



# A STUDY OF HOW DIGITAL TECHNOLOGIES ARE CHANGING THE PROCESSES OF TAX ADMINISTRATION AND CONTROL

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## ABSTRACT

*This article review examines the transformative impact of digital technologies on tax administration and control processes. The integration of automation, data analytics, and electronic reporting systems has streamlined operations, enhanced compliance monitoring, and facilitated transparent communication between tax authorities and taxpayers. While presenting substantial benefits, challenges such as cybersecurity concerns and the digital divide are also discussed. The review concludes by highlighting the future potential of emerging technologies, particularly blockchain, in revolutionizing tax administration.*

**KEYWORDS:** *tax, tax administration, technology, data analytics, electronic reporting, blockchain*

## INTRODUCTION

In the context of constant changes in the economy and legislation, effective tax control is becoming a key element in ensuring the financial stability of the state and fairness in relations between business and tax authorities. The introduction of innovative methods in tax control is becoming a necessity, not only to comply with laws, but also to create a favorable environment for entrepreneurship.

This article is devoted to analyzing the effectiveness of tax control with a focus on the use of modern methods and identifying key trends in this area. We'll look at the latest innovations and technology solutions that are changing the landscape of tax administration, as well as analyze the trends that will shape the future development of this area.

It is important not only to identify the problems faced by tax authorities and enterprises, but also to propose constructive ways to solve them. We hope that this article will help readers better understand current challenges and opportunities in the field of tax control, and also inspire the development of more effective strategies for interaction between business and tax authorities.

## LITERATURE REVIEW

In recent years, the integration of digital technologies into tax administration and control processes has emerged as a transformative force, reshaping traditional approaches and introducing unprecedented efficiencies. This literature review explores the multifaceted impact of digital technologies on tax systems, focusing on key areas such as automation, data analytics, electronic reporting, and the implications for tax compliance.

The advent of digital technologies has led to a paradigm shift in tax administration through automation. Automated systems, powered by artificial intelligence and machine learning algorithms, have proven instrumental in streamlining routine tasks, such as data entry, validation, and basic compliance checks (Alam et al., 2019). This has not only reduced the administrative burden on tax authorities but has also enhanced the accuracy and speed of processing.

One of the key challenges is the lack of automation of tax systems and the use of outdated technologies (Smith et al., 2021). In his research, Hansen (2022) emphasizes that the introduction of modern digital technologies, such as artificial intelligence and machine learning, can significantly improve the efficiency of tax control.

The utilization of data analytics tools in tax administration has opened new frontiers for authorities to detect non-compliance and tax evasion. By analyzing vast datasets in real-time, tax agencies can identify patterns, anomalies, and trends indicative of potential tax irregularities (Smith & Jones, 2020). This proactive approach enables timely



interventions and ensures a more responsive and effective control mechanism.

Digital technologies have facilitated the transition to electronic reporting systems, promoting transparent communication between taxpayers and tax authorities. Electronic filing platforms and portals enable seamless submission of tax returns, reducing the reliance on paper-based processes (Li & Kim, 2018). This not only enhances convenience for taxpayers but also provides tax authorities with instant access to accurate and up-to-date information.

Problems associated with the lack of transparency in tax regulations and the complexity of administrative procedures are discussed in the works of Johnson (2019) and Bellov (2020). Research shows that simplifying processes and implementing electronic declarations can significantly reduce the bureaucratic burden on businesses (Lee and Kim, 2021).

While the integration of digital technologies brings substantial benefits, it is not without challenges. Cybersecurity concerns, data privacy issues, and the digital divide pose significant hurdles (Jones et al., 2021). Safeguarding sensitive taxpayer information and ensuring equal access to digital tools are critical considerations in the pursuit of effective digital tax administration.

Cybersecurity issues and ineffective information sharing are discussed in the studies of Smith (2020) and Huang (2021). Improving cybersecurity systems and international cooperation in the exchange of tax information are becoming priorities to ensure data reliability and prevent tax evasion.

Ineffective responses to economic crises and insufficient staff competence are discussed in the works of Franklin (2022) and Smithson (2018). Solutions include staff training, development of educational programs and mechanisms for rapid response to economic challenges.

