteristics of cryptocurrency having relevance to business for accounting for them correctly as cryptocurrency has characteristics of currency as well as assets and can act as inventory for some businesses. This paper will analyse the accounting standards and accounting of cryptocurrencies in the financial statement of a company. This paper will also examine the requirement of making amendments to existing accounting standards or having a new accounting standard for the financial reporting of cryptocurrency. The qualitative approach is used in this research. Secondary data is used for this study as previous literature regarding the topic is used for collecting the data through published resources including journals and books. This study finds that cryptocurrency cannot be considered as a currency because of some of its characteristics but can be considered as inventory or intangible assets on the basis of the business model as it has a quasi-currency and quasi-asset nature. The accounting for cryptocurrency needs stand-alone standards to simplify its reporting in the books of accounts to compare financial statements and to maintain consistency in the financial reporting of cryptocurrency. This research area has a lot of potential regarding clarification and guidance of experts for avoiding future issues regarding the accounting of cryptocurrency.

KEYWORDS: Cryptocurrency, Intangible assets, Accounting, Financial reporting, Quasi-currency and Quasi-asset.

INTRODUCTION

Cryptocurrency is a kind of digital currency using the security of cryptography and is a new advancement in technological development. The significant characteristic of cryptocurrency is that it can be used to buy and sell products and services where payment is made through the crypto wallet. Hence, it is a digital method of exchange. Cryptocurrency is different from digital currency or other fiat currencies as Digital currency is issued by Central Bank but cryptocurrency is not backed by any regulatory authority (Brezoeva, 2020). Presently, Cryptocurrencies are a significant research area. The well-known cryptocurrencies are Bitcoin and Ethereum. This research will examine the issues related to accounting for cryptocurrency. This paper focuses on the accounting for cryptocurrency in the financial statement with relevant studies regarding standards of accounting and some journals and academic papers. Now, cryptocurrency is used for undertaking commercial dealings in the world of e-commerce and has become an option for investment. So, there is a need for accounting and valuing cryptocurrency to report it in the financial statement. There is a need for academic research on accounting for cryptocurrencies on how to report them in the financial statements.

Cryptocurrency does not perform all the uses of money but features including transparency, anonymity, scarcity value and government autonomy attract consumers, merchants, traders, netizens and speculators. However, cryptocurrency is still not spared from abuses like terrorism financing, money laundering, online black market, tax evasion and internet crimes (Yatsyk, 2017). This research examines the existing accounting standards which can be used for the accounting cryptocurrencies and the requirements of making amendments to the existing accounting standards or the need for a new accounting standard. The substantial market capitalization of cryptocurrency creates the requirements of accounting regulations to record the transactions of cryptocurrency.

LITERATURE REVIEW

Cryptocurrency is virtual money issued in an e-portfolio by a computer code without any intrinsic value. It is not backed by any govt or central bank and cannot be converted into any other thing. Cryptocurrencies cannot be determined as fiat currency like the dollar or tangible convertible assets like gold but can be determined with the interplay of demand and supply (Murray, 2018). Cryptocurrency has uncertainty due

to price volatility, lack of legal security and inelasticity of money supply. Cryptocurrency is subjected to various risks and is at a nascent stage because of its speculative and volatile nature. A lot of research is available on e-commerce but the accounting of cryptocurrency has less academic research including a study on the reflection of cryptocurrencies in financial statements (Makurin, 2021). A study identified different perspectives for solving the issue of how to integrate digital assets in financial data reporting and accounting systems. The focus of the author was on identifying and providing legal status to cryptocurrencies in the legal environment. The research focuses on crypto-assets acceptance by accounting and this is a complex approach but this innovative and perspective issue requires complicated solutions (Brukhansky and Spilnyk, 2019). This research identified a comparative feature of the major users of the cryptocurrency market which includes online exchangers, miners, cryptocurrency exchange markets, cryptocurrency emitters etc. This paper also examined different stages of economic agent's activities in the crypto-market to find out the related operations. This research also stated that in the coming years, the standard assets like bonds will also be digital which increases the possibility of the development of a new business model which can be decentralized on the basis of the blockchain model (Yatsyk, 2019). The author uses the stochastic model for forecasting the exchange rate of cryptocurrency and major emphasis was on the importance of representing some operations regarding cryptocurrency accounting and they recognized cryptocurrency as digital assets (Tarasova, et al., 2020). The study identifies the key characteristics of tokens as crypto-assets, which are not similar to cryptocurrencies. She also examined the issue of recognizing cryptocurrencies like bitcoin in accounting. The researcher showed it impossible to use a universal approach for cryptocurrency accounting because of functional and variety differences (Stovpova, 2018). The researcher considers the scenario where cryptocurrency can be considered as the foreign currency with the help of financial system regulators but they are not considering cryptocurrency as fiat currency (Prochazka, 2018). The author states that the demand for cryptocurrency and its mining is increasing day by day and the currency is gaining popularity in reforming the

