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# IMPROVEMENT AND PROSPECTS OF TAX COLLECTION PROCESSES USING DIGITAL TECHNOLOGIES

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## ABSTRACT

This article analyzes the role of digital technologies in the modernization of tax collection and administrative management systems, demonstrating that technologies such as Big Data, Artificial Intelligence, and Blockchain can significantly increase tax collection efficiency, tax compliance, and service quality. At the same time, it identifies pressing issues such as data security, technological adaptation, and legal and social challenges, and proposes strategic directions for addressing them.

**Keywords:** Digital transformation, tax collection system, tax administration, Big Data, artificial intelligence, blockchain technology, tax policy, data security, taxpayer support, digital services.

## INTRODUCTION

Today, as digital transformation is rapidly developing globally, information technologies are fundamentally changing various aspects of economic and social life in the Republic of Uzbekistan. The introduction of advanced technologies such as Big Data, Artificial Intelligence, and Blockchain is not only helping to modernize the production and service sectors, but also increasing the efficiency of public administration and tax administration.

The tax collection system is one of the main tools for generating national budget revenues, ensuring economic stability, and strengthening social justice in Uzbekistan. Therefore, integrating digital technologies into tax collection and management processes, increasing their efficiency, and ensuring transparency are urgent tasks today.

The purpose of this article is to analyze the use of digital technologies in tax collection and the tax system in Uzbekistan, their impact on efficiency, tax discipline and service quality, as well as technological, legal and social problems. The study compares domestic and international practical experiences and develops strategic recommendations for the development of digital tax administration.

This article provides an in-depth analysis of the impact of digital technologies on tax administration in Uzbekistan, identifying practical directions and prospects for modernizing tax collection and management processes. At the same time, specific strategies are proposed on issues such as technological adaptation, data security, personal data protection, legislative updates, and social acceptance.

The digital economy continues to grow globally. The introduction of online service platforms such as Internet platforms, artificial intelligence, Big Data, blockchain technologies, mobile tax applications such as "E-Tax", "Tax-24" eliminate time and space constraints, and convenient and effective electronic services for taxpayers quickly reach consumers. Uzbekistan is not left out of this process, and a number of regulatory and legal documents are being adopted to expand the digital services market and increase tax revenues. At the same time,

tax revenues from electronic services provided to Uzbekistan by foreign companies are growing rapidly.

## 1. Application of digital technologies in tax collection and administrative management.

### 1.1. General information about digital technologies.

Before analyzing the application of digital technologies in tax collection and administrative management, it is important to provide a brief description of the main technologies in this process.

Big Data is a technology that combines huge volume, high speed and diverse data, providing an unprecedented wealth of information resources for tax collection and management. This allows tax authorities to more fully understand the true state of economic activity.

Artificial Intelligence, on the other hand, enables the intelligent transformation of the tax collection and management system by using algorithmic models to predict tax risks and support decision-making processes through powerful data processing and learning capabilities.

At the same time, blockchain technology, with its decentralized and immutable nature, strongly protects the authenticity, integrity, and security of tax data, resulting in increased reliability of tax collection and management.

### 1.2. Practical examples of digital transformation in tax collection and administration.

In recent years, tax authorities, both domestically and internationally, have been exploring ways to implement digital technologies, creating a number of practical examples. For example, the widespread introduction of e-tax offices in Ireland has significantly simplified taxpayers' tax-related processes and provided online, convenient services. At the same time, smart tax audit systems have made it possible to identify potential tax risks through big data analysis, which has increased the accuracy and efficiency of audit work.

Foreign countries have integrated digital technologies into their tax collection and management systems. For example, they are using artificial intelligence in automated tax audits and using blockchain technology to ensure transparent sharing of tax information. These practical examples serve as valuable experiences for the digital transformation of the global tax system.

### 1.3. Analysis of application effectiveness.

The use of digital technologies in the field of tax collection and administration has yielded significant results. First of all, by optimizing the processes of data collection, processing and analysis, tax authorities can quickly and accurately determine the business status of taxpayers, as a result of which the efficiency of tax collection and administration increases significantly.

