

CRYPTO: PROGRAM OR CURRENCY?

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Annotation. The term “crypto” has been theoretically researched. It is also determined, that crypto is unstable currency, based on encryption processes. A simplified explanation of the term has been presented.

Keywords: cryptocurrency, mining, encryption, blockchain.

Introduction. Nowadays there are a lot of questions about cryptocurrency. It became popular in 2020, but most internet users still don't fully understand what it is and how it works. According to the statistics there are more than 300 million of registered exchanges. It's only 3.9% of human popularity, and it's obvious, that one person can have some accounts and the number of real users is about 200 million.

Some internet projects have already been paid with the help of cryptocurrency. If they want to have new employees, they should simplify the processes connected with crypto. So, some users don't realize what they do and only follow the instructions. And the number of involved individuals decreases from 200 million to nearly 150.

The aim of this work is to explain how crypto works, what it's based on and to examine different details and risks of a new type of currency.

Main part. Crypto – is a form of digital currency, therefore it will be logically correct to know about its economic part. It is a form of currency, but it's based on encryption algorithms. Because of them, cryptocurrency, or, how it sometimes called, «coins», is harder to steal than paper money. There is a big difference in crypto compared to non-digital assets. If the currency of one country falls, another country can make profit of it and their banknotes will become more expensive. In crypto world there are no such examples: if one currency falls, the other won't change or will fall too. To understand this fact, we should get acquainted with some representatives of digitals.

The first and the most recognizable cryptocurrency is Bitcoin. It started in 2009 and now everyone knows its name. This coin is the main character on the crypto market. All other cryptocurrencies are called «Altcoins». They have a different level of popularity. There is no altcoin, that is sold at lower prices. The price of every coin depends on its sales. In real currencies every government can print more banknotes and give them to their people. This action will have certain consequences, but it is possible. In crypto world, 1000 coins can't be created in a minute, their number is limited. So, when someone buys a number of coins, there are fewer of them on the market and they can be sold at higher price [1].

Every altcoin also depends on bitcoin status. Also, the world situation should be taken into consideration. Big conflicts or technological breakthrough can change the selling rate of different coins. It can be said, that there are no cryptocurrencies that can win in price on someone's fall and not only the market should be analyzed, but also the news of real world should be considered.

Now we should learn something about crypto wallets and dive into crypto programming. Firstly, the exchanges are under consideration. There are a plenty of different platforms, where coins can be bought. In this case some technologies provide people with safety. First of all, «p2p trading». This technology connects two concerned people: the one who buys and the other who sells. If a person wants to sell some coins, he creates a contract. After that, someone sees this contract and accepts it. On the next move both send their cryptocurrencies to a place between them. The place is a temporary created code, that stores the coins in the process of exchange. If the other side doesn't press the button to send its assets, this code will send the coins back. And only when

both sides accept the deal, it will happen. It's almost impossible to deceive this algorithm, that ensures safety for users.

Moreover, so-called «trust factor» is under consideration. There are a lot of advertising, and in terms of cryptocurrency the advertising becomes trustworthy. Every platform has its own rate that is called «trust factor» Users can assess the platform and by this way form its factor. Also, every trader on the platform has its own rating, and it's easy to choose someone, who makes a lot of deals everyday and doesn't deceive other people. This system exists in different spheres, but in crypto world it is much better, than anywhere else.

Besides, the techniques of crypto should be explained. Blockchain is the main structure of cryptocurrency and its safety is certainly one of the most crucial benefits. How does it work? This process is hidden in the word «blockchain». This structure can be imagined as a chain of different blocks. Each block is an operation, that takes place in the chain. Coins exchange? A new block is created. Cash out accumulation? Another block appears. And imagine the size of the chain, where, for example, 10,000 people make their transactions every minute. Taking control of this chain means taking control of each operation. Furthermore, if there is a computer, that stores the whole chain somewhere, it can be hacked. But this problem is also solved due to this technology [2].

No doubt, cryptocurrency is associated with miners. Miners are the ones who create new blocks, at least partially. They use their computers to solve «puzzles» in the form of encryptions. It starts when someone presses the button or «accepts an operation». When it is pressed, the platform or the market creates a new block in the chain. But it is encrypted and can't be used by anyone. Therefore, much attention is given to mining computers. These computers are used to decipher encrypted words, solve puzzles. The one, who solves it first, receives a coin or its part. At this moment, the block has been saved at this mining computer and the operation has been ended. And what about safety? Since there are no miners, who can solve all puzzles at the same time, each new block is saved on a new computer. By this algorithm, the chain becomes a web, that spreads all over the world.

However, mining has its disadvantages. Encryptions should be quite challenging to ensure safety for transactions. And it always becomes harder and harder to decipher them. Simple programs can't decode them and, for this reason, miners have to find or create new software. By the way, the computers should have great components to deal with a large number of tasks at the same time.

Finally, different operations, which are on the market, become a big chain of blocks. These blocks are distributed across thousands of computers and become a web, that a person can't see. So, there is no person in the whole world who can trace two operations of the same user, even if the delay between them is only one second. That's why blockchain is one of the safest financial systems. And everyone can be confident, that the account won't be hacked, and the information of any operation will be private, because there's no history of transactions. Mining computers only solve puzzles and don't know for whom they do it.

Conclusion. Cryptocurrency depends on the power of different computers and their abilities to solve ciphers. These computers belong to different people, and they ensure the safety of crypto market, but can't control it. However, as a counterweight to this stability, there are a lot of downside risks with the course of each coin. So, you can be confident, that no one will steal your money, but you may lose it if you don't sell coins at the right moment. By all these facts, it's obvious, that making money as a trader of crypto coins is very risky, and you should enter this field only if you are financially literate. Considering all of these, crypto is certainly more a program than a currency nowadays.

References

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