

## ROLE OF ARTIFICIAL INTELLIGENCE IN THE ROMANIAN BANKING SYSTEM

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**Abstract:** Nowadays, technology has become an integrant part of our lives, constantly enriching and transforming different sectors of the economy. The Romanian banking system is no exception, and the use of artificial intelligence (AI) has become a necessity to maintain its competitiveness, streamline its operations and provide a quality experience to its customers. This article aims to explore the importance of implementing AI in the Romanian banking system and how it can contribute to increasing the added value for customers and banks.

**Keywords:** technology, artificial intelligence, banking system, customers, Romania.

### Introduction

Artificial intelligence (AI) technology represents a special opportunity for the Romanian banking system, offering the opportunity to improve efficiency, security and customer experience. However, the implementation of AI also involves risks, such as data protection and job losses. This paper aims to examine both the benefits and potential risks of applying AI technology in the Romanian banking sector.

Artificial Intelligence (AI) has had a significant impact on most sectors of the economy, and the banking system is no exception. In the year 2030, it is expected that the use of AI in the Romanian banking sector will be widespread and fully integrated in most banking processes and services. This evolution will bring a number of benefits, but also some challenges that must be considered to ensure a successful implementation of AI technology in the banking system.

AI (Artificial Intelligence) technology has had a significant impact on many fields and industries, including security systems such as bank firewalls. They are an essential measure to protect the information and personal data of customers and financial institutions. In this article, I will explore the strengths of banking firewalls that benefit from the integration of AI technology, thereby providing more effective protection against cyber threats.

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The use of artificial intelligence (AI) in blocking the accounts of Russian individuals and companies in the context of war is a key measure to counter the impact of this conflict on the economy and national security. In this article, I will explore the benefits, but also the risks, of using AI in such situations, highlighting how this technology can help protect and secure financial resources and sensitive data.

#### **Detection and prevention of computer attacks**

One of the key features of banking firewalls using AI is the ability to detect and prevent cyber attacks faster and more accurately. Artificial Intelligence can learn traffic patterns and normal user behaviors and identify anomalies that may indicate possible attacks. By analyzing real-time data, AI firewalls can immediately block unauthorized access attempts and initiate additional security measures to prevent attacks.

One of the main advantages of using AI in blocking Russian accounts is its ability to detect suspicious activity quickly and accurately. Artificial intelligence can analyze user patterns and behavior and identify anomalies that could indicate unauthorized or fraudulent activity. By monitoring data in real time, AI can immediately block unauthorized access and initiate additional measures to prevent attacks.

#### **Adaptability and protection against new threats**

Another strength of AI banking firewalls is their ability to adapt and protect against new and sophisticated threats. AI technology can constantly learn and identify new attack patterns, even when they have not been encountered before. This way, AI firewalls can stay up-to-date and provide continuous protection against changing threats, which is essential in an ever-evolving cyber environment.

Another advantage of using AI in blocking Russian accounts is the ability to adapt and protect against new and sophisticated threats. AI technology can continuously learn and identify new attack patterns, even when they have not been encountered before. This way, AI can stay up-to-date and provide continuous protection against ever-evolving threats, which is crucial in a war environment.

#### **Reducing human error and improving efficiency**

Integrating AI technology into banking firewalls can help reduce human error and improve the overall effectiveness of security systems.

Although humans may be prone to human error, AI can perform repetitive and complex tasks without tiring or making mistakes. AI firewalls can quickly assess and analyze a large volume of data in real time, enabling effective threat identification and the implementation of appropriate security measures.

#### **Streamlining administrative processes**

The integration of AI in the Romanian banking system can help to streamline administrative processes, reducing costs and time consumption. For example, AI algorithms can be used to automate repetitive and routine tasks such as verifying documents and their authenticity, opening bank accounts or credit evaluation. By eliminating the need for human involvement in these processes, human error can be reduced and the speed and accuracy of their implementation can be improved.

#### **Personalization of banking services**

Another importance of using AI in the Romanian banking system is the ability to personalize the services offered to customers. Artificial intelligence systems can collect, analyze and understand customer data, making it easier to provide personalized recommendations and solutions for each individual customer. For example, a client can receive personalized financial advice, investments suited to the profile or optimal solutions for refinancing loans. This personalization of services can increase customer satisfaction and loyalty to the bank.

#### **Opportunities in the efficiency of banking operations**

The implementation of AI technology in Romanian banking systems can lead to a significant increase in the efficiency of operations. Automating repetitive processes such as document verification or account management can reduce human error and improve execution speed. AI technology can also be used to analyze customer data and provide personalized solutions regarding account management, financial planning or investments.

