DOI: https://doi.org/10.18371/fp.1(41).2021.294346

JEL Classification G21, F24

# CURRENT PROBLEMS OF BANKING TECHNOLOGY DEVELOPMENT IN THE REPUBLIC OF KAZAKHSTAN

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**Abstract:** The article describes the essence and provides a classification of banking technologies, substantiates the role of information technology. The author studies the current trends in the development of the banking services market of the Republic of Kazakhstan, based on the use of modern technologies and substantiates the promising areas of its further development.

**Keywords:** banking technology, banking innovation, payment system and digitalization.

A study of modern trends in the development of the banking services market, which is based on using of modern technologies, showed that banking technologies in almost everything facilitate the working process of a financial company, make it faster and more reliable, establish uniform forms of reporting and data provision, help to make efficient workflow and cooperation of bank's professional specialists.

The author investigates the essence of the concept of banking technology, presents its types, describes a number of certain principles of banking technologies that act as the basis for supporting and developing banking business: the availability of technologies, scale, opportunity, principle, convenience, construction, access, development and improvement.

The article analyzes the main indicators of the level of use of modern

technologies by banks in the Republic of Kazakhstan. Among the investigated technologies were considered such as: mobile interfaces, Open API, cloud biometrics, technologies, Big Data, blockchain, AI / ML, robotization. The performance indicators of the national payment systems operating in the territory of the Republic of Kazakhstan are presented: the Interbank Money Transfer System and the Interbank Clearing System. The main trends in development of the banking technology market were analyzed by researching such indicators: the number of POS terminals, ATMs, trade enterprises and users of online banking services, the characteristics of transfers

(in the context of money transfer systems), the average size of a non-cash payment made from a card via the Internet and mobile and average check of payment through a POS terminal.

Based on the results of analysis, it was found that the introduction of innovations in all spheres of activity of economic entities, the transition of the economy to an innovative path of development, have become one of the priorities of state policy affecting economic growth, development and structural shifts in the economy, as well as the most important a tool supporting the competitiveness of the national economy, including the banking sector.

## References

- 1. Shamin, E. A., Generalos, I.G., Zavivaev, N.S. & Cheremukhin, A.D. (2015) Suschnost informatizatsii, ee tseli, sub'ektyi i ob'ektyi [The essence of informatization, its goals, subjects and objects]. Vestnik NGIEI NGIEI Bulletin, 11, 99–107 [in Russian].
- 2. Tavasiev, A. M., Mehryakov, V. D. & Eriashvili, N. D. (2017). *Bankovskoe delo. Upravlenie i tehnologii [Banking. Management and technology]*. Moskva: Yuniti-Dana [in Russian].
- 3. Gorelaya, N. V. & Karminskiy, A. M. (2013) *Osnovyi bankovskogo dela* [Banking Basics]. Moskva: ID «FORUM» INFRA-M [in Russian].
- 4. Makarov, A. D. (2014) Upravlenie innovatsiyami i innovatsionnyimi tehnologiyami v bankovskom menedzhmente [Management of innovations and innovative technologies in banking management]. *Uchenyie zapiski Sankt-peterburgskogo universiteta upravleniya i ekonomiki Scientific notes of the St. Petersburg University of Management and Economics*, 4, 38–46 [in Russian].
- 5. Ohlopkov, A. V. (2011) *Innovatsii v sfere predostavleniya bankovskih uslug* [Banking innovation]. Doctor's thesis. Moskva [in Russian].
- 6. Нұр-Сұлтан (2020) Conception, that was dedicated 2020-2025 to the years, development financial technologies innovations [In Kazakhstan].

- 7. State system for ensuring uniformity of measurements. Metrological support of banking technologies. General Provisions. Requirements. GOST P 8.561-95. Retrieved from: https://docs.cntd.ru/document/1200026048 [In Kazakhstan].
- 8. Pinina, K.A. (2018) Sovremennyie informatsionnyie bankovskie tehnologii [Modern information banking technologies]. *Tendentsii i perspektivyi razvitiya bankovskoy sistemyi v sovremennyih ekonomicheskih usloviyah: materialyi Mezhdunarodnoy nauchno-prakticheskoy konferentsii Proceedings of the international scientific and practical conference: Trends and prospects for the development of the banking system in modern economic conditions, (pp. 174–176).* Kazan [in Russian].
- 9. Samsonova, E. A., Astahov, V. Yu. & Adzhieva, A. Yu. (2018) Informatsionnyie tehnologii kak instrument sovershenstvovaniya bankovskogo sektora [Information technology as a tool for improving the banking sector]. *Alleya nauki Alley of Science*, 4, 932–934 [in Russian].
- 10. Ermakova, L. V., Gudkova, O. V. & Dvoretskaya, Yu. A. (2018) Innovatsionnyie tehnologii na ryinke bankovskih uslug [Innovative technologies in the banking market]. *Byulleten nauki i praktiki Science and Practice Bulletin*, 5, 424–429 [in Russian].
- 11. Komarova, L. V. (2015) Primenenie informatsionnyih tehnologiy v bankovskoy sfere [The use of information technology in the banking sector]. *Ekonomika i upravlenie: problemyi, resheniya Economics and Management: Problems, Solutions*, 3, 101–103 [in Russian].
- 12. Zhirnova, A. M. & Zinoveva, N. M. (2015) Innovatsionnyiy faktor kak osnova razvitiya predprinimatelstva [Innovation factor as the basis for the development of entrepreneurship]. Innovatsionnyie podhodyi k resheniyu sotsialnoekonomicheskih, pravovyih i pedagogicheskih problem v usloviyah razvitiya sovremennogo obschestva: materialy Mizhnarodnoyi naukovo-praktychnoyi konferentsiyi Proceedings of the scientific and practical conferences: Innovative approaches to solving socio-economic, legal and pedagogical problems in the context of the development of modern society. Staryiy Oskol [in Russian].
- 13. Zinoveva, N. M. (2016) Osnovyi formirovaniya investitsionnoy politiki kommercheskogo Banka [Fundamentals of the formation of the investment policy of a commercial bank]. *Novaya nauka: sovremennoe sostoyanie i puti razvitiya New science: current state and development paths*, Part 1 [in Russian].
- 14. Natsionalnyiy Bank Kazahstana [National Bank of Kazakhstan]. Retrieved from: https://www.nationalbank. kz/ru?switch=kazakh\_[in Russian].

- 15. Forbes: Kaspi Bank URL: https://forbes.kz//ranking/object/8 [in Russian].
- 16. Mezhbankovskaya sistema perevodov deneg (statistika za fevral 2021 goda) [Interbank money transfer system (statistics for February 2021)]. Retrieved from: https://finreg.kz/?docid=672&switch=russian [in Russian].
- 17. Novosti Kazahstana [Kazakhstan news] Retrieved from: https://www.nur.kz/[in Russian].
- 18. Zorin, G. E. (2020) Iskusstvennyiy intellekt i ego primenenie v bankovskoy sfere [Artificial intelligence and its application in banking]. *Vestnik Rossiyskogo universiteta kooperatsii Bulletin of the Russian University of Cooperation*, 1(39), 31–36 [in Russian].
- 19. Vasilenko, O. A. (2018) Osnovnyie tendentsii razvitiya novyih bankovskih produktov i uslug v Rossii na sovremennom etape [Main trends in the development of new banking products and services in Russia at the present stage]. *Vestnik nauki i obrazovaniya -Science and Education Bulletin*, 10(46), 33 [in Russian]