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Research Article

**ARTIFICIAL INTELLIGENCE AS A FACTOR TO IMPROVE  
BANK EFFICIENCY**Olga Zinisha<sup>1</sup>, Igor Ivanenko<sup>1</sup>, Rosa Avdeeva<sup>2</sup><sup>1</sup>Kuban State Agrarian University named after I.T. Trubilina, Krasnodar, Russia, <sup>2</sup>Kuban state technological University, Krasnodar, Russia.**Article Received:** January 2019**Accepted:** February 2019**Published:** March 2019**Abstract:**

*In the article, authors analyzed the impact of the use of artificial intelligence (AI) in the banking sector, and described the positive and negative ways of its impact on the banking structure. In recent years, the banking sector has shown great interest in the development and use of artificial intelligence technologies, which will automate most of the processes and also increase the level of customer service. The presence of artificial intelligence in the bank allows you to reduce staff and improve the economic situation of the banking sector as a whole. The results of the study showed that artificial intelligence will not be able to completely replace a person, however, it will allow automating similar banking processes, which in the first place will affect the quality of customer service and the efficiency of the bank.*

**Key words:** *artificial intelligence, banking sector, operations, information technology, bank client, financial resources.*

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**INTRODUCTION:**

For the first time, artificial intelligence was talked about forty years ago; today, artificial intelligence technologies have managed to step far ahead, and its use has become an objective necessity in various spheres of human life. The banking sector, which, using artificial intelligence, seeks to provide the highest quality and speed of service to its customers, increase the speed of a number of banking operations, as well as provide electronic access to banking services, was no exception. Artificial intelligence is an area of computer science that develops intelligent computer systems, that is, systems that have capabilities that we traditionally associate with the human mind [2].

The use of artificial intelligence (AI) in the banking sector carries with it a number of advantages, since it allows minimizing the influence of the human factor when performing banking operations, significantly reduces costs, and also increases the efficiency of the bank. A modern client needs personalized conditions for deposits, loans and other offers, the implementation of an individual approach to each client is possible through the use of artificial intelligence, which first collects data about the client and then offers him the optimal solution to the problem. Experts and analysts say that artificial intelligence is a powerful lever for developing and increasing the efficiency of banking activities, because the ability of machines to interact and learn to perform tasks that people have previously performed, saves time, human and financial resources [5].

At present, banks use artificial intelligence to solve a number of tasks for promptly obtaining reports, performing back-office routine work, assessing the borrower's creditworthiness, preventing questionable operations, fraud and money laundering, as well as personalizing banking products offered to customers [3]. The introduction of information technology is one of the important components of an advanced bank, for which the key factors for successful interaction with customers are speed, flexibility, and security.

**MATERIALS AND METHODS:**

The currently existing artificial intelligence programs allow banks to process a significant amount of data at an unprecedented rate, as far as a person is concerned, then it would take a much longer amount of time to do the same amount of work. The introduction of artificial intelligence allows customers to be segmented, which allows not only to quickly process the available information, but also to

include in their portraits additional factors that allow forming effective personal sentences, especially since the capabilities of artificial intelligence allow it to be done in real time, for example, at when a customer has brought his card to an ATM [5].

Gradually, the use of funds is gaining popularity, and with the help of robot consultants they analyze investment processes, the information is processed, and then the client is given a report on what is currently the most profitable investment. These funds are developed by companies with the well-known name of Personal Capital, Acorns, and very soon every commercial bank will use them to monitor and control their financial and economic spheres.

**RESULTS OF OWN RESEARCH:**

Thanks to IT technologies, a program was created to analyze the effectiveness of the organization and its employees on various indicators, which increased the speed of preparing reports and, moreover, their accuracy, due to the exception of manual data processing. Now in the arsenal of managers of banking organizations is a powerful tool to monitor all employees.

Artificial intelligence in the banking sector is also used as a hint for the operator in the intellectual contact center of the bank. This center handles customer requests from different sources, be it phone calls, bank chat, social networks, or SMS, and all requests are displayed in a single window of the automated workplace of the bank operator [4].

Such a contact center turns into an effective tool consisting of automatic customer dialing, voice self-service (IVR), voice identification, voice analytics, and other functions that help increase customer loyalty, because they receive an answer to their request much faster.

According to statistics for 2017, thanks to the participation of artificial intelligence in the work of the contact center, the efficiency of the bank increases in such indicators as the speed of the operators increased by 11%, the quality of interactive speech interaction increased by 87%, and the number of processed calls increased by 5.5 % per day [5].

Artificial intelligence is used by some banks in order to improve the collection of overdue debts, for example, Sberbank PJSC in 2015 launched the artificial intelligence system Iron Lady, which is capable of dialing clients of debtors on its own.

Some analysts from consulting companies claim that robots are 50-87% cheaper than using full-time and freelance employees, and that banks will invest more

and more in artificial intelligence in an attempt to increase their efficiency while maintaining high quality customer service [4].

Artificial intelligence allows you to solve many problems, chief among which is the client service, because it becomes possible to adapt various banking tools to the needs of different users, thereby significantly increasing the level of service [5].

In addition, banks use AI systems in organizing various operations, in the field of risk management, especially those related to insiders, in investing funds in securities. The use of artificial intelligence allows banks to minimize the role of the human factor, automate many processes, resulting in cost reduction, solve a number of standard, typical tasks. Reducing the number of bank employees and replacing human resources with computer ones, minimizing the costs of maintaining offices and branches of the bank, while an incredibly high level of customer support and service, is what all banks strive for in the future.

#### CONCLUSIONS:

Thus, artificial intelligence is being introduced in the banking sector all over the world, because banks are striving to fully automate routine processes that take a significant amount of time. Software that uses the capabilities of AI, helps bank clients to offer various affiliate programs for investing cash, and also shows the results of high speed and bank performance both in individual industries and in general. That is why the technology of artificial intelligence every year will increasingly penetrate into the banking sector.

#### REFERENCES:

1. Vikulov VS. Typology of banking innovations. Financial management. 2014; 6:16-18.
2. Zvarykina EB. Introduction of banking innovative technologies. Finance and credit. 2015; 38:62-65.
3. Kazan EA. Innovations in the banking sector. Young scientist. 2016; 15:297-301.
4. Kolesnichenko NA. The use of artificial intelligence in the banking sector. Modern technologies, current issues, achievements and innovations. Collection of articles of the II International Scientific and Practical Conference held on December 23, 2017. in the city of Penza. Part 2. Penza, ISTC "Science and Education", 2017.
5. Ramzayeva EP. Artificial Intelligence as a Modern Innovative Technology in the Russian Banking System. International scientific journal "Innovative Development". 2017. 12(17).