

Секція 7. Глобальні тенденції сучасного банківського бізнесу

Sections 7. Global trends of modern banking business

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BLOCKCHAIN TECHNOLOGY AND THE FUTURE OF BANKING

For nearly ten years, blockchain has experienced a booming success. It is on everybody's lips, in particular in the banking and finance world where it finds its source. A lot of articles, studies, speeches and debates are themed around the 'Blockchain revolution'.

The Blockchain is an encrypted, distributed database that records data, or in other words it is a digital ledger of any transactions, contracts - that needs to be independently recorded. One of the key features of Blockchain is that this digital ledger is accessible across several hundreds and thousands of computer and is not bound to be kept in a single place.

With Blockchain technology in financial sector, the participants can interact directly and can make transactions across the internet without the interference of a third party. With all the fraud resistant features, the blockchain technology holds the potential to revolutionize various business sectors and make processes smarter, secure, transparent, and more efficient compared to the traditional business processes.

Let's see some important features of the whole system: 1. Blockchain will keep score of all type of data exchanges. This is called a ledger system, and the data exchanges are called 'transactions.' After verification, every transaction gets to add up to the ledger as a block. 2. It uses a different kind of distributed network to ensure that every transaction is on the point between P2P nodes. 3. After a block gets added and verified, no one can alter its information.

Blockchain ensures security in this network by using the concept of 'Key.' If you use a set of encrypted keys, you'll get a unique identification that no one can break. You'll get a private and public key, using this combination you'll get a unique identity. Others will use your public key to find you on the network. With the help of your private key, you'll be able to sign any action or authorize transactions associated with your public key.

Broadly, there are three levels of blockchain utilization: storage of digital records, exchange of digital assets, recordation and execution of smart contracts.

Blockchain's ecosystem, like its technology, is rapidly evolving and we are witnessing the development of new platforms, applications, consortia, and partnerships. Many companies are collaborating with blockchain start-ups and some of the large players are even developing their own solutions and filing patents. In addition, most companies are opting to be a part of a consortium, which typically includes industry players, regulators, and governments. These groups typically support the development of decentralized business platforms and applications.

Well, there are different kinds of blockchain technology you can use. Blockchain systems are classified as public, private and consortium.

Public blockchain. Everyone has the full right to download the code and run any public node on their own device. Anyone can even check their current status and also decide to add any blocks to the chain.

One of the leading blockchain networks is Bitcoin. Ethereum, Dash, Dogecoin, Litecoin, Monero are also different public blockchain networks. All these blockchain networks have the access for anyone to join them as participants, use their codes and also send any transaction or even read them.

Private Blockchain. It is also called a permissioned blockchain since unknown users cannot get access to it, unless they receive a special invitation.

Usually, people don't have access to the blockchain network such as auditing and database managing. Individual companies can get the access with proper permission and process. They will be able to access in transaction verification internally.

Private Blockchain technology is opposite to the public one in some cases. It's a centralized system. With the private blockchains the security break risk increases. Multichain, MONAX are two private blockchain networks.

Consortium Blockchain (Federated Blockchains). A consortium blockchain can be considered as a partially private and permissioned blockchain, where not a single organization but a set of pre-determined nodes are responsible for consensus and block validation.

Everyone doesn't have the right to read this blockchain. A group of leaders operates the Federated Blockchains. Generally, the banking sectors use the Federated blockchains. It is a partially centralized system, owing to the control by some selected validator nodes, unlike the private blockchain which is completely centralized, and the public blockchain which is completely decentralized. B3i (Insurance), R3 (Banks), Corda, EWF (Energy); these are some of the Federated or Consortium blockchains.

Unlike the bitcoin blockchain and other public networks, permissioned blockchain networks are typically developed by companies for their own private commercial use. Organizations may develop their own network or customize a basic network previously developed by a vendor. In some cases, a group of companies in an industry may collaborate to develop and share a

proprietary network to facilitate transactions among them, such as the R3 blockchain consortium, which offers a blockchain system for financial institutions.

Blockchain will disrupt most aspects of banking. Some of the transformations or use cases that you should expect to see include:

Payment. Banks and financial institutions can implement Blockchain technology, in general, to reduce costs and increase speed when making bank-to-bank and international transfers. Blockchain technology is very likely to replace the SWIFT bank transfer system in the near future. The blockchain can speed up and simplify this process, cutting out the unnecessary middlemen.

Client identification system. With the use of blockchain, users will be identified on a single occasion, and the information will be stored in a secure location where all banks in the system can access it.

Loans and credits. There is a straightforward relationship between banking and financial services and insuring deposits and loans. The banking system has however been proven to be highly unreliable and vulnerable even in the most developed countries. State regulators use traditional currency to insure private bank deposits. A distributed system for loans and deposits that is based on ledger technology is not only decentralized but also immune to bankruptcy since one specific organization does not control the deposits.

Insurance can also be enhanced significantly by automating payment on insurance cases. Implementation of smart contracts that are performed automatically will eradicate the long bureaucratic delays that involve a large number of managers making it possible for people to receive payments instantly.

So, Blockchain technology could have an enormous impact on the procedures for conducting and confirming transactions, optimizing assets, managing cash and a variety of other businesses processes which account for billions of pounds in expenses for banks every year.

The technology will increase efficiency, speed, security, and lower costs in a majority of bank's operations. This will result in a significant improvement in the quality of their services to their end- users.

Through the use of blockchain technology, banks will be able to have near real-time settlements of transactions, reduce risk and provide enhanced customer service.

We have witnessed how R3 and its consortium members have successfully developed a proof-of-concept application for KYC in order to address challenges associated with regulatory requirements while allowing the user to manage their own identities.

VISA on the other hand has developed a B2B Payment Solution – VISA B2B Connect on a Blockchain platform for the facilitation of payment transactions. The challenges and opportunities are immense and time will tell if

the opportunity cost outweighs the opportunity lost in not adopting blockchain technologies in our banking system.

Conclusions. The global business world is yet to explore the intricacies of the Blockchain concept to its fullest. However, we believe that with explorations happening in this space, the business world will soon realize the massive potential of this technology and it will drive a new wave of decentralized applications.

However, history is not stopped by current obstacles, as the technical, regulatory, and other problems of blockchain technology will ultimately be resolved. Hence, the prospect of integrating blockchain technology into the banking industry will most likely occur in the near future.

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INDICATORS FOR MEASURING ACCESS TO BANKING IN POLAND IN THE CONTEXT OF THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT

The 2030 Agenda for Sustainable Development is a comprehensive development plan for the world with a perspective up to 2030 established by the United Nations (UN) in 2015. All UN member countries have committed themselves to taking actions to implement 17 Sustainable Development Goals (SDGs), which focus on ensuring a dignified life for all inhabitants of the world, peace and economic progress, at the same time protecting the environment and combating climate change. The European Commission, in 2016 joining the 2030 Agenda initiative, announced the statement Next steps for a sustainable European future, in which it was declared that the SDGs would be included in EU policies and regularly reported. To monitor them, it was decided to adopt a set of 100 monitoring indicators based on the resources of the European Statistical System.

Research results and analysis of various reports prepared by finance specialists allow to conclude that the development of the banking sector, both in Poland and in other EU countries, depends on the pace of economic growth and the situation on the labor market.

The 8th goal of SDGs – Decent jobs and economic growth includes task 8.10 – Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all. In this article, the results of indicators for measuring this task in Poland are presented.