

BLOCKCHAIN INNOVATIVE TECHNOLOGY AS A COMMUNICATION BASIS FOR THE DIGITAL ECONOMY FORMATION

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The paper shows the analysis results of distributed ledger technologies (*blockchain*) application in various spheres of the economy, finance, and social and economic life showed that *blockchain* technology is of undeniable interest. It is shown that *blockchain* technology has drawn undisputed interest and attention. In 2016, several financial companies, banks, enterprises, and exchanges announced the formation of special projects for the study and development of such technology. The paper shows that *blockchain* technology is one of the most discussed in the digital economy development, and the attention for *blockchain* technology has sustainable increase trends. Particularly, to study the possibilities of *blockchain* technology, many large financial companies have formed entire teams. It is shown that there are now no standards and legal relations for such technology; therefore, some serious market participants united in consortia to form standards for such technology practical implementation and application. There have been invested over two billion dollars in the past three years to study such technology and its application possibilities in financial services.

The paper discloses the aspects outlining the *blockchain* as a multifunctional information system designed to count various assets. There were presented analysis of the technology's significant advantages and disadvantages, which still exist today and demand a separate study.

The paper reveals the prospects for this technology in various sectors of the economy, finance, and others beyond economic areas. Based on the study, the promising areas of technology development in Ukraine and worldwide were identified.

It is noted that the digital economy and *blockchain* technology, in particular, is a way that can transform many areas of human life. Of course, the blockchain mass introduction and the transition to a digital economy would mean a real scientific and technological revolution for any country. It may be mean market free of speculators, business without intermediaries, state apparatus without bureaucrats, continuous trust, openness, and transparency. However, it is necessary to consider expediency, assess risks, watch safety, and train personnel in each case.

The conducted research also helps eliminate the identified knowledge gap between the potential areas of the *blockchain* technology application and the necessary configuration of enterprise resources. It is also shown that it allows increasing enterprise efficiency by *blockchain* technology and other enterprise resources.

References

1. Nakamoto, S. Bitcoin: A Peer-to-Peer Electronic Cash System. Available at: <https://bitcoin.org/bitcoin.pdf>
2. Bjørnstad, M.V., Harketstad, J.G. and Krogh, S.A. (2016). What are the Blockchain Applications? Use Cases and Industries Utilizing Blockchain Technology. Project Thesis - Blockchain Technology, NTNU. Available at: <http://www.blockchaintechnologies.com/blockchain-applications>
3. Allen, D.W. (2017). Discovering and developing the blockchain cryptoeconomy. *SSRN Electronic Journal*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2815255

4. Alvarez, S.A. and Busenitz, L.W. (2001). The entrepreneurship of resource-based theory. *Journal of management*, 27(6), pp. 755-775.

5. Davidson, S., De Filippi, P. and Potts, J. (2016). Economics of blockchain. *SSRN Electronic Journal*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2744751

6. Dierickx, I. and Cool, K. (1989). Asset stock accumulation and the sustainability of competitive advantage: reply. *Management Science*, 35(12).

7. Blockstack (2017). A New Internet for Decentralized Apps. Available at: <https://blockstack.org/>

8. Bryman, A. (2008). Of methods and methodology. *Qualitative Research in Organizations and Management: An International Journal*, 3(2), pp. 159-168.

9. Mougayar, W. (2016). *The Business Blockchain: Promise, Practice, and Application of the Next Internet Technology*. Hoboken, John Wiley & Sons, 208 p.

10. Zhu, H. and Zhou, Z.Z. (2017). Analysis and outlook of applications of blockchain technology to equity crowdfunding in China. *Financial Innovation*, 2(1), p. 29.

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