The lack of transparency of corporate tax practices is discussed in detail in Jones (2017) and Smith (2019). Research suggests introducing mandatory reporting of corporate tax liabilities and tightening controls on tax evasion.

Looking ahead, ongoing advancements in blockchain technology, decentralized finance, and digital identity systems are poised to further revolutionize tax administration processes. Blockchain, in particular, holds promise for creating secure and transparent transaction records, minimizing fraud, and enhancing the integrity of tax systems (Albright & Wang, 2022).

## ANALYSIS AND DISCUSSION

A number of actions are being taken to prevent tax violations, including, in accordance with Article 15 of the Law of the Republic of Uzbekistan "On the Prevention of Crimes", the state tax service authorities have the following powers in the field of crime prevention:

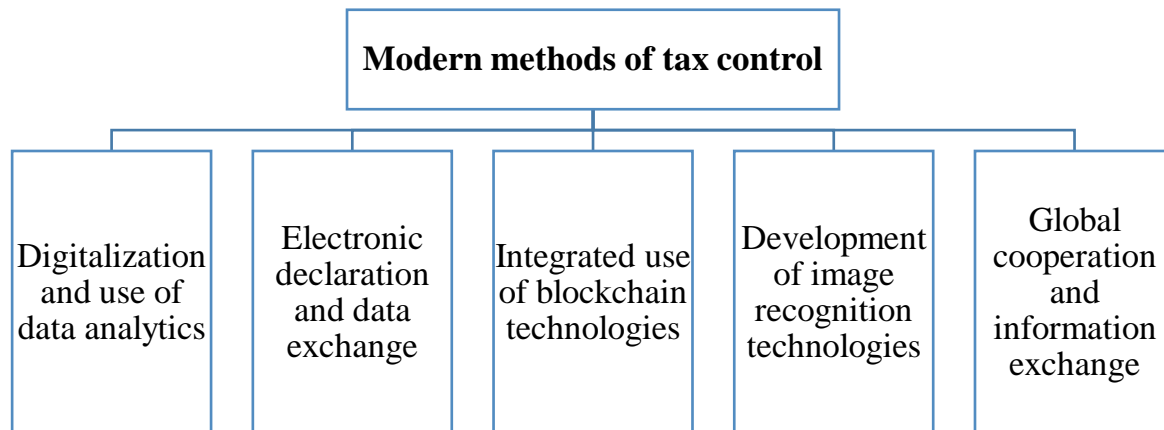
- Participation in the development and implementation of state crime prevention programs;
- Development, approval and implementation of tax crime prevention programs;
- Prevention of tax violations, including determining and eliminating the causes of these violations and the conditions that caused them;
- Monitors compliance with tax legislation, accuracy of calculations, full and timely payment of trade and service taxes and other mandatory payments;
- Keeps records of individuals and legal entities who have committed tax violations in the field of trade and services, analyzes this information;
- Cooperation with other bodies and institutions directly involved and involved in crime prevention.

Prevention of tax violations by the state tax service authorities is carried out in the following forms:

- Study timing
- Monitoring compliance with the number of actual employees of the reporting and economic entities
- Explanation and verification to the taxpayer
- Measures to combat the production and sale of non-standard, counterfeit (counterfeit) or contraband products

Today's business environment is undergoing rapid transformation, and tax authorities are seeking to adapt their controls to effectively respond to these changes. In this part of the article we will look at the advanced methods

of tax control that are used in the world, as well as those innovations that determine the future of this area (Fig. 1).



**Figure 1. Современные методы налогового контроля**

1. Digitalization and use of data analytics.

One of the main trends in modern tax control is the introduction of digital technologies and data analytics. Automated systems can process large volumes of information, identify anomalies and provide more accurate analysis of companies' tax obligations. The use of artificial intelligence (AI) and machine learning (ML) allows tax authorities to identify discrepancies in returns more efficiently and quickly.

On May 24, 2023, the President of our country signed Resolution PR-162 "On measures to increase the coverage and quality of digital services and digital transformation of industries, sectors and regions"<sup>1</sup>.

