



## FACTORS ENHANCING TAX SYSTEM EFFICIENCY IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT

Jurayev Xusan Atamuratovich  
Termez University of Economics and Service

### Abstract

This study examines the factors influencing the efficiency of Uzbekistan's tax system in the context of sustainable development. Using a mixed-methods approach, data were collected through surveys and interviews with 300 taxpayers and tax officials, supplemented by secondary data from the State Tax Committee, State Statistics Committee, IMF, World Bank, and OECD reports. The analysis demonstrates that digitalization, administrative reforms, and taxpayer engagement significantly enhance tax revenue collection, reduce informal economic activities, and improve overall fiscal performance. Regional disparities were identified, with urban areas showing higher efficiency than rural regions, highlighting the need for targeted interventions. The study provides evidence-based recommendations to strengthen the tax system, support equitable revenue collection, and contribute to sustainable economic growth in Uzbekistan.

**Keywords:** Tax system efficiency, sustainable development, digitalization, fiscal policy, Uzbekistan, informal economy.

### Introduction

The efficiency of the tax system is a key factor in achieving economic stability, social equity, and sustainable development. Globally, countries are increasingly focusing on tax reforms to strengthen their fiscal capacity, reduce informal economic activities, and align with Sustainable Development Goals (SDGs). According to the OECD, countries that implemented digital tax administration and improved compliance mechanisms have seen an average increase of 4–6% in tax revenue as a share of GDP, demonstrating the critical role of efficient tax systems in economic growth and public service funding[1].

In Uzbekistan, improving tax system efficiency is particularly relevant. The country's GDP reached \$101.6 billion in 2023, marking a 12% growth compared to 2022, while tax revenue accounted for 26.18% of GDP. However, a substantial informal economy—estimated at 28.4% of GDP—limits the effectiveness of tax collection and results in significant revenue losses. Moreover, regional disparities exist, with urban industrial regions contributing significantly more in taxes than rural areas, where agriculture predominates and informal employment is common[2].

Addressing these challenges is vital for Uzbekistan to achieve equitable and sustainable economic development. Enhancing tax system efficiency through digitalization, simplifying tax procedures, and formalizing the informal sector will not only increase fiscal revenue but also improve financial inclusion and promote social stability. Therefore, studying the factors that enhance tax system efficiency in the



context of sustainable development is highly relevant, as it provides evidence-based recommendations for policy reforms that strengthen both economic and social outcomes.

## Methodology

This study employs a mixed-methods approach to analyze factors influencing the efficiency of Uzbekistan's tax system in the context of sustainable development. Primary data were collected through structured surveys and interviews with 300 respondents, including individual taxpayers, small business owners, and tax officials, covering tax compliance behavior, awareness of tax regulations, and perceptions of fairness. Secondary data were sourced from the State Tax Committee, the State Statistics Committee, IMF, World Bank, and OECD reports to provide information on GDP, tax revenues, regional contributions, and informal economic activity. Stratified sampling ensured representation across urban (60%) and rural (40%) areas, as well as different income levels and business sectors[3]. Quantitative analysis included descriptive statistics and regression modeling to examine relationships between tax system efficiency, digital tax adoption, and socioeconomic factors. The regression model used was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 Z_i + \epsilon_i$$

where  $Y_i$  represents tax system efficiency indicators,  $X_i$  the adoption level of digital tax tools, and  $Z_i$  control variables such as income, sector, and region. Qualitative analysis of interviews provided insights into challenges in tax administration, barriers to compliance, and opportunities for reform. Cross-regional comparisons and robustness checks were applied to validate findings and ensure reliability of conclusions.

## Results

The analysis of Uzbekistan's tax system demonstrates substantial progress in revenue collection, digitalization, and compliance over recent years. According to official data from the State Tax Committee, total tax revenue as a percentage of GDP increased from 24.6% in 2021 to 26.18% in 2023, representing a growth of 6.5%. This increase reflects both economic growth and improvements in tax administration[4]. The adoption of digital tools, such as online tax filing, electronic reporting, and automated monitoring systems, has significantly contributed to this improvement. Surveys conducted with 300 taxpayers, including individuals and small business owners, showed that 68% of respondents actively use digital tax services. Adoption is higher in urban areas (75%) compared to rural areas (58%), highlighting regional disparities in digital access and financial literacy [5].



**Table 1. Tax system efficiency indicators in Uzbekistan (2021–2023)<sup>1</sup>**

No	Indicator	2021	2022	2023	Change (%)
1	Tax Revenue (% of GDP)	24.6	25.4	26.18	+6.5
2	Digital Tax Service Usage (%)	55	62	68	+23.6
3	Informal Economy (% of GDP)	30.2	29.1	28.4	-6.0
4	Urban Adoption of Digital Tax (%)	65	70	75	+15.4
5	Rural Adoption of Digital Tax (%)	48	53	58	+20.8

The regression analysis confirmed a strong positive relationship between digital tax tool adoption and overall tax system efficiency. Specifically, the model showed that increased usage of online filing systems and digital compliance tools ( $X_i$ ) significantly boosts tax revenue collection ( $Y_i$ ), controlling for socioeconomic factors ( $Z_i$ ) such as income level, sector type, and regional characteristics. The estimated coefficient for digital adoption was positive and statistically significant at the 5% level ( $p < 0.05$ ), indicating that digitalization is a key driver of efficiency[6].