financial system because of its loyalty (Yeze, 2019). But, Baur et al. (2015) found that cryptocurrency is a destructive method of payment. Nabilou and Prum (2019) confirmed that sooner or later, cryptocurrencies have a significant impact on the financial, monetary and banking systems.

RESEARCH METHODOLOGY

The method of research used in this paper is qualitative. Fundamental and descriptive research design has been used in this research paper. These research designs are used because the main aim of this paper is to gather more information regarding the accounting for cryptocurrency for improving the understanding and the collected information is also used in proffering solutions to issues faced. This method of research design is adopted while keeping in mind the set objectives and to get in-depth knowledge, analysis and accuracy of the research study. The data is collected through secondary sources such as existing works of literature, published journals, books and websites.

OBJECTIVES OF THE STUDY

- To examine the features of cryptocurrency for providing a perspective on the accounting of cryptocurrency.
- To analyse the requirement of making amendments to existing standards or having new standards for incorporating the increasing use of cryptocurrency.

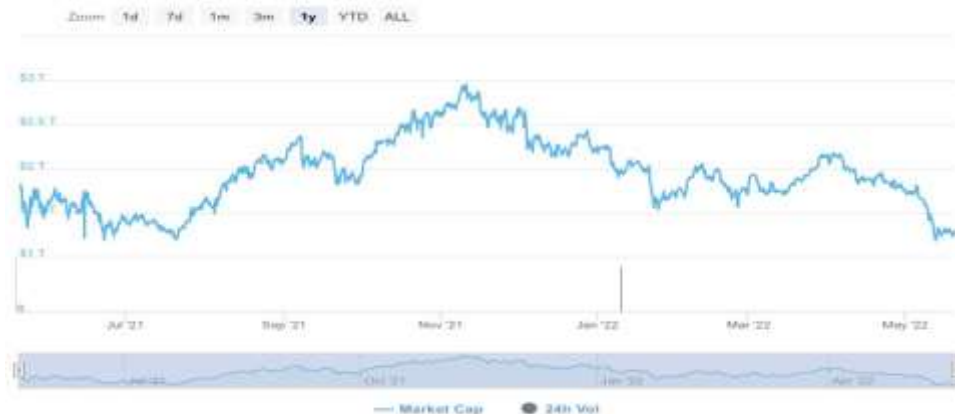
DISCUSSION

19,509 cryptocurrencies are having a market capitalisation of \$1,252,242,346,046 (All Cryptocurrencies | CoinMarketCap, 2022) (as at 20th May 2022). This highlights the growth in the use and consistent volatility in the market capitalisation of cryptocurrencies. There are presently 19,509 cryptocurrencies but only a few are spoken about and known about. The market capitalization of global crypto is \$1.25T. The total volume of the crypto market decreases by 8.66% in one day and totalled \$80.45B (All Cryptocurrencies | CoinMarketCap, 2022) (as at 20th May 2022).. the increasing crypto market shows the need for accounting regulations for cryptocurrency accounting.

