Accounting for Cryptocurrencies

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Abstract

Cryptocurrencies have emerged as an instrument of exchange, typical of the role of money. But in a short time, due to high fluctuations. Cryptocurrencies have become derivative financial instruments because of large increases in a very short time. Like any financial instrument it had a correction period, which brought huge losses to investors.

Accounting for cryptocurrencies is a common problem nowadays. This new method of exchange also affects the life of companies. At first cryptocurrencies directly affected individuals, but as their popularity grew, they began to become involved in the economic life of companies. These economic acts need to be reflected in the economic statements of companies. There is no clear regulation on how to account for these cryptocurrencies.

The aim of the paper is to address the need for regulation in the crypto area. The new financial instrument to be presented in a company's financial statements.

Key words: cryptocurrencies, financial instrument, financial statements **J.E.L classification:** G20, M41

1. Introduction

Clear regulations on how to account for them have not yet appeared. A European regulation has appeared which includes legal terms. These cryptocurrencies imply many benefits for users but the European regulation makes users aware that there are also obligations. These obligations are mainly of a legal nature.

These regulations do not exist for the accounting professional, so methods and techniques are sought to present them in the financial statements. The presentation of cryptocurrencies in financial statements must reflect reality and not manipulate certain results.

The only options are to find a solution through the classical accounting regulations. However, something unique and identical can be created for these cryptocurrencies. For a more accurate and realistic presentation, a new heading can be created in the financial statements. Thus, in addition to the basic activity of the company reflected classically. The financial statements should also include a section dedicated to cryptocurrencies. This new heading should include the profit from trading as well as tax and contributions.

2. Theoretical background

After the 2008 financial crisis, central banks expanded their monetary base through quantitative easing programmes, which aimed to reduce inflation. It was also around this time that a new technology-based financial asset emerged. Cryptocurrencies are unregulated assets and do not depend on any institution. The price is set freely in the market according to supply and demand. The first cryptocurrency to appear on the market is Bitcoin, whose creator is Satoshi Nakamoto. The clear identity of Satoshi Nakamoto is still anonymous (Nakamoto, 2008).

Cryptography facilitates cryptocurrency transactions between virtual wallets, each with a private key that blocks the transaction from being changed from one person to another. These transactions are secure and cannot be prevented.

Mining is the term for the creation of cryptocurrency, it is defined by the fee charged by the person who intermediates the payment. The miner provides the technical support to be able to transfer a cryptocurrency from one wallet to another. The main disadvantage is that this technological process consumes a lot of electricity. (Pastrana *et al*, 2019)

The crypto wallet is the place where the investor keeps his or her money until it is used. There are two types of wallets, a hot wallet wallet directly within the platform. But there is also a ledger wallet, where coins are stored offline (Suratkar *et al*, 2020).

"Analysis of Geographic Trends in Cryptocurrency Adoption and Usage" is adopted in 154 countries. There is a decentralised DEFI site that tracks transaction volume for each country. According to research, transaction volume increases exponentially from one year of use to the next.

"Cryptocurrency adoption: current stage, opportunities, and open changes" in this paper discusses the opportunities created by the emergence of cryptocurrencies. The ease of use and the increasing quality of life of users for the exchange of coins between them. However, the reverse side of the paper talks about the financial risks that arise from this phenomenon (Al-Amri, 2019).

In research from Bank of Canada "The Economics of Cryptocurrency Bitcoin and Beyond" it is shown that Bitcoin can create market instability compared to traditional payment instruments. Inflation rates can rise sharply, as the transaction fee can be higher because of the energy it consumes to make it. Thus, it can be interpreted that cryptocurrencies in particular Bitcoin can be a speculative element, but is not seen as a payment instrument (Chiu *et al*, 2018).

Taxation of cryptocurrencies differs depending on the country of residence. Most investors look for the best tax rate variant to speculate and pay the least amount to the authorities.

