

**POSSIBILITIES OF ORGANIZING TAX CONTROL BASED ON ARTIFICIAL INTELLIGENCE****Turayev Alijon Akmal ugli**

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**Annotation.** This study explores the possibilities of implementing artificial intelligence in tax control to improve the efficiency of tax administration. It examines how AI can assist in analyzing financial data, detecting tax risks, and optimizing audit processes. The research is based on Uzbekistan's Tax Code (2026), related regulations, and international studies on digital taxation. The findings indicate that using AI technologies can enhance tax compliance, reduce errors, and increase transparency in tax administration.

**Keywords:** artificial intelligence, tax control, digital taxation, tax compliance, Uzbekistan.

**Annotatsiya.** Ushbu tadqiqot soliq nazoratida sun'iy intellekt texnologiyalarini qo'llash imkoniyatlarini o'rganadi va soliq ma'murchiligining samaradorligini oshirishga qaratilgan. Tadqiqot sun'iy intellekt moliyaviy ma'lumotlarni tahlil qilish, soliq xatarlarini aniqlash va tekshiruv jarayonlarini optimallashtirishda qanday yordam berishini ko'rib chiqadi. Tadqiqot 2026-yilgi O'zbekiston Soliq kodeksi, tegishli normativ hujjatlar va xalqaro raqamli soliq tadqiqotlariga tayangan. Natijalar shuni ko'rsatadiki, sun'iy intellekt texnologiyalarini qo'llash soliq intizomini oshirish, xatoliklarni kamaytirish va soliq ma'murchiligida shaffoflikni ta'minlash imkonini beradi.

**Kalit so'zlar:** sun'iy intellekt, soliq nazorati, raqamli soliq, soliq intizomi, O'zbekiston.

**Аннотация.** В данном исследовании рассматриваются возможности применения искусственного интеллекта в налоговом контроле для повышения эффективности налогового администрирования. Особое внимание уделено тому, как ИИ может помочь в анализе финансовых данных, выявлении налоговых рисков и оптимизации процедур проверки. Исследование основано на Налоговом кодексе Узбекистана (2026), соответствующих нормативных актах и международных исследованиях цифрового налогообложения. Результаты показывают, что использование технологий ИИ способствует повышению налоговой дисциплины, снижению ошибок и улучшению прозрачности налогового администрирования.

**Ключевые слова:** искусственный интеллект, налоговый контроль, цифровое налогообложение, налоговая дисциплина, Узбекистан.

**INTRODUCTION**

The digital transformation of the global economy has significantly influenced the structure and functioning of national tax systems. Economic activities increasingly occur in digital environments, including online trade, electronic financial transactions, and digital service platforms. These developments have created new challenges for tax authorities, particularly in the areas of tax monitoring, compliance control, and identification of tax risks. Traditional tax control mechanisms were designed for relatively stable economic structures and often rely on manual audits, periodic reporting, and retrospective analysis of financial documents. However, the modern economy generates enormous amounts of real-time financial data that cannot be effectively analyzed using traditional methods alone. As a result, tax authorities around the world are increasingly adopting advanced digital technologies to enhance the effectiveness of tax administration.

Artificial intelligence has become one of the most promising technological innovations in this field. AI systems are capable of processing vast amounts of structured and unstructured data, identifying hidden patterns, predicting risks, and supporting decision-making processes in complex administrative systems. In tax administration, artificial intelligence can be applied to detect tax evasion schemes, monitor financial transactions, analyze taxpayer behavior, and automate various administrative procedures. In recent years, the Republic of Uzbekistan has implemented large-scale reforms aimed at modernizing the national tax system. These reforms have focused on simplifying tax procedures, reducing administrative burdens on businesses, increasing transparency, and digitalizing tax administration processes. The introduction of electronic tax reporting, digital tax platforms, online cash registers, and electronic invoices has significantly expanded the amount of data available to tax authorities.

According to the provisions of the Tax Code of the Republic of Uzbekistan and related regulatory documents, tax authorities are authorized to use modern information technologies to improve tax control and ensure effective tax administration. The growing digital infrastructure within the tax system creates favorable conditions for the implementation of artificial intelligence technologies. At the same time, the development of AI-based tax control systems requires careful consideration of legal, technological, and institutional factors. Issues such as data protection, algorithm transparency, taxpayer rights, and the reliability of automated decision-making processes must be addressed to ensure that AI technologies contribute to fair and effective tax administration.

