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APPLICATION OF ARTIFICIAL INTELLIGENCE TECHNOLOGIES IN THE FIELD OF TAXATION

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ABSTRACT

This article analyzes the application of artificial intelligence technologies in the field of taxation in the Republic of Uzbekistan. The main concepts of artificial intelligence, its role and capabilities in the taxation system are examined. Particular attention is paid to the automation of tax processes, data analysis, the development of chatbots for taxpayers, and the improvement of tax monitoring. In addition, the legal status of artificial intelligence, its place in the taxation system, and the experience of developed countries are discussed. The results of the study demonstrate the prospects for introducing innovative technologies into the tax system of Uzbekistan.

Keywords: artificial intelligence, taxation, tax control, automation, digital transformation, blockchain, tax monitoring, chatbots, legal regulation.

Today, artificial intelligence technologies are developing rapidly. At the same time, there are almost no regulatory legal and technical documents in the world governing the development, deployment, operation, integration, and application of these technologies. The issue of ensuring the legal regulation of the use and development of artificial intelligence is becoming increasingly relevant not only in developed countries but also in Uzbekistan.

In recent years, the use of artificial intelligence in Uzbekistan has been developing at a rapid pace. In particular, automation processes are being observed in the fields of medicine, industry, accounting, and consulting services. Within the framework of the “Electronic Government” system, various measures are being implemented to digitize public services. In the tax sector, the Unified Tax Portal, the “Tax-Service” platform, and online tax accounting systems are actively used.

Concept of artificial intelligence. Artificial intelligence, robots, and robotics are interrelated concepts. A robot is an automated device designed to perform various mechanical operations according to a predetermined program. Robotics is the field of science and technology concerned with the design, construction, operation, and control of robots through computer systems.

Artificial intelligence is a technology that studies methods of teaching computers, robots, or analytical systems to think rationally like humans. Intelligent systems equipped with artificial intelligence are hardware and software complexes capable of solving creative tasks within a specific subject area.

Artificial intelligence and taxation. In the field of taxation, artificial intelligence is used as a tool for processing large volumes of data with accuracy, efficiency, and speed. The State Tax Committee of the Republic of Uzbekistan is implementing innovative projects aimed at automated processing and monitoring of tax information.

Artificial Intelligence-Based Risk Assessment in Tax Administration. One of the most promising areas of artificial intelligence application in taxation is risk assessment and tax fraud detection. Modern

AI algorithms can analyze large datasets and identify suspicious transactions, inconsistencies in tax declarations, and potential tax evasion schemes. Machine learning models are capable of recognizing hidden patterns in taxpayers' behavior and generating risk profiles for further inspection.

The implementation of AI-based risk assessment systems allows tax authorities to reduce administrative costs, increase transparency, and improve the efficiency of tax audits. In many developed countries, including the United States, the United Kingdom, and Singapore, artificial intelligence technologies are actively used to identify high-risk taxpayers and optimize tax administration processes.

Blockchain and Artificial Intelligence in Tax Systems. The integration of blockchain technology with artificial intelligence can significantly improve the reliability and security of tax administration. Blockchain ensures transparency and immutability of financial transactions, while AI enables automated analysis of transaction data and detection of anomalies.

Such integration can reduce opportunities for tax fraud, improve taxpayer trust, and provide real-time monitoring of tax obligations. For Uzbekistan, the implementation of blockchain-based tax reporting systems supported by AI technologies could become an important step toward the digital transformation of public administration.

Challenges and Future Prospects. Despite the numerous advantages of artificial intelligence, several challenges remain. These include data privacy concerns, cybersecurity risks, algorithm transparency, and the absence of comprehensive legal regulations governing AI systems. In addition, the effectiveness of AI technologies depends on the quality and completeness of available data.

Future development of AI in taxation requires the creation of a strong legal framework, investment in digital infrastructure, and the training of highly qualified specialists. The successful implementation of artificial intelligence technologies will contribute to increasing tax compliance, reducing administrative burdens, and improving the overall efficiency of the tax system in Uzbekistan.

Conclusion. Artificial intelligence is being actively introduced into the state tax system of the Republic of Uzbekistan. It contributes to simplifying tax processes, improving tax control, and supporting taxpayers through intelligent chatbot systems.

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