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THE PLACE OF CRYPTOCURRENCY AND BITCOIN IN THE ERA OF THE DIGITAL ECONOMY

Umirov Sherzod Baxriddinovich
Toshkent davlat Iqtisodiyot universiteti 2-bosqich talabasi
umirovsherzod32@gmail.com

Annotation
This article presents information about cryptocurrency centralization, volatility and investments, cryptocurrency transfer, cryptocurrency purchase, negative and positive aspects,Bitcoin and its structure.

Keywords: Cryptocurrency, Bitcoin, electronic money, BTC, cryptocurrency, reliability, Ethereum (ETH), Ripple (XRP), risk of loss.

In an era of rapid development of e-commerce in the context of digitization, the cryptocurrency industry is one of the fastest growing markets in the world. In an era of rapid development of cryptocurrencies, currencies not only offer an excellent investment opportunity, but they are also used to conduct online transactions, send money, and eliminate the need for central control in financial systems. Cryptocurrency is virtual money, which, unlike the money we actually use, does not have a physical representation. The unit of measurement for such a currency is "coin", which means "coin" in English. Digital currency is protected from counterfeiting and duplication, and its quantity and emission are strictly limited, for example, the maximum amount of Bitcoin (BTC), the largest cryptocurrency today, is set at 21 million coins (i.e., there will never be more than 21 million BTC). The main feature of cryptocurrencies is their decentralization - they are not controlled by any internal or external administrator. Therefore, banks, tax, judicial and government authorities cannot influence the transactions of crypto-asset users. All information related to cryptocurrency wallets and transactions is stored on the blockchain.

Cryptocurrency - is a form of digital or virtual currency that uses cryptography for security and operates independently of a central bank.

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Some important points about cryptocurrency:

1. Decentralization: Cryptocurrencies operate on decentralized networks using blockchain technology, which allows for secure and transparent transactions without the need for a central authority.
2. Examples of cryptocurrencies: Some of the well-known cryptocurrencies include Bitcoin (BTC), Ethereum (ETH), Ripple (XRP), Litecoin (LTC), etc. Each cryptocurrency operates on its own underlying technology and principles.
3. Mining and Transactions: Cryptocurrencies can be "mined" by validating transactions and adding them to the blockchain. Transactions are recorded on a public ledger and verified by network nodes.
4. Volatility and Investments: Cryptocurrency prices can be highly volatile, and investing in cryptocurrencies carries its own inherent risks. It is important to conduct thorough research and consider the potential risks before investing in cryptocurrencies.

Cryptocurrency transfers are irreversible, meaning no one can cancel, block, challenge, or force a transaction (without a private key). However, transaction participants can voluntarily temporarily lock their cryptocurrencies together as collateral, or determine that the transaction requires the consent of all (or arbitrarily additional) parties to complete/cancel. Such capabilities are available in smart contracts and are implemented only on certain types of blockchain platforms.

Buying cryptocurrency. The most convenient and easiest way to buy digital currency in soums or dollars is to buy it on a cryptocurrency exchange. Cryptocurrency rates on crypto exchanges are much more profitable than on cryptocurrency exchangers and wallets. The Binance crypto exchange, which is considered the most reliable platform with the largest turnover, has been recognized as the largest crypto exchange in the world for 5 consecutive years in recent years, the platform also supports money transfers from Visa/MasterCard bank cards and QIWI, Advcash, Payeer payment systems.

There are three main characteristics of cryptocurrency:

- Cryptocurrencies are not based on trust. Cryptocurrency governance systems do not require trust, they do not involve third parties. They replace

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trust with verification. In a P2P network, assets are fully controlled by each participant and are transferred directly between them without the consent and supervision of a governing body (such as a bank).

- Cryptocurrencies are immutable. By their very nature, blockchain technology makes cryptocurrency transactions immutable. They cannot be reversed, delayed, repeated, hidden, or altered. Such a system is not subject to conventional fraud and is immune to human error, making cryptocurrency more transparent than traditional bank electronic money.
- Cryptocurrencies are decentralized. For cryptocurrencies, new coins are created systematically and transparently by the system. Take Bitcoin, for example: its infrastructure guarantees that only 21 million coins will ever exist. To get a better idea, compare this to the constant issuance and devaluation of fiat currencies such as the dollar and the euro by governments and central banks.

