

Prospects for the Development of Blockchain Technologies in the Banking Sector of Uzbekistan

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Abstract: *This paper explores the possibilities of using blockchain technologies in the activities of commercial banks, accounting and control of blockchain-based assets. Based on the study, the priorities of using the blockchain in the activities of commercial banks in Uzbekistan have been identified and substantiated. Scientific proposals and recommendations have been developed to improve the implementation of blockchain in the activities of commercial banks.*

Key words: *commercial bank, blockchain, technology, digital bank*

Introduction

To date, the current level of economic development of Uzbekistan can no longer be imagined without the participation of the digital economy, which is why the digital economy is part of the country's development strategy, and its goal is to form a full-fledged digital space.

Currently, the most relevant topic in the economy and business is blockchain. Blockchain is a fairly young technology with little history, and the scope of blockchain technology is not only limited to the financial sector. Based on this technology, social networks, online voting systems, various applications for supply chain control, etc. are created.

However, despite the promise, this technology has opponents. The main reason for this is the lack of understanding of blockchain technology. Therefore, at present, there is a need to develop a legislative framework and safety standards for the use of technology.

Literature review

J. Bradley firmly says that the introduction of blockchain technology can provide significant energy savings if it replaces some of the energy-consuming systems, services and locations that support the specified currency [1]. It seems that blockchain technology has the potential to optimize global financial infrastructure by dealing with global issues such as sustainability or asset transfer much more efficiently than existing financial systems.

According to J. McLean, the use of blockchain in combination with real banking systems will increase the power acting between counterparties [2]. We could potentially have a common, ubiquitous blockchain that could reduce the need for intermediaries to verify financial transactions and the friction that arises in financial networks due to different intermediaries who often use different technological infrastructures. Theoretically, this interconnected infrastructure has the potential to generate significant efficiency gains, reduce duplicate accounting, eliminate reconciliations, minimize errors, and speed up settlements.

M. Swan described a large American bank, Bank of America, filed a patent document, which was published by the US Patent and Trademark Office [3]. The document talks about the implementation of a permissioned block chain to protect records, as well as authenticate business and personal data.

R. Ayupov believes that blockchain is a database that simultaneously stores information on many computers connected to the Internet [4]. In our opinion, this description does not cover the blockchain

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in detail. He also notes that the advantage of blockchain is its transparency, efficiency, simplicity and value.”

According to S.S. Gulyamov, blockchain is a methodology for creating distributed data sets, and recording any such information is a history of ownership, which greatly limits the possibility of falsification [5]. Blockchain is used to perform transactions in virtual currency systems and to keep their history.

J. Zaynalov and Z.Ahrorov declares, taking into account the reduction of the human factor, expenditures from the state budget will be reduced, corruption and bribery will be sharply reduced, tax accounting and control will be fully automated, and taxes will be fully transferred to the state budget [6].

Main part

Due to the fact that the widespread introduction and support of the digital economy is an important part of the country's future development plan, a wide range of measures has been identified to develop the digital sector of the economy. The regulatory and legal framework in this area is being improved, electronic infrastructure and commerce are being formed, and the transition to digital transformation is gradually taking place in all sectors of the economy.

In order to further develop forms of contactless communication between the population and business with government agencies, in recent years a new version of the Unified Interactive Portal of Public Services has been launched - the Virtual Reception of the Prime Minister of the business.gov.uz portal of entrepreneurs.

The Fund for Supporting the Development of the Digital Economy "Digital Trust" was established by the Decree of the President of the Republic of Uzbekistan No. PP-3927 dated September 2, 2018 to implement the most promising and strategically important projects for the development of the digital economy, as well as measures to develop and implement blockchain technologies.

The main objectives of this Fund are:

attracting and consolidating investor funds for the implementation on the terms of public-private partnership of projects in the field of development of the digital economy, including those related to the introduction of blockchain technologies;

implementation of the most promising and strategically important projects for the development of the digital economy on the terms of public-private partnership, including in the field of circulation of crypto-assets and the activities of crypto-exchanges, as well as training and other training activities in the field of development and implementation of "blockchain" technologies »;

support for initiatives (startups), especially youth ones, for the further development of the digital economy, including through the introduction of blockchain technologies and the creation of platforms for the circulation of crypto-assets;

providing technical assistance in organizing cooperation with leading foreign and international organizations in the field of circulation of crypto-assets and blockchain technologies, including in attracting highly qualified foreign specialists.