The relevance of this research is determined by the increasing importance of digital technologies in tax administration and the need to study the possibilities of integrating artificial intelligence into tax control systems. The main objective of this study is to analyze the potential of artificial intelligence technologies in organizing tax control and to evaluate their impact on the efficiency and effectiveness of tax administration in Uzbekistan.

#### **LITERATURE REVIEW**

The application of artificial intelligence in public administration has attracted increasing attention from researchers in recent years. Many studies emphasize that AI technologies significantly improve the efficiency of government institutions by automating complex analytical processes and supporting data-driven decision-making. According to Bird and Zolt, modern tax systems require innovative technological tools to address the challenges of globalization and digitalization. They argue that digital technologies allow tax authorities to improve tax compliance and strengthen fiscal capacity by enabling more effective monitoring of economic activities.

OECD research on digital transformation in tax administration highlights that artificial intelligence plays an increasingly important role in risk analysis and fraud detection. AI-based systems are capable of analyzing vast datasets obtained from tax returns, financial transactions, and third-party reporting systems. These technologies enable tax authorities to identify suspicious patterns and prioritize high-risk taxpayers for further investigation. Slemrod also emphasizes that technological innovations significantly influence taxpayer behavior. According to his research, the introduction of digital tax administration systems increases voluntary tax compliance by improving transparency and reducing opportunities for tax evasion. Several studies specifically examine the role of artificial intelligence in detecting tax fraud. Machine learning algorithms can analyze complex networks of financial transactions and identify hidden relationships between entities involved in illegal tax schemes. This significantly enhances the ability of tax authorities to detect sophisticated tax evasion strategies.

In the context of Uzbekistan, recent academic research highlights the importance of digitalization in improving tax administration efficiency. The introduction of electronic tax reporting systems, online cash registers, and electronic invoices has significantly increased the transparency of financial transactions and created new opportunities for advanced data analysis. Researchers emphasize that the successful implementation of artificial intelligence in tax

administration requires an appropriate legal and institutional framework. Issues related to data protection, algorithm transparency, and taxpayer rights must be carefully addressed in order to ensure the fair and effective use of AI technologies.

Overall, the literature demonstrates that artificial intelligence has become an important element of modern tax administration systems and has significant potential to transform tax control mechanisms in both developed and developing countries.

### **METHODOLOGY**

This research is based on a comprehensive methodological framework that combines theoretical analysis, legal analysis, and empirical evaluation of tax administration practices.

The theoretical foundation of the study is based on modern scientific literature devoted to digital taxation, public financial management, and artificial intelligence technologies in public administration. Academic publications, international research reports, and analytical studies related to tax administration reforms were examined to identify the main trends and conceptual approaches in this field.

The legal analysis method was used to examine the regulatory framework governing tax administration in the Republic of Uzbekistan. Particular attention was given to the provisions of the Tax Code of the Republic of Uzbekistan as of 2026, as well as presidential decrees and governmental resolutions aimed at digitalizing public administration and improving tax administration efficiency. These legal documents define the institutional structure of the tax system, the rights and responsibilities of taxpayers and tax authorities, and the mechanisms of tax control.

Comparative analysis was applied to evaluate international experiences in implementing artificial intelligence in tax administration. The practices of several developed tax systems were studied in order to identify best practices and potential models that could be adapted to the national context.

Statistical analysis was also used to examine available data related to the digitalization of tax administration in Uzbekistan. Information concerning electronic tax reporting, digital platforms, online cash registers, and electronic invoices was analyzed to evaluate the scale of digital transformation within the tax system and its potential compatibility with AI technologies.