Second, digital technologies can help to increase the transparency and control of tax policies, reduce tax gaps, and increase taxpayer compliance. In addition, digital technologies can enrich tax service channels and improve service quality. For example, online consultation and meeting services provided by e-tax bureaus can more effectively meet the diverse and personalized needs of taxpayers.

In conclusion, digital technologies have become a significant force driving the modernization and transformation of tax collection and administration.

## 2. The impact of digital technologies on tax collection and administrative management systems.

### 2.1. Innovations in the collection and management model.

The introduction of digital technologies has fundamentally stimulated innovation in tax collection and administrative management models. The traditional, labor-intensive management model is gradually being replaced by a modern, intelligent management model based on big data and artificial intelligence. Through automated data processing and analysis, tax authorities are able to monitor and accurately assess taxpayers' activities in real time, thereby increasing the accuracy and speed of management work.

The application of blockchain technology has also revolutionized the tax collection and management model. Its decentralized and immutable nature provides the technical foundation for creating a transparent and fair tax environment, ensuring the authenticity and security of tax data.

### 2.2. Improving management efficiency.

The significant advantages of digital technologies in data collection, processing and analysis have significantly increased the efficiency of tax collection and management. On the one hand, the widespread use of big data technology allows tax authorities to quickly collect and integrate large amounts of data. On the other hand, through the use of artificial intelligence algorithms, tax authorities automate processes such as data comparison and analysis, which reduces the intervention of the human factor and reduces the level of errors. This efficient data processing capability shortens the management cycle, increases the accuracy and timeliness of work, and ultimately creates a solid guarantee for the sustainable growth of tax revenues.

### 2.3. Strengthening tax discipline.

Digital technologies have significantly improved taxpayer compliance by increasing the transparency of tax policies and strengthening supervision. On the one hand, tax authorities provide information on tax policies, procedures and other issues through digital platforms, which increases taxpayer awareness and participation, and reduces the risk of tax evasion caused by information asymmetry. On the other hand, with the help of smart tax audit systems, tax authorities can accurately profile taxpayers, quickly identify and correct tax violations, thereby effectively preventing potential tax evasion attempts. This multi-faceted, multi-level supervision system not only enhances the preventive effect of tax collection and management, but also strengthens tax discipline.

### 2.4. Optimization of tax services.

Digital technologies have enriched tax service channels and significantly improved service quality. The introduction of online service platforms such as “E-Tax”, “Tax-24” and mobile tax applications eliminates time and space constraints and provides taxpayers with convenient and efficient service. In addition, with the help of artificial intelligence-based customer service

and smart voice navigation technologies, tax authorities provide smart tax services by responding to taxpayers' inquiries and questions in real time. This taxpayer-oriented service not only meets the diverse and personalized needs of taxpayers, but also increases their satisfaction and loyalty, creating a solid foundation for building a harmonious relationship between taxpayers and tax collectors.

## 3. Problems in tax collection and administrative management based on digital technologies and ways to overcome them.

### 3.1. Technical problems.

In the process of developing tax collection and management based on digital technologies, technical issues cannot be ignored. First of all, data security is the most important issue. When large amounts of data are processed and transmitted in a centralized manner, ensuring their security during the processes of collection, storage, transmission and use, and preventing data leakage and misuse, is an urgent task. The second problem is technological compatibility. The incompatibility of data formats and interface standards in different systems leads to data isolation, hindering their effective integration and use. The issue of personal data protection is also of great importance. Improving the efficiency of management while protecting taxpayers' personal data and not violating their legal rights is an ethical and legal issue that needs to be resolved technically.

### 3.2. Legal and institutional challenges.

Tax collection and administration based on digital technologies also face legal and institutional barriers. On the one hand, existing laws and regulations lag behind the pace of technological development, which makes it difficult to cover new situations and issues in digital tax collection and administration. Therefore, legislative bodies need to urgently improve the regulatory framework. Second, institutional barriers limit the promotion and implementation of digital tax collection and administration. For example, insufficient inter-agency information exchange mechanisms and the incompatibility of tax collection and administration processes with digital technologies require institutional innovation and optimization.

