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Accounting of Cryptocurrency

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Abstract

With the development of technology today, the concept of crypto money emerged in 2008. With this development, cryptocurrencies began to be considered indispensable concepts. Thus, countries were expected to take steps in terms of their accounting. While some countries have taken concrete steps in accounting and taxation, some have not yet taken steps. In this study, brief information about cryptocurrencies was given and current developments were explained. Several suggestions have been made for countries that have not yet completed their work in this regard, and why cryptocurrencies should be taxed is mentioned. In addition, by examining the IASB and IFRS recommendations, it was evaluated which asset class cryptocurrencies could enter. With these evaluations, it has been suggested in which asset class cryptocurrencies can be accepted for Turkey and the countries that have not completed their work.

Keywords: Money, Bitcoin, Crypto-Asset, Accounting, Taxation, Cryptocurrencies

1. Introduction

In the changing world order over time, nothing stays the same. There has always been a change in trade, such as the exchange method used in the early days. Then the use of precious metals such as gold and silver, and the transition to money. However, today, with the developing technology, a currency has emerged, "cryptocurrencies". Cryptocurrency may have existed in today's technology in a predictable future, but its use and importance have been increasing at such a rate since 2008, the year it was first introduced, that no one could have predicted this much. Cryptocurrencies have gradually started to replace real money, and such events force countries to change their laws. Created by Satoshi Nakamoto in 2008, bitcoin is the forerunner of cryptocurrencies. After bitcoin, over 10000 cryptocurrencies were emerged and continue to be issued.

People's interest in this sector is increasing day by day, and they are starting to enter this sector more and more. As of the current year, the number of cryptocurrency exchanges has increased considerably. Cryptocurrency exchanges are simple to use. Its deposits and withdrawals are made very easy. Where people's interest increases, states need to make decisions in this direction. Accounting and taxation of cryptocurrencies are one of the things that states want to do in this direction. Most countries may not have taken the necessary steps about cryptocurrency taxation but even in them, the work is progressing rapidly. Some countries impose bans on bitcoin and bitcoin mining. In addition, El Salvador has recently accepted bitcoin as its legal currency.

In this article, general information about cryptocurrencies is given. Also, questions such as "what is crypto money" are answered. At the same time, opinions about taxation or accounting for crypto money and the decisions taken by some countries in this direction are explained

2. Cryptocurrencies

2.1. History of Cryptocurrencies

Money undergoes a change in concept or dimension with the ever-evolving technologies. In the past, the importance of money was the same as it is in our day. Money had value at that time, although it did not resemble the concept of today. This concept is constantly changing, and what people call money is in a constant state of flux. Maybe we can exclude the barter method from this topic because another product or service could be purchased by using the product or service there. Except for the times when the barter method was used, the concept of money emerged with precious metals such as gold and silver. Money has existed in various forms and sizes to this day and continues to do so. If we look at today, the most widely used currency took the form of banknotes. These banknotes were first stored in cards, called credit cards, and opened the way for shopping without a need to carry banknotes. From here, it moved to the internet environment to make

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people's lives easier. Banks have started to allow their customers or their own money to be used on the internet for real value.

After the concept of money started to shift to the internet environment, it brought different perspectives and different thoughts about this. However, cryptocurrencies have emerged that most people brought at the beginning of the most important changes. Cryptocurrency means internet-based cryptocurrency and has decentralization. Cryptocurrencies are units that are created with several encryption methods and transferred with this encryption method. After some cryptocurrencies were produced and encrypted, they could be obtained by people by digging in the internet environment and this is called mining. The total supply of these cryptocurrencies has not been reached yet. Cryptocurrencies whose total supply is come to an end can only be obtained by depositing money on cryptocurrency exchanges. According to the literature, it is said that the reason for the formation of this concept was to bring a solution to the financial crises that the countries are in. Satoshi Nakamoto, the creator of the first cryptocurrency, bitcoin, has launched bitcoin in 2008 to find a solution to the recovery of countries and the emergence of these economic conditions after the economic crises. In October 2009, the year after bitcoin was released, the exchange named New Liberty Standard published the first BTC/USD rate. At that time, 1 dollar was equivalent to exactly 1,309 BTC. One bitcoin is currently trading around 35,000 BTC/USD, and this price is constantly changing. Today, there are over 10000 cryptocurrencies in total, and their number is constantly increasing. Today, cryptocurrencies are followed and exchanged by people with huge interests. For example, in the last 24 hours, there is a total trading volume of $84,617,862,162 (06.06.2021) and the total market value of cryptocurrencies is $1.615,599,285,114 (06.06.2021). The most known and most common ten cryptocurrencies can be seen in Figure 1.