3. Research methodology

The main data sources we used were published literature, recorded videos, information taken from the market.

The main research technique is that we analysed the data and sources obtained. Data and information were interpreted based on common best practices. An attempt was made to approach the topic using a comparative method, but this could not be possible because cryptocurrencies are unique and cannot be compared to any financial instrument.

The limitations of the research are only in the limited material available, so the topic is still a little addressed one. The main sources were scientific articles in the international scientific literature.

4. Findings

Globally, there is a need for clear regulation of the cryptocurrency issue. The subject has become a global issue, so a way of regulation must be found for a good practice of companies and countries where such activities are carried out. There are multiple and specific regulatory possibilities depending on the country of reference and the object of activity of the crypto companies. The legal regulation that has emerged cannot control to an almost absolute extent the presentation of these instruments in financial statements.

Cryptocurrencies are not without tax liabilities. The tax liabilities applied are taxable (Cong *et al*, 2023). Thus, if these assets are presented separately from the rest of the items in the profit and loss account it is possible to maintain a correct tax treatment.

Each company has to pay a tax of the trading profit after deducting the costs involved in the transaction. This independent presentation increases the possibility of this method. The main reason for maintaining the 10% rate regardless of the type of company we are talking about is to reduce the possibility of money laundering. Because in Romania there are certain tax rate reductions for certain companies. Investors will turn their attention to these types in order to be able to pay as little tax as possible on gains from cryptocurrency transactions.

However, there is the possibility that a trading company does not actively trade these cryptocurrencies and at the time of reporting there is a certain amount in their wallets. Thus, a special note should also be created dedicated to the reporting of the types of cryptocurrencies held by them in their wallets together with the quantity held. This information must be understandable and interpretable to everyone, so a conversion based on the exchange rate at the reporting date can be

created. However, the focus of this accounting presentation should be kept around quantity information, as this is the most important. Quantity is the most relevant as the value can fluctuate tremendously from month to month.

These reports are very sensitive, so the regulation in this context must be very serious, and why not inspired by international accounting. Because these regulations must contain as many examples and possibilities as possible, so that the accounting profession can apply a template. As an instrument of fluctuating value, the regulation should not allow the application of an accounting rationale, but rather a template proposed by the authorities. This creed does not allow the application of reasoning that encourages money laundering. (Sanchez *et al*, 2017)

Also the accounting for cryptocurrencies varies greatly depending on the type of activity performed with these assets, as a company can buy and sell them in a short period of time (trading) to make a profit. For these desired profits one can also use top leverage procedures, which are very common in this area of trading (Dongxu *et al*, 2024). The second variant can be companies buying stable cryptocurrencies for the medium to long term. The terms cannot be compared with those in accounting. Long term in the crypto world can mean 3 months.

But besides this, accounting must also address the issue of those crypto service providers. These providers broker transactions and charge a fee. At the end of the day, month or year the fee from brokering crypto transactions becomes the company's profit and will fulfill the purpose for which it was recorded.

Possibilities of accounting based on the rules and clarifications made by the professional body in Romania, depending on the activity and object of activity of the company in question:

Cryptocurrencies recorded in the accounts as inventories are representative for short-term investment companies. These companies have the basic economic objective to produce profit from these transactions. Thus, the core objective of the company is to buy and sell at a profit a certain amount of a certain type of cryptocurrency, as these companies will rely on investment diversification (Paunescu, 2020)

Thus, the trial balance account used will be 371. This is the account reflecting the amount of cryptocurrency held at a given time in the financial statements. Also, when cryptocurrency is sold against 371, an expense must be recorded. The whole accounting process must be done in this way:

The first step is to purchase cryptocurrencies from a regulated platform. This platform plays the role of a provider. The transaction will be classically reflected, the inventories purchased in exchange with the provider. In the practical side of things, this crypto transaction is based on the purchase of a quantity of cryptocurrency and its storage on a hot wallet.