Market capitalisation of Cryptocurrency

(Graph from coinmarketcap.com)

The volatility of cryptocurrency is high e.g., Bitcoin increased up to the price of \$68K and now decreased to approximately \$28K



during the past 12 months. As we can see in the charts of Ethereum and Bitcoin prices which are the most traded cryptocurrencies, it is found that in one year- the market cap of bitcoin once achieved approximately \$1.3T and then dropped to around 550 billion. (Graph from coinmarketcap.com)



We can also see similar fluctuations in Ethereum the market cap goes from 240B to 560B dollars and then falls back to 250B dollars again(All Cryptocurrencies | CoinMarketCap, (Graph from coinmarketcap.com)

2022) (as at 20th May 2022).. The volatility of cryptocurrency is visible in the charts below and it can be concluded as a risky investment.



It shows that the trend of digital currency is increasing in recent times and now a controversy has arisen on how to account for digital currency in the financial statements and its tax treatment. Cryptocurrency is volatile and an increase in the use of cryptocurrency may require new regulations and standards. The increase or decrease in the cryptocurrency's fair value and accounting of cryptocurrency as an asset is a grey area. Currently, accounting standards do not include cryptocurrency explicitly so a question arises, cryptocurrency is an asset or not? If the answer is yes, then cryptocurrency is what type of asset and if the answer is no, then it can be classified under what. We will presume that cryptocurrency is meeting the definition of an asset, and then the below-mentioned accounting standards will apply to it.

- **Cash (IFRS 9: Financial Instrument or IAS 7: Statement of cash flow)**

Under IAS 7, cash is defined as cash in hand and demand deposit. Under IAS 32 the definition of financial instruments includes cash as it is a medium of exchange and is a means of recognizing and measuring the transactions in financial statements (Ryabova & Henderson, 2019). There are some financial instruments which are equivalent to cash. IAS 7 mentions cash equivalents which refer to those financial instruments that are presented along with cash in cash flow statements. The definition of cash equivalent under IAS 7 is a highly liquid and short-term investment which can be readily converted into cash and have an insignificant risk of value change (Sterley, 2019).

The major issue with cryptocurrency such as bitcoin is its use as a payment method or investment property. Bitcoin is used by customers for purchasing products but it is considered as the transaction of property instead of a normal transaction in business which leads to reporting issues in the books of accounts. The high volatility of cryptocurrency makes it difficult to convert it into cash as other cash equivalents can which is an issue in its acceptance and it cannot be considered as short term due to which cryptocurrency does not fulfil the requirements of being cash or cash equivalents. Cash is backed by a central bank or government whereas cryptocurrencies are legal tenders and backed by the substance in jurisdictions. Therefore, cryptocurrencies cannot be termed as cash or other cash equivalents under accounting standards.

- **Non-cash financial assets (IAS 32)**

Under IAS 32, a financial instrument is a contract which creates an equity instrument or financial liability of one entity and financial assets of another entity (Tarasova, et al., 2020). Digital currency does not meet the definition of a financial instrument due to the need for a contractual relationship. The holder

of a financial instrument has the right of receiving cash or any other financial assets. Cryptocurrency holders do not have contractual obligations as the owner can sell it which depends upon the rate of conversion on the date. Hence, in our opinion, the digital currency does not meet the condition of being a financial instrument.

- **Investment property (IAS 40)**

When cryptocurrency is compared to investment property, it meets a criterion that it is held for appreciation of capital but cryptocurrency is not a property. The issue of tangibility arises as IAS 40 deals with tangible property such as buildings or land. So, it is clear that cryptocurrency cannot be considered an investment property.

- **Intangible assets (IAS 38)**

The definition of IAS 38 includes intangible assets as non-monetary identifiable assets which do not have physical existence (Stovpova, 2018). It defines monetary assets as assets which can be received in a determinable or fixed amount of money and money held. We will discuss the elements under the definition of intangible assets:

- **Asset-** IAS 38 defines assets as a resource of an entity which can offer economic benefits in future. An entity having digital currency can get economic benefits by using it as a payment method or by selling it.
- **Identifiable-** An asset is considered identifiable under IAS 38 if it can be separated or if arises out of legal or contractual right. Cryptocurrency is identifiable as it can be sold in the exchange.
- **No physical existence-** Cryptocurrencies are exactly digital without any physical existence.
- **Non-monetary-** We already discussed that cryptocurrencies cannot be treated as cash under IAS 38. Hence, it can be a non-monetary asset.