To understand the essence of cryptocurrency, it is necessary to highlight its advantages and disadvantages.

Positive aspects of cryptocurrency:

- Open source. Thanks to this feature, anyone can mine virtual coins. Despite the complexity of the process, many people still make a living this way.
- Anonymity. Unlike classic electronic money, whose transactions can be easily traced, it is impossible to obtain information about the owner of a cryptocurrency wallet. There is only limited information on the wallet number and the amount in the account.
- Decentralization. Cryptocurrency is an independent currency. No one regulates its issue and no one controls the movement of funds on the account. It is this feature that attracts many members of the network.
- Limited. As a rule, cryptocurrency is issued in a limited volume, which eliminates the risk of inflation due to excessive activity of the issuer.
- Reliability. Virtual currency cannot be hacked, counterfeited, or otherwise manipulated – it is reliably protected.

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Disadvantages of cryptocurrency:

- Lack of security. Each user is personally responsible for their own funds. There are no regulatory mechanisms here, so in the event of theft, it will be impossible to prove anything and get the money back.
- Volatility. Cryptocurrency is unpredictable because it is driven by current demand, which in turn can change based on changes in legislation, current opinions, and other factors. This is why there are fluctuations in the price of virtual currencies.
- The risk of bans or restrictions. Governments are wary of cryptocurrencies. Many countries have imposed restrictions on their use, and violators can be fined or even imprisoned. At the same time, a number of European countries are still debating how to reach a compromise on the use of such money.
- Risk of loss. The "key" to access electronic money is a special password. If its owner loses it, he will not be able to access the cryptocoins in the wallet.
- As the complexity of block formation increases, virtual currency mining also loses its relevance. The costs of purchasing equipment and paying for electricity simply do not justify themselves. That is why in recent years there has been a demand for cloud mining services - specialized companies that have the necessary capacity at their disposal.

Bitcoin - is the invention of Satoshi Nakamoto, but it is still unclear which person or group of people is behind this pseudonym. Nakamoto presented the concept of a decentralized payment system on October 31, 2008. Its main principles were anonymity for all participants, protection against fraud, and independence from controlling organizations.

The Bitcoin network consists of interconnected blocks of transactions. Each subsequent block contains information about the previous one, so you can build them into a single chain and get information about all previously performed transactions (but not about the owners of bitcoins).

The process of creating new blocks is called mining. In order for the next block to appear on the network, you must first create a cryptographic signature for that block. As a reward, you receive new bitcoins. By the way, their emission is not an infinite process. It is known in advance that no more

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than 21 million bitcoins can be created in total. Initially, creating blocks was relatively easy, and even a single miner could do it. Over time, the complexity increased, mining began to require a lot of computing power, so miners began to join pools and jointly create new bitcoins.

Bitcoin cryptocurrency is a payment system currency based not on trust, but on a cryptographic coding system, which ensures that payments are made directly between participants without any intermediaries (banks or other financial instruments). In this case, each participant can issue these coins, without any regulatory authorities, using a system in which the authenticity of coins is confirmed based on complex mathematical algorithms.

Unique features of Bitcoin:

- decentralized system – in which each participant has equal rights and opportunities;
- complete transparency of settlements - each participant can see all transactions;
- lack of control – no state or organization can control operations within the system;
- Confidentiality – the system does not request confirmation of information about participants;
- The emission of coins is limited - a total of 21,000,000 BTC (bitcoin coins) will be issued;
- the balance sheet is not based on double-entry bookkeeping, but all transactions are visible to all participants in chronological order;
- is not subject to inflation, its value changes depending on supply and demand;
- There is no legal basis.

In conclusion, today the world's leading exchanges and large banks are also forced to introduce bitcoin trading systems. Although the rapid development of cryptocurrencies can have a significant impact on the entire global financial and economic system, leading to the destruction of the existing system, investors who want to make a lot of money are interested in the development of bitcoin. Also, the people who benefit the most from the rapid development of bitcoin coins are investors operating in the underground economy.

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