Qualitative interviews with tax officials and business owners revealed that taxpayers perceive digital services as more transparent, convenient, and less time-consuming compared to traditional methods. This perception fosters compliance, reduces errors in reporting, and limits opportunities for tax evasion. Furthermore, respondents highlighted that simplified online procedures, real-time notifications, and accessible digital support services improve taxpayer trust and encourage participation in the formal economy.

Regional comparisons further highlighted disparities in tax efficiency. Urban areas, particularly Tashkent and other industrial hubs, contribute disproportionately to tax revenues due to higher economic activity and greater digital adoption. In contrast, rural areas show lower efficiency due to limited access to digital infrastructure, higher informal employment, and lower financial literacy. These findings indicate that targeted policy interventions—such as expanding digital tax infrastructure, conducting taxpayer education campaigns, and simplifying filing procedures—are essential to improve compliance and efficiency across all regions.

Overall, the results demonstrate that digitalization, administrative reform, and taxpayer engagement play a central role in enhancing Uzbekistan’s tax system efficiency. By addressing informal economy challenges and regional disparities, these measures not only increase revenue collection but also support equitable economic growth and the broader goals of sustainable development.

## Discussion

The findings of this study indicate that the efficiency of Uzbekistan’s tax system is strongly influenced by digitalization, administrative reforms, and regional socioeconomic factors. The increase in tax revenue from 24.6% of GDP in 2021 to 26.18% in 2023 demonstrates that reforms such as online tax filing, electronic reporting, and automated monitoring systems have a tangible impact on revenue

<sup>1</sup> Source: Developed based on the author’s own research.



collection. These results are consistent with global trends, where OECD countries adopting digital tax administration systems have reported similar improvements in efficiency, reduced errors, and higher compliance rates. This indicates that Uzbekistan's tax reforms are aligned with international best practices and contribute to sustainable fiscal development[7].

Digital adoption has proven to be a crucial driver of efficiency. Survey results show that 68% of taxpayers regularly use digital tax services, with urban adoption at 75% and rural adoption at 58%. The positive relationship between digital usage and tax revenue, confirmed through regression analysis, underscores the importance of continuing to expand digital infrastructure and promote digital literacy, particularly in rural areas. These findings align with studies in other developing countries, which suggest that digital tools not only streamline tax reporting but also reduce opportunities for informal economic activity, thereby broadening the tax base.

The study also highlights regional disparities as a critical challenge. Urban centers contribute disproportionately to tax revenues due to higher economic activity and better access to digital services, while rural regions lag behind. This gap emphasizes the need for targeted interventions, such as taxpayer education campaigns, simplified filing procedures, and the provision of digital support services in rural areas. By reducing these disparities, the government can ensure more equitable revenue collection and enhance overall economic stability.

Qualitative insights from interviews indicate that taxpayers perceive digital services as more transparent and convenient, which encourages compliance and reduces the risk of errors or evasion. Trust in the tax system is therefore closely linked to efficiency: as taxpayers gain confidence in digital tools and fair administration, compliance increases. This observation is consistent with international evidence showing that taxpayer trust and engagement are essential for effective tax policy implementation.

Finally, the study confirms that enhancing tax system efficiency has broader implications for sustainable development. By increasing revenue collection, reducing informal economic activities, and ensuring equitable regional contributions, the tax system supports public service provision, economic inclusivity, and social stability. These outcomes demonstrate that targeted reforms in tax administration are not only necessary for fiscal performance but also for achieving Uzbekistan's long-term development objectives.

## **Conclusion**

The study demonstrates that the efficiency of Uzbekistan's tax system is a key factor in promoting sustainable economic development. The analysis shows that digitalization, administrative reforms, and taxpayer engagement significantly enhance tax revenue collection, reduce informal economic activities, and improve overall fiscal performance. The positive relationship between the adoption of digital tax tools and tax system efficiency highlights the importance of expanding digital infrastructure and promoting digital literacy, especially in rural areas.

Regional disparities in tax contribution remain a challenge, with urban centers outperforming rural regions due to higher economic activity and better access to digital services. Addressing these



disparities through targeted interventions, such as simplified tax procedures, taxpayer education, and digital support services, is essential for equitable revenue collection and inclusive development. Furthermore, the study indicates that taxpayer trust and perception of transparency are crucial for improving compliance. Digital tools not only make tax filing more convenient but also foster confidence in the system, which encourages voluntary compliance and reduces errors or evasion. Overall, improving the efficiency of the tax system in Uzbekistan contributes to broader sustainable development goals by increasing fiscal capacity, ensuring equitable regional contributions, and promoting economic and social stability. These findings provide evidence-based recommendations for policymakers to strengthen the tax system, optimize revenue collection, and support long-term sustainable development.

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