Hence, in our opinion, while considering the existing literature of IFRS, cryptocurrencies would fulfil the requirements of being an intangible asset. But, under IAS 38, the accounting treatment of cryptocurrency will not be able to offer useful and relevant financial information.

- **Inventory (IAS 2)**

A cryptocurrency fulfils the condition of being an intangible asset but IAS 38 do not include the intangible asset of an entity available for sale in a normal business course and under IAS 2, those

intangible assets can be treated as inventory (Ramassa & Leoni, 2021). Under IAS 2, individuals holding cryptocurrency for selling it to obtain future gains can be treated as inventories. Cryptocurrency can be valued at net realizable value or at cost, whichever is less. This accounting treatment of cryptocurrency looks logical but only brokers of

commodities can use it who comes under the broker's definition.

Hence, in our opinion, cryptocurrencies can be accounted for under IAS 38 or IAS 2 but there is no clarity that cryptocurrency should be interpreted as a commodity under IAS 2.

IFRS treatment for cryptocurrency

Accounting standard	Category	Acceptance
Statement of cash flows: IAS 7	Cash and cash equivalents	No
Non-cash financial assets: IAS 32	Financial asset at fair value through profit or loss	No
Investment property: IAS 40	Investment property	No
Intangible assets: IAS 38	Intangible assets	Yes
Inventories: IAS 2	Inventory	Yes (under specific conditions)

FINDINGS OF THE STUDY

This study analyses the existing IFRS literature and found that cryptocurrencies could be treated as intangible assets defined in IAS 38 or as Inventory defined in IAS 2 defined in some situations or as transactions of commodity broker-trader having exemption under IAS 2.

- **Intangible assets:** There are two options to measure cryptocurrencies under IAS 38 which are the cost, model and the revaluation model. Under the cost method, the impairment charge under IAS 36 is reported in the profit and loss statement. The revaluation method accounts for changes in fair value as an increase in fair value is considered as other comprehensive income whereas, the decrease is reported in the profit and loss statement. The revaluation method needs the establishment of an active market for cryptocurrency.
- **Inventory:** Under IAS 2 inventory is measured at net realizable value or at cost whichever is lower. Net realizable value refers to the estimated sales price in normal business transactions after deducting the estimated completion cost and costs essential for making the sale.
- **Commodity broker-trader:** Under IAS 32 the transaction of commodity broker-trader should be recorded at fair value after deducting the cost of selling via profit and loss.

After analysing the existing accounting literature and finding that cryptocurrency can be treated either as inventory under IAS 2 or as intangible assets under IAS 38. The rapid need for standard-setting activity is found to offer proper guidance for preparing financial statements which offer useful and relevant information to its users. The problem could be addressed by making amendments to existing accounting standards or by issuing new IFRS.

- **Amendments in the definition of cash and cash equivalents:**

Amendment can be made for including digital currency specifically but it is found appropriate until cryptocurrency becomes a widely accepted exchange medium and backed by the central bank.

- **Amendments in the definition of financial assets:** Amendment can be made in the definition of financial assets for including digital currency or it can be included in the scope of IFRS 9 or IAS 39 but it is found inappropriate to make an amendment for including cryptocurrency as it leads to exceptions to clear principle.

- **Amendments in measurement guidance under IAS 38 and IAS 2:**

Amendments can be made to measure cryptocurrencies at fair value via profit or loss but it is also found inappropriate as it will create vital scoping issues.

- **Issue a new stand-alone accounting standard:**

A new accounting standard can be issued for dealing with cryptocurrency accounting. The stand-alone accounting standard will address the issue regarding investment in intangible commodities and assets. It will help in solving the problem regarding emission trading rights and offer proper guidance regarding the treatment of cryptocurrency. It will resolve the currently existing diversity in practice and offers data or information to its users as it measures intangible assets for investment via profit or loss at fair value.

CONCLUSION

As mentioned in the introduction, the purpose of this research is to discuss the accounting for cryptocurrency. The paper focuses on the present scenario regarding the accounting for cryptocurrency and asset classification according to the

existing norms of accounting and assesses the need for amendments to existing accounting standards or the need of issuing new accounting standards to simplify accounting for cryptocurrency. In this paper, it is concluded that a new IFRS is needed and confusion regarding asset classification is also clarified. The paper concludes that cryptocurrency can be treated as an investment tool and considering it as the intangible asset will also be a rational view. Hence, this paper concludes that for comparability and consistency of financial statements, some norms and rules should be set for enabling uniform and correct disclosure and treatment of cryptocurrency in financial statements.