### **RESULTS**

The analysis shows that artificial intelligence technologies provide a wide range of opportunities for improving the effectiveness of tax control systems. One of the most significant advantages of AI is its ability to process and analyze extremely large volumes of data within a short period of time. Modern tax administrations collect data from multiple sources, including tax declarations, electronic invoices, banking transactions, customs records, and business registries. The integration of these datasets creates a complex information environment that can be effectively analyzed using artificial intelligence algorithms. AI-based analytical systems can identify patterns and anomalies that may indicate tax evasion or non-compliance. For example, machine learning algorithms can analyze the relationships between companies, identify suspicious financial transactions, and detect inconsistencies in tax reporting. This enables tax authorities to focus their monitoring efforts on taxpayers who present higher risks of non-compliance.

Another important function of artificial intelligence in tax control is automated risk assessment. Risk-based tax administration has become a widely used approach in modern tax systems. AI technologies significantly improve this approach by allowing tax authorities to evaluate taxpayers using multiple risk indicators simultaneously.

In Uzbekistan, the digitalization of tax administration has significantly expanded the availability of electronic financial data. The introduction of electronic invoices, online cash registers, and electronic tax reporting systems generates millions of data records each month. These datasets provide valuable information that can be analyzed using artificial intelligence technologies to detect irregularities and potential tax violations. Artificial intelligence can also

improve the efficiency of tax audits. Traditional tax audits often require significant time and administrative resources. AI systems can automatically identify taxpayers with high risk profiles and prioritize them for inspection. As a result, tax authorities can conduct more targeted and effective audits.

In addition, AI technologies contribute to improving the interaction between tax authorities and taxpayers. Intelligent digital assistants and automated consultation systems help taxpayers obtain information about tax legislation, reporting procedures, and tax obligations. This improves voluntary tax compliance and reduces administrative burdens. The results of the study indicate that the integration of artificial intelligence into tax administration can significantly improve the transparency, efficiency, and accuracy of tax control processes.

### **DISCUSSION**

Despite the significant advantages associated with the use of artificial intelligence in tax administration, several challenges must be addressed in order to ensure its effective implementation. One of the main issues concerns data protection and privacy. Tax authorities manage large volumes of confidential financial information belonging to individuals and businesses. The use of artificial intelligence systems requires strict safeguards to ensure that taxpayer data is protected from unauthorized access and misuse. Another important issue relates to the transparency of AI-based decision-making processes. Artificial intelligence algorithms often operate as complex analytical systems whose internal logic may not be easily understandable to taxpayers or even to tax officials. In order to maintain public trust in the tax system, it is necessary to ensure that automated decisions can be explained and justified.

The reliability of data used in AI systems is also a critical factor. Artificial intelligence algorithms rely on large datasets for training and analysis. If the data is incomplete, inaccurate, or biased, the resulting decisions may also be flawed. Therefore, tax administrations must ensure high standards of data quality and effective data management practices. The implementation of artificial intelligence technologies also requires substantial investments in technological infrastructure and human resources. Tax administrations must develop advanced information systems, data storage facilities, and analytical platforms capable of supporting AI-based operations. At the same time, qualified specialists in data science, information technology, and digital governance are needed to develop and maintain these systems.

Nevertheless, international experience demonstrates that the long-term benefits of AI implementation in tax administration significantly outweigh the associated challenges. Countries that have successfully integrated AI technologies into their tax systems have reported improvements in tax compliance rates, reductions in administrative costs, and increased efficiency of tax audits. For Uzbekistan, the continued digital transformation of tax administration creates a strong foundation for the gradual implementation of artificial intelligence technologies in tax control.

### **CONCLUSION**

The study confirms that artificial intelligence technologies have considerable potential to transform tax control systems and improve the overall efficiency of tax administration. AI-based analytical systems enable tax authorities to process large volumes of financial data, identify potential tax violations, and conduct more targeted and effective tax audits. These technologies contribute to improving tax compliance, reducing the shadow economy, and strengthening fiscal discipline.

In the Republic of Uzbekistan, ongoing reforms aimed at digitalizing the tax system have created favorable conditions for the adoption of artificial intelligence technologies. The development of electronic tax reporting systems, digital platforms, and automated information systems provides the necessary data infrastructure for AI implementation. However, the successful integration of artificial intelligence into tax administration requires the development of comprehensive legal frameworks, effective data protection mechanisms, and investments in technological infrastructure and human capital. In the future, the wider application of artificial

intelligence in tax administration may become a key factor in modernizing national tax systems, improving fiscal governance, and supporting sustainable economic development.

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