Figure-1- source: https://www.cryptowrecked.com(06.06.2021)

#	NAME	MARKET CAP	PRICE
1	Bitcoin (BTC)	$667,750,232,201	$35,661.95
2	Ethereum (ETH)	$311,025,547,772	$2,677.59
3	Tether (USDT)	$62,317,644,105	$1.00
4	Binance Coin (BNB)	$59,166,873,823	$385.99
5	Cardano (ADA)	$52,883,092,476	$1.66
6	Dogecoin (DOGE)	$47,722,378,068	$0.37
7	XRP (XRP)	$42,168,837,550	$0.93
8	Polkadot (DOT)	$23,760,024,827	$23.79
9	USD Coin (USDC)	$23,009,211,026	$1.00
10	Uniswap (UNI)	$14,438,153,864	$25.59

Fig. 1. Top 10 Cryptocurrencies

2.2. Classification of Cryptocurrencies

If we want to classify cryptocurrencies, we can divide them into two categories starting from digital assets, and classify cryptocurrencies into two sub-categories (Coin, Token). Coins are divided into three among themselves. Bitcoin is categorized on its own as it is the leader of the cryptocurrency revolution. Other coins other than bitcoin are classified under the altcoin title. There are also stable coins. USDT coin, the 3rd coin in table 1, is a stable coin. Stable coins are tied to a certain rate, and production depends on it. For example, the USDT coin is dollar-based, and the rate is fixed at $1. Its supply cannot exceed the dollar in real markets. Stable coins like this are fixed to the prices of certain things and allow people to trade in crypto markets with these coins.

There are also tokens in the markets. A token is a unit of value in an existing blockchain, and they do not have their blockchain. They are dependent on the blockchain of an existing cryptocurrency. Since tokens have a unit value, this value can be traded as value, coins, points, certificates, in-game items, etc. Tokens are the coins that are produced in a certain number, and this number represents the total supply, and there is no mining event. If we evaluate the security tokens in their subheading, these tokens are portable devices that electronically authenticate a person by storing personal information. If we evaluate the utility tokens, Utility tokens are tokens used to access a particular product or service. Utility tokens are not an investment vehicle. Hence holders of these tokens are not either named to the capital of any venture or they named to a share in the profits made. This makes tokens are useful to access products and services. Since the prices of products and services change according to supply and demand, the variability in their prices represents the equivalent of this service. Non-Fungible Token (NFT), in its shortest definition, is a unique digital asset. It represents many unique digital assets, from collector's items to virtual shoes, from virtual game content to digital properties.

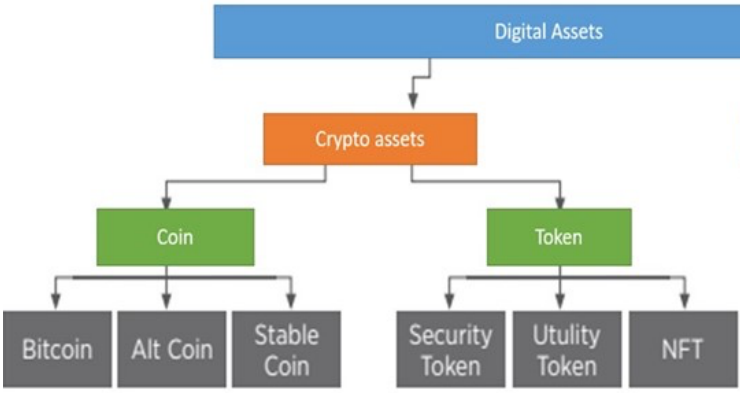

Fig. 2. Digital Assets for Crypto - Source: vergiyedair.com

2.3. SWOT Analysis

Cryptocurrencies have strengths and weaknesses compared to physical currencies. If we start from the strengths, we can count the main security system. Security in cryptocurrencies is high. Access to these wallets cannot occur outside of the owner, as they can be kept in encrypted wallets. Another strength is that the supply of these coins is not infinite. After the cryptocurrencies reach a certain supply level, more cannot be produced, which may mean that they can maintain their value. It has its good aspects as well as its bad aspects. To give an example, cryptocurrencies are not fully accepted so they can create speculation. In addition, since cryptocurrencies are not yet taxable, they are not fully recognized by the states. Governments are still considering how cryptocurrencies can be taxed. The SWOT analysis table, including these, is shown in Figure-3.