REFERENCES

1. Accounting for Cryptocurrency - IFRS (2022). Available at: <http://pwc.blogs.com/ifrs/2017/11/accounting-for-cryptocurrency.html> (Accessed: 20 May 2022)
2. *All Cryptocurrencies | CoinMarketCap* (2022). Available at: <https://coinmarketcap.com/all/views/all/> (Accessed: 20 May 2022).
3. Baur, A. W., Bühler, J., Bick, M., & Bonorden, C. S. (2015, October). Cryptocurrencies as a disruption? empirical findings on user adoption and future potential of bitcoin and co. In *Conference on e-Business, e-Services and e-Society* (pp. 63-80). Springer, Cham.
4. Brezoeva, B. (2020). The Cryptocurrency-Accounting Challenge. *Nauchni trudove*, (1), 53-75.
5. Foy, J. (2019). Financial Accounting Classification of Cryptocurrency.
6. Brukhanskyi, R. F., & Spilnyk, I. V. (2019). Crypto assets in the system of accounting and reporting. *The Problems of Economy*, 2, 145-156.
7. Liu, Y., Tsyvinski, A., & Wu, X. (2021). Accounting for Cryptocurrency Value. Available at SSRN 3951514.
8. Макурін, А. (2020). Display of cryptocurrency in accounting. *Економічні горизонти*, (3 (14)), 13-22.
9. Makurin, A. A. (2021). Cryptocurrency As an Object in Accounting. *Publishing House "Baltija Publishing"*.
10. Murray, J. (2018). The coming world of blockchain: a primer for accountants and auditors. *The CPA Journal*, 88(6), 20-27.
11. 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.
12. 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(24), 161-188.
13. Raiborn, C., & Sivitanides, M. (2015). Accounting issues related to Bitcoins. *Journal of Corporate Accounting & Finance*, 26(2), 25-34.
14. Ramassa, P., & Leoni, G. (2021). Standard setting in times of technological change: accounting for cryptocurrency holdings. *Accounting, Auditing & Accountability Journal*.
15. Ryabova, T. S., & Henderson, S. (2019). Integrating Cryptocurrency into Intermediate Financial Accounting Curriculum: A Case Study. *Journal of Accounting & Finance* (2158-3625), 19 (6).
16. Spilnyk, I., & Yaroshchuk, O. (2020). CRYPTOCURRENCY INSTITUTIONALIZATION: REGULATION, LEGAL STATUS, ACCOUNTING AND TAXATION. *The Institute of Accounting, Control and Analysis in the Globalization Circumstances*, 1(2), 81-92.
17. Sokolenko, L., Ostapenko, T., Kubetska, O., Portna, O., & Tran, T. (2019). Cryptocurrency: Economic essence and features of accounting.
18. Sterley, A. (2019). Cryptoassets: Accounting for an Emerging Asset Class. *The CPA Journal*, 89(6), 6-7.
19. Stovpova, A. S. (2018). Classification of electronic money for accounting purposes. *Investyciji: praktyka ta dos-vid*, 14.
20. Subačienė, R., & Kurauskienė, N. (2020). Evaluation of alternatives of cryptocurrency accounting. *Buhalterinės apskaitos teorija ir praktika*, 22, 4-4.
21. 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.
22. Yatsyk, T. V. (2017). Methods of financial accounting of cryptocurrency as special type of electronic money. *Молодий вчений*, 353.
23. Yatsyk, T. V. (2019). Ponyattya krypto-aktyviv u systemi finansovoho obliku [The concept of crypto-assets in the financial accounting system]. *Molodyy vchenyy-Young scientist*, 2(66), 295-298.
24. Yiying, W., & Yeze, Z. (2019, March). Cryptocurrency price analysis with artificial intelligence. In *2019 5th International Conference on Information Management (ICIM)* (pp. 97-101). IEEE.