#### **Fraud prevention**

In recent years, bank fraud has become increasingly prevalent and sophisticated, putting both customers and banks at risk. The use of AI in the Romanian banking system can play a crucial role in fraud detection and prevention. Machine learning algorithms can be trained to identify patterns

and anomalies in transactions, alerting banks to possible fraud. Facial recognition technology can also be used to verify the authenticity of customers, thereby protecting them from imposters or impersonators.

Technological innovations brought by AI in the Romanian banking system can significantly improve security and fraud prevention. Fraud detection systems based on AI technology can detect patterns and anomalies in transactions, thereby alerting the bank to potential fraudulent activities. The use of facial recognition technology can also help protect customers against identity theft or criminals trying to access bank accounts.

### **Improving the customer experience**

Finally, the implementation of AI in the Romanian banking system can significantly contribute to improving the customer experience. Chatbots, virtual assistants and smart mobile banking apps can provide instant and accessible answers to common questions, facilitate making payments or transfers and provide fast and personalized financial advice. This improved level of service can increase customer satisfaction and lead to positive referrals, which is critical to banks' long-term success.

AI technology can also bring significant benefits in terms of personalizing banking services for customers. AI algorithms can collect, analyze and understand customer data, thus enabling the provision of personalized recommendations and solutions for each individual. Through smart mobile apps, virtual assistants or chatbots, customers can benefit from instant responses, fast payments and transfers, and personalized financial advice.

### **Risks associated with AI technology**

The implementation of AI in the Romanian banking system is not without risks. These include the risk of job losses as certain processes are automated. There is also the risk of data privacy as AI requires access to customers' personal information. To minimize these risks, compliance with data protection legislation and investment in cyber security is required.

### **Benefits**

1. Increased operational efficiency: By 2030, AI will be widely used in automating banking processes and improving operational efficiency. Processes such as verifying documents, managing accounts and providing personalized recommendations will be done faster and without errors.

2. Security and fraud prevention: AI technology will play a critical role in protecting banks and their customers against fraud. AI-based fraud detection systems will be able to identify patterns and anomalies in transactions, and facial recognition technology will ensure the authentication and secure access of customers to their accounts.

3. Personalized customer experience: AI will enable banks to provide personalized services for each customer. The AI algorithm will analyze customer data and provide personalized solutions and recommendations for account management, financial planning and investments. Thus, each client will benefit from advice and suggestions tailored to their financial needs and goals.

### **Challenges**

1. Ethics and Transparency: With the increasing use of AI in the banking system, there will need to be an increased focus on ethics and transparency. This involves developing and enforcing clear standards and regulations on the use and management of customer data, as well as transparently communicating how AI is used and decisions made.

2. Data Security: With the increasing interconnectivity and volume of data circulating in the banking system, data protection becomes even more important. Banks will need to invest in effective security measures to prevent unauthorized access to customer data and ensure that AI is used in a safe and responsible manner.

3. Adaptability of the workforce: As automation and the use of AI in the banking system increases, the risk of job losses may arise. In this sense, a workforce adaptability strategy is needed to ensure the transition to new roles and skills adapted to technological requirements.

### **Conclusions**

In short, the introduction of artificial intelligence in the Romanian banking system is imperative to maintain a competitive level and offer a superior experience to customers. Streamlining administrative processes, personalizing banking services, preventing fraud and improving customer experience are just some of the areas where implementing AI can bring significant benefits. Therefore, Romanian banks must actively adopt this technology to strengthen their market position and continue to offer quality financial solutions in the digital age.

The implementation of AI technology in the Romanian banking system represents a significant opportunity to improve the efficiency of banking operations, security and customer experience. However, it is important to carefully manage the risks associated with AI implementation, such as data protection and job loss. By identifying and properly managing these risks, the Romanian banking system can take advantage of the advantages offered by AI technology and offer innovative and secure services to its customers.

The use of AI in the Romanian banking system by 2030 will bring a number of notable benefits, improving operational efficiency, security and customer experience. However, it is essential to responsibly address the challenges associated with the use of AI, such as ethics and transparency, data security and workforce adaptability. A well-thought-out strategy and adequate investments in technology and professional training will ensure that AI is used effectively and responsibly in the Romanian banking system.

Integrating AI technology into banking firewalls is an important step towards improving cyber security for financial institutions. The ability to detect and prevent cyber attacks, adaptability and protection against new threats, as well as reducing human error and improving efficiency, are just some of the strengths of AI firewalls. However, it is important to maintain a balanced approach between the use of AI technology and human involvement in the security process to ensure effective and safe protection of data and financial information.

The use of AI in blocking the accounts of Russian individuals and companies in the context of war is a significant step in improving national and financial security. Detecting suspicious activity, adaptability and protection against new threats, as well as reducing human error and improving efficiency are just some of the benefits of using AI in account locking. However, it is important to maintain a balance between the use of AI technology and human involvement in the security process to ensure effective and safe protection of financial resources and sensitive data.



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