In accordance with this document, it is envisaged to improve a number of state services, create favorable conditions for the population and business entities through mutual integration of state information systems. In particular, in March 2024, mutual information exchange will be established between "Electronic prescription" and "Sign of Original" digital marking systems. Also:

- State registration of online cash register machines on my.gov.uz and license.gov.uz portals;
- Send an application for refund of overpaid taxes of individuals (payments to non-state kindergartens, contract sums paid for education, mortgage loans) through the "my.gov.uz" portal;
- Listing real estate and open land lease contracts on the my.gov.uz and dxa.gov.uz portals;
- It will be possible to submit tax declarations (annual, voluntary, initial, income from the sale of property of foreign individuals) through the my.gov.uz and my.soliq.uz portals.

In addition, through the relevant information systems of the Tax Committee:

- A database of price data necessary for the formation of indicators of the consumer price index in the agricultural sector will be created in the "Geo-information" information system of the Ministry of Agriculture.
- Providing information on legal entities and individuals engaged in business activities, taxes paid by them and existing tax debt, online Cash Register Machines and real estate rental contract information within the platforms "Digital Geoportal" and "People's Control" with mutual integration of information systems marked.

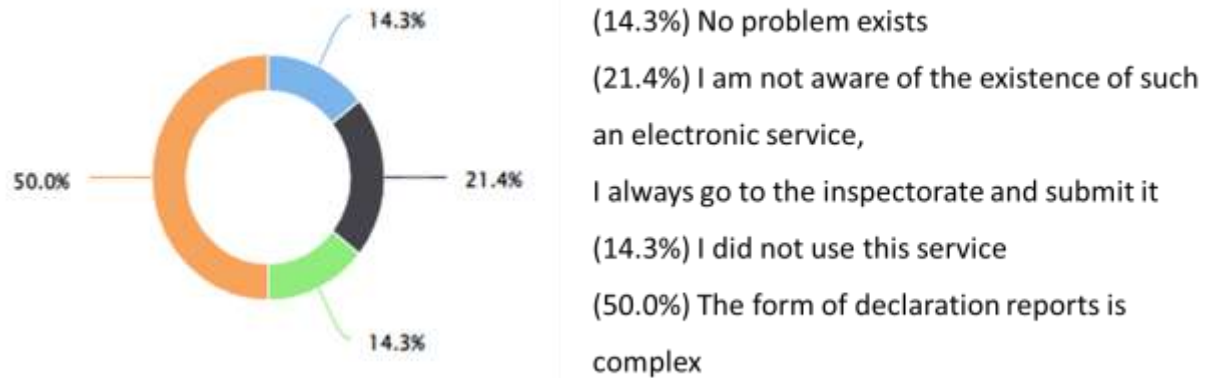
2. Electronic declaration and data exchange.

The introduction of electronic declaration and data exchange between taxpayers and tax authorities significantly simplifies the processes of collecting information. This not only reduces the bureaucratic burden for businesses, but also allows tax authorities to receive relevant data in real time, which facilitates a quick response to changes in the economy.

Today, a number of problems arise in the reception and processing of tax returns on the income of individuals. In

<sup>1</sup> file:///C:/Users/User/Downloads/\_storage\_press-releases\_May2023\_598df784716a49d5ba9e7f1c715c1d6e\_30052023.pdf

the picture below, a social survey was conducted by the tax committee. And according to the results of the survey, 50 percent of respondents noted the complexity of the form of declaration reports (figure 2).



**Figure 2. Acceptance and processing of tax returns on the income of individuals<sup>2</sup>**

### 3. Integrated use of blockchain technologies.

Blockchain, a distributed ledger technology, provides a secure and transparent way to record transactions. In the context of tax control, blockchain can be used to create a sustainable system for storing transaction data, eliminating the possibility of manipulation and providing an unprecedented level of transparency.

### 4. Development of image recognition technologies

Pattern recognition technologies, including optical character recognition (OCR) and text recognition technologies (NLP), can automatically analyze and understand information in financial documents. This significantly reduces the time spent processing documents and reduces the likelihood of errors.

