

Гребенников Александр Юрьевич

студент

Научный руководитель

Савина Светлана Владимировна

канд. физ.-мат. наук, доцент

ФГОБУ ВО «Финансовый университет

при Правительстве Российской Федерации»

г. Москва

THE USAGE OF BLOCKCHAIN IN BUSINESS

Аннотация: сегодня как никогда актуальна тема блокчейна. Любой проект «на блокчейне» вызывает повышенный интерес, любой газетный заголовок, упоминающий об этой технологии, привлекает внимание. Однако многие люди не в полной мере понимают, что такое блокчейн, как он работает и где может использоваться. В статье мы бы хотели рассмотреть, как технология блокчейн может применяться в бизнесе, и показать, почему она действительно может изменить будущее к лучшему.

Ключевые слова: блокчейн, криптовалюта, технологии в бизнесе, финансовый рынок.

Abstract: today, the topic of blockchain is at the peak of fashion. Any project causes increased interest if it is «on the blockchain», any newspaper article attracts additional attention if it mentions this technology. But many people do not fully understand what this technology is, how it works and where it can be used. In this article, we want to speculate about how blockchain can be used in business and show why this technology can really change our future for the better.

Keywords: blockchain, cryptocurrency, technologies for business, financial market.

Nowadays technologies changing the different spheres of business, ways of production and services sector. Banks today functioning in not familiar way we used to

think like just 10 or even 5 years ago. Artificial intelligence is widely spread in production, completing more difficult tasks in shorter period of time than a human. Companies using the big data and cloud technologies to provide clients with faster feedbacks and presenting more exact advertisements. Advertising has changed, medical sphere has changed, computers and devices has changed, all has changed.

There is an opinion that technological level growth will be not so lightning fast in the near future like in couple of past decades. We had almost reached our limit and there is nothing to discover and create, except couple of spheres. But how is that possible that 2 billion of people on earth, according to the world bank statistics, living for a not more than 2 dollars a day. Can you imagine that in the modern world? This people just can be a part of the world economy, they can't take loans, mortgages, they can't make deposits in the banks, we are not talking about investments. The technology Blockchain can solve this problem with 2 billion people, also it can solve loads of other problems and improve a lot of different processes in different spheres.

Consider, what is blockchain and how this technology works, a lot of people familiar with it, other can easily find the information, let's just give a short and easy to understand description, blockchain is a distributed database (registry) technology based on a constantly extended chain of records and resistant to falsification, revision, hacking and theft of information. Security of this system provided by cryptography. Here I'm going to analyze the ways how to use blockchain in business.

The first stop is so known «smart-contracts». «Smart-contracts» is computerized operational protocol which fulfills the terms of the contract automatically if the sides of a contract complied with all conditions. This technology has to main advantages for the business and business operations – first of all, this technology eliminates the need for trust between the parties due to the automatic execution of the transaction based on the blockchain code which in turn eliminates the risks associated with the human factor. Second of all, if any partner not complied any of the conditions, this contract will not be completed. Instead of keeping track of their assets in various databases, which financial companies are now forced to do, they can do only one information repository.

Transactions are made almost instantly and without any intermediaries. As a result, transactions require less capital and dramatically reduce risks.

Here is the table that highlight the advantages of smart-contracts.

Table 1

Advantages of smart-contracts

Area of comparison	Traditional contracts	Smart-contracts
Completion of the transaction	1–3 days	Minutes
Money transfer	Manual	Automatic
Escrow agent	Necessary	May not be needed
Cost	Expensive	Cheaper
Presence	Physical	Virtual
Signature	By hand	Electronic
Lawyer	Necessary	May not be needed

Now let's move to one more very important feature of blockchain that every business on some stages will use. This is IPO. But in case of blockchain it is more correct to say ICO. ICO (initial coin offering, or crowdsale) in practice means the same as IPO—initial placement of securities on the open market. In both cases, the main goal is to raise money for the development of the project by selling assets. However, the organization of the initial placement process itself varies. For entering the IPO, the company must confirm its reliability with accounting data for several years. Its reliability must be confirmed by the conclusion of a reputable audit company. All this guarantees the potential investor that his investments are checked and protected. Unlike IPO, for ICO with the use of blockchain, neither intermediaries nor control of the regulator are needed: a decentralized system stores all records of the actions of all bidders in the form of a publicly accessible, open and therefore reliable register. Any company, having decided to raise funds for its development or implementation of the project, can use an open blockchain platform. This technology is convenient and profitable for the founders of startups, at the same time it is trusted by venture investors: one of the brightest examples is the Etherium project.