Strengths	**Weakness**
High-security encryption Inability to be guided on demand Amount cannot be changed	Problem with acceptance Lack of account security Non-taxable Use in money laundering
Oppurtunity	**Threats**
Confidential account feature Inability to increase supply	Follow up with a distributed system Lack of Central Management Failure to save accounts to name

Fig. 3. SWOT Analysis - Source: Cetinkaya,2018:20

3. Accounting of Cryptocurrencies

3.1. International Regulations and Actions

The use of cryptocurrencies has pushed most countries to take action. While some countries have banned the use of cryptocurrencies, others have made taxation studies in this regard. In the future, since the countries are still working on taxation and accounting, each country's approach to crypto money will become clear. There are still discussions about the existence of cryptocurrencies. Within the scope of accounting laws of most countries, cryptocurrencies can find their place in asset definitions. The taxation of cryptocurrencies is still controversial today. Cryptocurrencies still have not been taxed for various reasons, but some states charge a certain amount of tax on the profits they make here by calculating the money entering and leaving their citizens on cryptocurrency exchanges. Some taxation conditions according to the countries are as follows:

- USA: According to the IRS, cryptocurrencies are considered as assets, not money, and those who mine cryptocurrencies, are obliged to declare income and pay taxes on the income to be obtained from cryptocurrencies like businesses.
- Germany: If the income of citizens who buy and sell money from the stock exchanges within a year is over 600 euros, a 45 percent tax is applied.
- UK: If citizens are not actively trading, they pay ten percent of their earnings, and if actively trading, they pay 20 to 45 percent tax on earnings over £12500.
- Italy: Italy keeps the taxation of earnings from cryptocurrencies the same as for currency trading, which is 26 percent.
- Norway: In Norway, the state taxes its citizens at 25 percent of their earnings.
- South Korea: Cryptocurrencies are defined as assets in this country, and taxation studies are continuing. Taxation is expected in the buying and selling of cryptocurrencies in South Korea in 2022.

We can add other countries like these, but the taxation of cryptocurrencies is still not fully done. One of the main reasons for this is that it cannot be tracked. In addition, the fact that cryptocurrencies are built on a decentralized system and are not based on any contract are the main reasons for not being taxed. Countries want to be a pioneer in this regard, but most of them have not reached a specific result. No country in the world accepts crypto-assets yet. It is also not taxable because it is unacceptable.

While there are regulations and prohibitions based on countries, China announced that it will take important measures on crypto mining on May 21, 2021, and later imposed bans on crypto mining. After China, Iran announced on May 27 that it has banned cryptocurrency mining for 4 months. Crypto mining means trying to find the part of cryptocurrencies whose total supply has not yet been reached, which has not yet been decrypted. For example, the total supply of bitcoin is 21 million, and there are currently 18,731,125 bitcoins in the market. The remaining 2,268,875 bitcoins are still waiting to be encrypted, and they can only be encrypted by crypto mining. However, cryptocurrency mining consumes a lot of electricity and needs a cold environment as it overheats. This makes speculations about its mining. The newest speculation had occurred in May 2021. Tesla announced in March 2021 that they would sell cars with bitcoin, and then CEO of Tesla Elon Musk announced on Twitter on May 13, 2021, that bitcoin consumes too much electricity, so Tesla will not accept payments in bitcoin after that date. However, even there are some speculations, a groundbreaking event has just happened. The president of the country of El Salvador attended the bitcoin conference held in Miami, USA on June 04-05, 2021, and said that next week he will present the bill to congress on becoming the first country to recognize cryptocurrencies such as bitcoin. El Salvador became the first country in the world to accept bitcoin as its legal currency, with the adoption of the bill submitted by the country's president on June 9, 2021. With this development, bitcoin became the currency of a country for the first time. With bitcoin being the legal currency of El Salvador, it is expected to be used in all kinds of trade in this country. It is expected that large companies such as Amazon, Apple, Microsoft will receive payments in bitcoin for this country from now on, and with the continuation of this process, bitcoin payment type will emerge for all countries. This attitude of El Salvador revealed the importance of cryptocurrencies such as bitcoin is for the world in the future. Events like these will now accelerate the efforts of their states to work on cryptocurrencies based on solid foundations and to recognize cryptocurrencies and it is expected that serious steps will be taken in the coming period in the field of crypto money.