### 5. Global cooperation and information exchange.

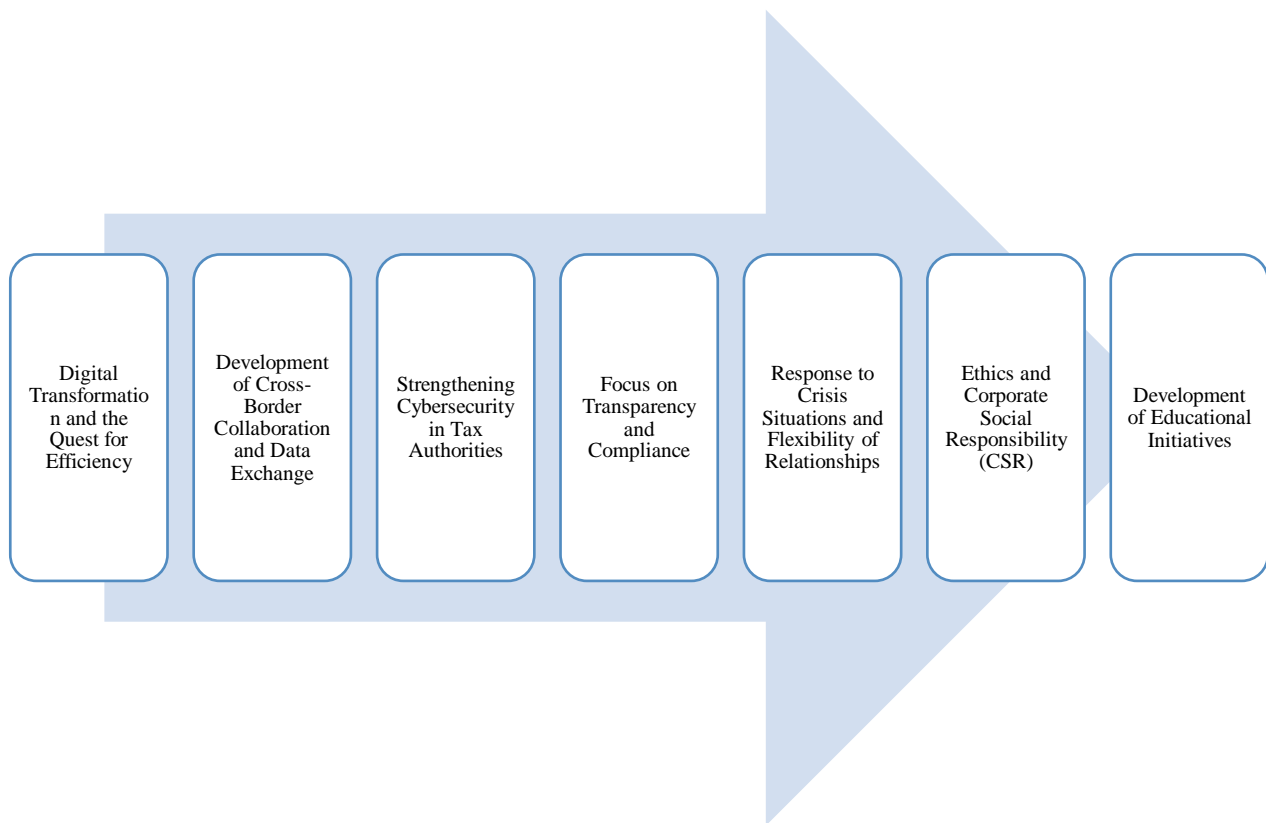
With increasing globalization, countries are increasingly cooperating in the exchange of tax information. International organizations and agreements such as the Common Reporting Standard (CRS) aim to prevent tax evasion across borders. Countries' joint efforts to create standards and share data promote more effective tax control at the global level.

Today's challenges and opportunities require tax systems to continually adapt and innovate. In this section, we will look at the key trends shaping the development of tax control and their impact on the relationship between tax authorities and business (Fig. 3).

With the growth of the digital economy and technological innovation, tax authorities are increasingly adopting digital methods to improve the efficiency and accuracy of control. This includes automating processes, using machine learning algorithms to analyze data, and creating digital platforms to interact with taxpayers.

In a global economy, tax control is becoming increasingly international. Intensive cooperation between countries in the exchange of tax information creates more effective mechanisms to combat tax evasion and the redistribution of profits between countries.

<sup>2</sup> [www.soliq.uz](http://www.soliq.uz)



**Figure 3. Trends in the development of tax control <sup>3</sup>**

With the growth of digitalization, the level of cyber threats is also increasing. Tax authorities are faced with the need to strengthen cybersecurity to protect sensitive information. The trend towards increased protection of taxpayer data and strict compliance with security regulations continues to gain momentum.