Public blockchain projects that have attracted funding through the issuance of cryptographic tokens:

Ethereum – a platform for creating computing and creating decentralized programs.

Storj и Sia – decentralized data storage.

Incent – platform for loyalty programs.

Mass Network – online advertising management platform.

Ionomi – investments fund.

In fact, there are a lot of examples. Startup-crowdfunding is also very interesting alternative and effective way to raising funds. Founders complain about illiquidity of investments in startups. Investors typically have to part with at least 10,000 euros and often wait five or more years to exit the project with a profit. Now there was an alternative solution. The business analysis platform for investors Funderbeam offers a unique way out of this situation. It is a blockchain-based investment marketplace for buying and selling shares in startup syndicates for colored coins. Soon, the Funderbeam platform will allow investors to create investment syndicates for one or more startups online. Investments can be made in any configuration, the size of the syndicate is not limited. A share of £ 100,000 may be held by one lead investor and 99 co-investors who have invested £ 1,000; a lead investor of £ 75,000 and five co-investors who have invested £ 5,000; or any other combination. Like crowdfunding, this lowers the threshold for investing in startups.

Blockchain has an important property for accounting work. Information created in the blockchain can be trusted, even if there is no trust in the counterparty. A transaction is only executed if it is approved by both parties. Subsequently, this information is protected from changes. International accounting corporations, in particular the «Big four» companies are already seriously exploring the possibility of using blockchain in accounting and auditing. They can be understood-audit activities in the near future, many predict a serious crisis. Who needs an intermediary who expresses an opinion on the reliability of accounting when accounting is a priori reliable? However, most experts agree that it is unlikely that the profession is threatened with extinction – rather, the emphasis in the work of auditors will shift from confirming events to confirming their classifications in accounting. The work of the accountants themselves will go into

the plane of accounting policy formation, correct classification and interpretation of events, as well as the use of professional judgments. Business representatives may be interested in possible areas of application of blockchain in accounting, which will reduce the cost of its maintenance and increase the value of accounting information:

1. Settlements with external counterparties. With the introduction of blockchain, the need for reconciliation of calculations is eliminated. The formation and write-off of receivables and payables of the parties to the transaction will occur simultaneously in the same assessment at the time of the transaction. You do not have to confirm the transaction and its evaluation. The accountant will only have to correctly classify the acquired / transferred asset and the corresponding income / expense.

2. Movement of assets within the enterprise. If you present any fact of economic life within the enterprise as a transaction, then in real time you can get information about the movements of any assets.

3. Real-time operational accounting. Thanks to the blockchain, there will be no need to wait for the processing of the primary document by the accountant. The primary, in principle, will not be needed either in paper or electronic form. Instead, it is the fixation of the transaction in the blockchain.

And this is only the tip of the iceberg – the topic of blockchain is just beginning to be studied by the accounting community.

Large financial institutions are likely biding their time, not refusing to eventually experiment with blockchain operations. And, of course, the level of interest from the technology sector is high. Viewers have already been presented with such bold experiments as Openbazar. Today, it seems appropriate to codify legal agreements using patented and publicly available methods. For direct, simpler processes, the technology already exists. In the distant future, there will be a fully automated Internet of things, managed by authorized Internet agents, smart contracts and smart transactions.

References

1. What is smart contracts control [Electronic resource]. – URL: <https://coinspot.io/?s=smart%20contracts>

2. Building the trust engine. How the blockchain could transform finance (and the world) // A UBS Group Technology White Paper. – 2016. – 48 p.
3. Blockchain. Enigma, Paradox, Opportunity // London: Deloitte LLP, 2016. – 27 p.
4. Swan M. Blockchain: A Blueprint for the new economy. – Moscow: Olymp-Business, 2017. – 149 p.
5. Don Tapscott. Blockchain technology is what drives the financial revolution today. – 2017. – 448 p.