In order to digitalize technological and business processes, production, logistics and trade in finished products, "IT parks" with modern infrastructure have been created in the country. Free activities of companies in the field of crypto assets and blockchain technologies have been established.

To train personnel in our country who own modern programming technologies, the Million Programmers project was developed and the educational portal uzbekcoders.uz was launched to organize trainings within the framework of the project.

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2020 has been declared in our country as the Year of Science, Education and Development of the Digital Economy, and work in this direction has reached a new level - the President's decree approved the Digital Uzbekistan Strategy until 2030 and the Roadmap for its implementation.

Improving the telecommunications and electronic infrastructure is of particular importance in the development of the digital economy. Of course, the higher the level of Internet access, the more effective the digital economy, including e-government. The number of Internet users in the country in 2018 was 46% of the total population, and in 2021 this figure will exceed 60%.

In relation to reality, we see that in countries with a developed digital economy, both the volume of GDP and the share of GDP per capita are high. From this point of view, the only goal in our country is to pay attention to this issue, which is to improve the living conditions of the population, increase real incomes, and develop entrepreneurship and the economy of our country.

It should be noted that the attitude of the Central Bank of the Republic of Uzbekistan towards blockchain-based cryptocurrencies remains negative.

According to the Central Bank of the Republic of Uzbekistan, the widespread use of cryptocurrencies in anonymous transactions has led to widespread money laundering and fraud, which has contributed to the further expansion of the shadow economy in some countries. In addition, due to the limited ability to regulate and control cryptocurrencies on international and interstate exchanges and the high risk of using cryptocurrencies as a convenient tool for financing terrorism and other criminal activities by criminal individuals and groups, their circulation is limited in many countries.

In particular, the decentralized virtual issuance and circulation of cryptocurrencies on the Internet as a result of their official recognition as a means of payment limits the ability of central banks to control money circulation and pursue a free monetary policy.

Also, given that money cannot perform all of its functions, cryptocurrencies are likely to plummet due to the fact that they are not a traditional currency, have no real reserves, and are a rapidly changing derivative instrument. It should be noted that this can lead to financial losses for citizens.

Meanwhile, the legislation of the Republic of Uzbekistan does not provide for payments or other transactions using cryptocurrencies.

In our opinion, banks have two different reasons for developing blockchain-based payment solutions: 1) potential cost savings and 2) the threat of new entrants to the payment markets. However, these factors need to be approached from a variety of bases. It should be noted that the costs faced by banks in processing payments are related to five areas: manual processing, third-party fees in the add-on chain, losses from fraud and anti-fraud, KYC and AML costs, cross-border settlement difficulties between banks, and legacy systems and processes, often with overlapping and redundant functions, data and processes.

To achieve cost savings, banks should of course focus on building blockchain solutions for this kind of process. What is controversial is that many of the newcomers to agile technologies are creating platforms that people can easily use to make payments in their daily lives. Think about how Uber works. In fact, it does not offer cheaper taxi services than traditional taxi companies (even though more sophisticated ride-sharing solutions are being developed for it, which can also lead to lower costs for customers).

Conclusion

We came to the conclusion that the blockchain is very useful and applicable in various areas where the solution requires security, transparency and efficiency. Basically, we have identified the following current applications of blockchain: monetary transactions, decentralized privacy and data protection (smart contracts and secure identity), and decentralized autonomous organizations. Blockchain is a technology that allows information to be stored without relying on a trusted third party.

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Based on the above analysis and data, we consider the following areas to improve the implementation of blockchain technology in the banking sector:

1. Availability of digital transformation strategies. Commercial banks need a digital transformation strategy, in particular a clear roadmap for the implementation of blockchain technology in certain sectors and services.

2. Improving the efficiency of the payment system. By creating a decentralized channel (for example, cryptographic) for payments, banking institutions can use new technologies to speed up payments and reduce processing fees. By offering greater security and lower costs for sending payments, banks can introduce a new level of service, bring new products to market, and finally be able to compete with innovative fintech startups.

Moreover, by adopting blockchain, banks will be able to reduce the need for third-party verification and speed up the processing time of traditional bank transfers.

3. Improvement of clearing and settlement systems.

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