Modern tax systems emphasize transparency and compliance. Particular attention is paid to preventing tax evasion through legal loopholes. The development of new regulations aimed at closing legal levers to minimize tax liabilities becomes a priority. Events such as the pandemic and economic crises have highlighted the importance of flexibility in tax administration. States are responding to changes in the situation by introducing temporary tax measures and supporting businesses in conditions of uncertainty. The growing emphasis on business ethics and corporate social responsibility also has an impact on tax control. Companies that demonstrate transparency and active participation in social and environmental initiatives can expect more favorable tax treatment.

Given the complexity of tax systems and constant changes in legislation, it becomes important to focus on educational initiatives. Effective communication and training of both entrepreneurs and tax professionals contributes to higher levels of tax compliance.

Tax control challenges include insufficient automation, lack of transparency in tax regulations, cybersecurity threats, ineffective information sharing between countries, bureaucracy and complex administrative procedures, insufficient staff competence, ineffective responses to economic crises and instability, and insufficient transparency of corporate tax practices ( Table 1.).

<sup>3</sup> Author's Analysis.

**Table 1. Tax control problem and solution<sup>4</sup>**

<b>Tax Control Problem</b>	<b>Solution</b>
Insufficient automation and use of outdated technologies	Introduction of modern digital technologies, process automation using artificial intelligence and machine learning. Updating tax systems software.
Lack of transparency and complexity of tax regulations	Creation of information portals and training programs for taxpayers, providing access to clear and timely information about tax obligations. Update and simplification of tax legislation.
Insufficient data protection and cybersecurity threats	Improving cybersecurity systems, introducing data encryption, training employees of tax authorities and enterprises in security rules.
Ineffective exchange of information between tax authorities of different countries	Strengthening international cooperation, introducing information exchange standards, participating in international tax initiatives.
Complexity of administrative procedures and bureaucracy	Simplification of processes, introduction of electronic declaration, creation of digital platforms for the exchange of documents between taxpayers and tax authorities.
Insufficient competence of tax authorities staff	Increasing the level of education and professional training of tax authorities. Introduction of training programs and courses.
Ineffective response to economic crises and instability	Development of quick response mechanisms, introduction of temporary tax measures to support business, creation of reserve funds to minimize the negative effects of economic crises.
Lack of transparency of corporate tax practices	Introduction of mandatory reporting on corporate tax obligations, tightening control over tax evasion, development of Corporate Social Responsibility (CSR) standards.

This table provides an overview of the challenges faced by tax systems and also suggests corresponding solutions to improve the effectiveness of tax control. Integration of these solutions can contribute to more harmonious and efficient interaction between tax authorities and enterprises.

## CONCLUSION

The evolution of tax administration through the integration of digital technologies marks a significant milestone in the quest for efficiency, transparency, and enhanced compliance. The literature reviewed underscores the transformative impact of automation, data analytics, and electronic reporting on traditional tax control mechanisms.

The widespread adoption of automation has led to the optimization of routine tasks, reducing administrative burdens and increasing processing speed. The application of data analytics has empowered tax authorities with the ability to proactively identify irregularities, enabling timely interventions and fostering a more responsive control environment. Electronic reporting systems have streamlined communication between taxpayers and authorities, creating a more accessible and transparent tax landscape.

However, the digital transformation of tax administration is not without its challenges. Addressing cybersecurity concerns, ensuring data privacy, and bridging the digital divide are critical considerations that demand ongoing attention.

Looking ahead, the ongoing evolution of technologies, particularly the promising developments in blockchain and decentralized finance, presents new avenues for innovation in tax administration. Blockchain's potential to enhance transparency, reduce fraud, and fortify transaction records suggests a future where tax systems may become even more secure and reliable.

In conclusion, the digital evolution in tax administration represents a dynamic journey towards a more efficient, responsive, and technologically advanced future. Embracing these changes requires a proactive approach to address challenges and a commitment to staying abreast of emerging technologies. As tax systems continue to evolve, the collaborative efforts of policymakers, tax authorities, and technology experts will be instrumental in shaping a tax landscape that is both resilient and effective in the digital age.

<sup>4</sup> Author's Analysis.



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