3.2. IASB and IFRS Decisions About Accounting of Cryptocurrencies

Since cryptocurrencies are still a new concept for the world, the opinions put forward on this subject are not likely to be correct or immutable rules. In this regard, institutions such as the IASB and IFRS have discussed the taxation of crypto-assets in groups with competent persons. First of all, to evaluate such assets within the scope of taxation it should be investigated whether there is an asset within the framework of regulations. In this context, when we examine the asset recognitions of IFRS and IASB, we can see that cryptocurrencies have a place in the scope of assets, even if they are not fully disclosed. In line with these scopes, the IASB commented on a result of the meetings it held in 2019. According to these comments, it has been stated that IAS 2 Inventory (stocks) standard and IAS 38 intangible assets standard can be applied in accounting. With these decisions, the IASB has decided that cryptocurrencies held for sale can be accounted for under IAS 2, while cryptocurrencies not held for sale can be accounted for as intangible assets since they are not cash assets.

3.3. Accounting in Turkey

As of June 2021, there is still no regulation on taxation and accounting for cryptocurrencies in Turkey. According to the statements made by the relevant ministries, Turkey will be subject to taxation in cryptocurrency trades as of 2022, or even earlier. To be able to account for cryptocurrencies in Turkey, first of all, it is necessary to determine which asset type cryptocurrencies are suitable for. When examined within the framework of the Turkish Accounting Standard and the Turkish Financial Reporting Standard, there are some options regarding the accounting of cryptocurrencies. If we list these options:

- Cash and Equivalents: Due to excessive fluctuations in its value and not having a central authority, it cannot be evaluated within this scope.
- Inventory: For an asset to be considered as inventory, this asset must be producible, in this context, accounting for trades can be evaluated under this option, since it is included in the IAS 2 decision.
- Financial Instrument: Since they are not bound by the contract and after passing from one hand to the other, they do not have any ties to the previous owner, they cannot be evaluated in this context.
- Fixed Asset Held for Sale: For an asset to be classified as a fixed asset, it must be defined as a physical asset, so it cannot be considered in this option either.
- Intangible Fixed Asset: For an asset to be considered an intangible asset, it must have no physical nature, the owner must have full control over the asset, and provide benefits to individuals, so it can be considered under this option.

To sum up these options, there is no law declared on the accounting of cryptocurrencies in Turkey, but in general, considering the recommendations of the IASB, cryptocurrencies can be considered within the scope of intangible assets and stocks in Turkey.

Studies on the taxation of cryptocurrencies in Turkey are expected to be completed by 2022. In Turkey, the government makes statements about this from time to time and they say that the studies are progressing rapidly. A regulation on the use of crypto-assets in payments was published on April 16, 2021, most recently in regulations regarding cryptocurrencies. In the regulation, a regulation was published on the institutions that act as intermediaries in trades in the provision of payment services, direct and indirect transfer of crypto assets. According to this regulation, such institutions will not be able to act as an intermediary in depositing and withdrawing funds from cryptocurrency exchanges. However, it was stated that payment service providers cannot develop business models in which crypto-assets are used directly or indirectly in the provision of payment services and issuing electronic money, and cannot provide any services related to such business models

4. Conclusion

Along with technological developments, the need for change in all areas of the world is also about money. Satoshi Nakamoto, who is determined to reflect the technological developments on the money issue, created bitcoin in 2008 and thought that this crypto-asset would fill the countries' economic and financial deficiencies. After the concept of crypto money emerged, the interest in this sector started to increase at a high speed. Today, over 10000 cryptocurrencies have been produced and their number is increasing day by day. Events like these have shown everyone that the currencies of the future are cryptocurrencies. The number of countries that accept the existence of crypto money is increasing day by day. Countries are trying to take steps within the scope of accounting for cryptocurrencies at full speed. In some countries, taxes are applied in the buying and selling of cryptocurrencies, while in others, taxation will come soon. Some countries are taking bigger steps and showing that crypto-assets will be the currency of our future. For these reasons, it is recommended that countries that do not work on the taxation of cryptocurrencies yet work on this issue to prevent negativities. If we look at the IASB recommendations, it can be evaluated within the scope of the intangible asset standard under IAS 38 and the inventory standard under IAS 2. In this context, when the definitions of assets in Turkish Financial Reporting Standards and Turkish Accounting Standards are taken into consideration, when the recommendations of both IASB and IFRS are considered, cryptocurrencies in Turkey can be defined as stock and intangible assets. To sum up, the accounting regulations that countries will bring to crypto-assets soon should be introduced by exchanging ideas with other countries, based on the opinions of organizations such as IASB and IFRS.

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