At the time of sale, these cryptocurrencies are taken off the company's books. First of all, an income from the sale of these cryptocurrencies must be recorded (KPMG, 2019). This income is closely related to a classic cash account. The second transaction is that the cryptocurrency has to be discharged from the company's accounts against an expense.

The real challenge for accountants is companies that trade a large amount in a very short time. Several dozen or even hundreds of sales and purchases can be recorded in a single day for a single type of cryptocurrency.

Cryptocurrencies issued by a trading company in order to be traded on a regulated market. The trial balance account used will be an intangible asset account. Following the technical process of creating a cryptocurrency, it must be recorded in the financial statements when the process is completed. When the decision is made to sell on a platform, the IPO process begins (Mitchell, 2018). During the IPO process, the entire value of the cryptocurrency is transferred against the receivable to be collected. The crypto project must be highlighted in the financial statements at the time the sale is complete. If the sale has not gone through all the steps there is a chance that it will become a failure. This failure will lead to the return of the money collected to the investors in the project phase. This accounting idea is a challenge for accountants. This cryptocurrency IPO cannot be compared in any way to the classic IPO for a company.

In addition to all these standards and accounting possibilities, another aspect must be taken into account. Cryptocurrencies carry risks in addition to the risk that their value may decrease for market reasons (Yukun *et al*, 2022). Company risks can also consist of theft, as it is an asset on the internet there can be certain attacks on wallets. There is also a risk of forgotten passwords or loss of physical wallets. Cryptocurrencies can be stored offline on certain devices similar to memory sticks.

The research method used is simulation, as clear regulation does not yet exist in this segment. The research was based on understanding the phenomenon and the technology and comparing it with a possible presentation in financial news. The comparison method cannot be used for more than one entity because this information does not yet exist. Very few companies have been open to using these assets in their perimeter of activity because they could not take the legal risks that might arise.

A real challenge for accounting is the recognition of NFTs in financial statements (Zhang, 2024). These are graphical representations with certain symbolism. NFTs are traded on the basis of prices determined by supply and demand. This blockchain product cannot be framed as an exchange currency. This is quite apparent, as there is no regulation for them, but there are entrepreneurs producing and selling such products. From an accounting point of view, these NFTs can be accounted for in financial statements as inventory or tangible assets. The subject cannot not be addressed together with cryptocurrencies because they come from the same world. Also, the market has shown the potential of price-related NFTs, as there have been transactions of a high material value, relative to the classical exchange currency (Heejung, 2024)

The most important part of these graphical representations in relation to accounting is whether they can be recognised as intangible assets. NFTs have no impact on a company's business, so do not meet one of the conditions. But on the other hand, neither can it be recognized as inventory. It cannot be recognised as inventory because its investment purpose is projected to be long term and thus would affect the performance indicators related to inventory. The age of inventories will lead to the need to recognise a provision in the accounts

5. Conclusions

Cryptocurrencies are the fantastic new tools that can bring a boost to a company or bankrupt it overnight. This uncertainty and risk makes them attract more and more risk takers. Thus, financial statements need to reflect these aspects for a correct accounting. In particular, companies that carry out a separate activity from crypto transactions must account for these gains or losses separately in order not to distort financial statements.

An accounting version can also be used, but these financial statements hide the performance of the core business. Accounting for cryptocurrencies remains a challenge for accountants and they need to be helped by the standards and rules issued in this area. For quality work accountants need to work very well with the IT department to understand the technological process behind a transaction. The accountant also needs to work with the investment department to be able to get in touch with the instability of the market.

The theoretical importance applied in a practical way of the research results is the awareness of the importance of the subject. Accounting is one of the oldest sciences because man has always needed a clear record of the result of the activity performed. Even if this specialization is one of the oldest, it has a very high rate of progress. The economy and the activities performed by the individual have progressed, but the goal has always remained the same. That is why society must now accept this new method of exchange. And, accounting must provide a clear certainty and adaptability on the presentation in financial statements.