### 3.3. Problems with social acceptance

The issue of public acceptance of tax collection and administration based on digital technologies is also not ignored. Changes in the knowledge, attitudes and behavior of stakeholders, such as taxpayers and tax officials, directly affect the effectiveness of implementing a digital tax system. Some taxpayers may be unfamiliar with or distrustful of new technologies, which negatively affects tax compliance. Tax officials, on the other hand, face difficulties in adapting to new management models due to a lack of sufficient skills or conceptual changes. Therefore, raising public awareness, training and encouraging stakeholder acceptance and participation in the digital tax system are important.

### 3.4. Ways to solve problems.

In response to the problems highlighted above, the following strategic solutions are proposed:

1. By developing technological innovations, we can increase the ability to ensure data security, improve personal data protection systems, and promote the unification and mutual recognition of various technical standards. This will significantly increase the stability and reliability of digital tax administration.
2. Strengthening the legislative and regulatory framework to clearly define rights and obligations in digital tax collection and management processes, updating regulatory documents, and accelerating legislative processes is essential. At the same time, it is important to create the necessary legal guarantees for the use of new technologies.
3. Extensive use of advocacy, education, skills training and other tools to enhance public awareness and capacity building. This will increase taxpayers' and tax officials' understanding and acceptance of the digital tax system, as well as encourage the widespread use and deep integration of new technologies in tax collection and administration processes.

## 4. Development trends in tax collection and administrative management based on digital technologies.

### 4.1. Technological development trends.

In the future, digital technologies such as Big Data, Artificial Intelligence, and Blockchain will show more comprehensive development prospects in the tax sector. Big data technology will be applied more deeply in the analysis of tax data, and by identifying the potential value in large amounts of data, it will provide a more accurate database for formulating and amending tax policies. Artificial intelligence will strengthen its central role in tax collection and management processes, and in addition to automated processing and intelligent auditing, it will also be applied to high-level practices such as risk assessment and forecasting, ensuring intelligent innovation in tax collection and management. Blockchain technology, with its decentralized and immutable features, will create unique advantages in cross-border tax management and monitoring of tax sources, thereby increasing transparency and efficiency in tax administration.

### 4.2. Reforming the tax collection and administration system

As the application of digital technologies deepens, the tax collection and management system will undergo unprecedented changes. On the one hand, the collection and management model will become more intelligent and automated, reducing the human factor and increasing efficiency and accuracy. On the other hand, digital technologies will help restructure and optimize tax collection and management processes, ensuring accurate and personalized management tailored to the needs of different taxpayers. At the same time, digital technologies will increase the transparency and enforcement of tax policies, strengthen taxpayer discipline and satisfaction, and contribute to creating a fair and transparent tax environment.

### 4.3. International cooperation and exchange of experience.

In the context of globalization, cross-border tax issues are becoming increasingly urgent, and international cooperation and exchange of experience are an important tool in resolving them. Digital technologies provide new opportunities and platforms for international tax cooperation. By sharing tax information, coordinating tax policies and strengthening technical cooperation, countries can jointly address issues such as monitoring cross-border tax sources, international tax evasion and tax avoidance, which will serve the development of a global tax governance system. At the same time, international cooperation and exchange of experience can promote the process of uniform and mutual recognition of digital tax standards, facilitating the coordination and integration of global tax collection and administration systems.

## CONCLUSION

In conclusion, the rapid development of digital technologies is reshaping the global tax collection and administration system in an unprecedented way. This process significantly improves tax collection efficiency, enriches tax service methods, and encourages tax compliance. At the same time, there are also challenges related to technological, legal, institutional, and social acceptance. By strengthening technological innovation, improving legislation, and developing social awareness and training systems, these challenges can be effectively addressed and digital tax collection and administration can be directed towards a more efficient, fair, and transparent direction.

In the future, as big data, artificial intelligence, blockchain and other advanced technologies are further improved and their applications expanded, the tax collection and management system will undergo a deeper transformation, which will create a strong impetus for the modernization of tax administration and the development of international cooperation and experience exchange.

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