The research on this topic is intended to provide a variant on how to orient the future of crypto in Romania. Once this world is clarified and regulated, entrepreneurs will have a greater openness to the topic. Also, serious regulation may attract foreign investors who can rely on the legality of their activity. These investors may be attracted by stability as well as tax rules and rates.

6. References

- Al-Amri, R., Zakaria, N., Habbal, A., Hassan, S, 2019. Cryptocurrency adoption: current stage, opportunities, and open challenges. *International Journal of Advanced Computer Research*, Vol 9(44), p. 2277-7970 <u>https://doi.org/10.19101/IJACR.PID43</u>
- Chiu, J., Thorsten V. K, 2018. The Economics of Cryptocurrency Bitcoin and Beyond. SSRN Electronic Journal, 10.2139/ssrn.3048124 <u>https://doi.org/10.2139/ssrn.3048124</u>
- Cong, L., Landsman, W., Maydew, E., Rabetti, D., 2023. Tax-loss harvesting with cryptocurrencies. Journal of Accounting and Economics, Vol. 76, Issue 4 <u>https://doi.org/10.1016/j.jacceco.2023.101607</u>

- Dongxu, L.Y., NingPeng W., 2024. Attention to global warming, consensus transition, and crypto trading. *Pacific-Basin Finance Journal*, June 2024
- Heejung, L., Geun-Cheol, L., Hoon-Young, K., 2024. Exploring the relationship between rarity and price of profile picture NFT: A formal concept analysis on the BAYC NFT collection. *Blockchain: Research and Applications*, No. 2, p. 100191 <u>https://doi.org/10.1016/j.bcra.2024.100191</u>
- KPMG, 2019. Cryptoassets Accounting and tax [online] Available at: https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2019/04/cryptoassets-accounting-tax.pdf
- Mitchell, K., 2018. Blockchain IPOs: capital raising in a crypto-world. Without Prejudice, Vol. 19, No. 1 [online] Available at: <u>https://hdl.handle.net/10520/EJC-13bdf47720</u>
- Nakamoto, S., 2008. *Bitcoin: A Peer-to-peer Electronic Cash System* [online] Available at: https://bitcoin.org/bitcoin.pdf
- Pastrana, S., Saurez-Tangil, G., 2019. A first look at the Crypto Mining Malware Ecosystem: A decade of unrestricted wealth. IMC '19: Proceedings of the Internet Measurement Conference, pp. 73 86 https://doi.org/10.1145/3355369.3355576
- Paunescu, M., Popa, A. F., Ciobanu, R., 2020. Propuneri privind inregistrarile in contabilitate a criptomonedelor potrivit reglemetarilor contabile romanesti [Proposals regarding the accounting records of cryptocurrencies according to Romanian accounting regulations]. CECCAR Business Review, pp. 11-24 https://doi.org/10.37945/cbr.2020.09.02
- Sanchez, E.G., 2017. Crypto-Currencies: The 21st Century's Money Laundering and Tax Havens. *University of Florida Journal of Law and Public Policy*, Vol. 28, Issue 1, Article 6
- Suratkar, S., Shirole, M., Bhirud, S., 2020. *Cryptocurrency wallet*. 4th International Conference on Computer, Communication and Signal Processing (ICCCSP) <u>https://doi.org/10.1109/ICCCSP49186.2020.9315193</u>
- Zhang, W., Tiantian, L., Zhang, Y., Hamori, S., 2024. Can NFTs hedge the risk of traditional assets after the COVID-19 pandemic? *The North American Journal of Economics and Finance*, Elsevier, vol. 72(C) <u>https://doi.org/10.1016/j.najef.2024.102149</u>
- Yukun, L., Aleh, T, Xi, W., 2022. Common Risk Factors in Cryptocurrency. *Journal of Finance*, vol. 77, issue 2, pp. 1133-1177 <u>https://doi.org/10.1111/jofi.13119</u>