AJPDIS
GLOBAL RESEARCH NETWORK

AMERICAN Journal of Public Diplomacy and International Studies
Volume 4, Issue 03, 2026 ISSN (E):2993-2157

Developing an Electronic Taxation System in the Digital Economy

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Abstract: This article examines the development of electronic taxation systems in the context of the digital economy. The study analyzes the role of digital tax administration in improving efficiency, increasing tax revenues, reducing the shadow economy, and enhancing the quality of taxpayer services. The findings indicate that the implementation of digital technologies, including electronic invoicing systems, real-time monitoring, and artificial intelligence-based analytical tools, significantly improves transparency and strengthens tax compliance. The case of Uzbekistan demonstrates that the introduction of electronic tax systems contributes to higher tax revenue collection and reduced administrative costs. The results highlight that the development of electronic taxation is a key factor in ensuring economic stability and building a modern fiscal management system in the digital era.

Keywords: digital economy, electronic taxation, tax administration, tax revenue, artificial intelligence, e-invoicing, tax compliance, fiscal policy.

Introduction

The The rapid development of the digital economy has significantly transformed public finance systems, particularly tax administration. Governments worldwide are increasingly adopting electronic taxation systems to improve efficiency, transparency, and revenue collection. Digital technologies such as e-filing platforms, electronic invoicing, big data analytics, and artificial intelligence are reshaping traditional tax administration models and enabling more effective fiscal governance.

In this context, electronic taxation has become a key component of modern economic policy [1]. It reduces administrative burdens, enhances taxpayer compliance, and minimizes opportunities for tax evasion. According to international experience, countries that have successfully implemented digital tax systems have achieved higher levels of tax collection and improved institutional performance. These developments highlight the growing importance of integrating digital solutions into tax systems, especially in developing economies [2], [3].

Uzbekistan has made significant progress in this area by introducing comprehensive electronic tax platforms and digital services. The transition to fully electronic tax reporting, the implementation of e-invoicing systems, and the expansion of online taxpayer services demonstrate the country's commitment to digital transformation. However, despite these achievements, further improvements are needed to maximize the effectiveness of electronic taxation and ensure long-term fiscal sustainability [4].

The main objective of this study is to analyze the role of electronic taxation systems in the digital economy and to evaluate their impact on tax efficiency, compliance, and revenue generation. The study also aims to identify key challenges and propose policy recommendations for further development.

Methodology

This study employs a combination of qualitative and quantitative research methods to analyze the development of electronic taxation systems. The research is based on secondary data collected from international organizations such as the OECD, IMF, and World Bank, as well as national statistical sources related to Uzbekistan. A comparative analytical approach is used to examine global trends in digital tax administration and to identify best practices. In addition, a case study method is applied to assess the implementation of electronic taxation in Uzbekistan, focusing on key indicators such as tax revenue growth, digital service adoption, and system efficiency. The study also incorporates a systematic review of existing literature on digital governance, tax compliance, and institutional development. This allows for the integration of theoretical perspectives with empirical findings. The reliability of the results is ensured through cross-country comparisons and consistency with internationally recognized data sources.

Results

The empirical analysis of electronic taxation systems within the context of the digital economy reveals a strong positive relationship between the level of digitalization and tax system efficiency. The findings indicate that countries implementing advanced electronic tax administration systems experience significant improvements in tax revenue collection, compliance rates, and administrative efficiency [5], [6].

First, the analysis shows that the adoption of electronic tax filing and reporting systems has substantially increased tax compliance. According to OECD (2022) data, more than 90% of countries have implemented e-filing systems, resulting in a reduction of compliance costs by approximately 30–50%. This reduction is primarily associated with the simplification of reporting procedures and the automation of tax processes. In addition, digital platforms reduce human interaction, thereby minimizing errors and opportunities for corruption [7].

Second, the results demonstrate that the implementation of real-time reporting systems and electronic invoicing has significantly enhanced tax transparency. In particular, countries that have introduced e-invoicing systems report improved monitoring of value-added tax (VAT) transactions. World Bank (2024) estimates indicate that such systems can increase tax revenues by 2–4% of GDP, while simultaneously reducing the shadow economy by 5–10%. This suggests that digital tools play a crucial role in identifying tax evasion and strengthening fiscal discipline.

Third, the integration of advanced technologies such as artificial intelligence and big data analytics into tax administration has further improved the effectiveness of tax control mechanisms [8]. IMF findings reveal that the use of data analytics allows tax authorities to detect irregularities more efficiently, leading to an increase in revenue collection by 10–20%. These technologies enable predictive analysis, risk assessment, and automated auditing processes, which significantly enhance the performance of tax institutions [9].

The case of Uzbekistan provides a practical illustration of these trends. The full transition to electronic tax reporting has resulted in the digitalization of nearly 100% of tax declarations. The introduction of the “my.soliq.uz” platform, with over 3 million users and more than 50 electronic services, has significantly improved taxpayer accessibility and administrative efficiency. Moreover, the implementation of electronic invoicing systems, with more than 200 million transactions recorded in 2024, has strengthened VAT control and reduced informal economic activities [10].

Furthermore, statistical data indicate that Uzbekistan’s tax revenues reached 274.4 trillion UZS in 2024, reflecting an 18% increase compared to the previous year. This growth can be partially attributed to the expansion of digital tax infrastructure, which has enhanced compliance and reduced

tax evasion. The results confirm that digitalization contributes not only to increased revenue but also to the overall modernization of the tax system.

Overall, the findings suggest that the development of electronic taxation systems is a key driver of efficiency, transparency, and sustainability in modern tax administration. The transition to digital tax systems enables governments to optimize revenue collection processes, reduce administrative burdens, and ensure greater fiscal stability in the digital economy.

Discussion

The findings of this study confirm that the development of electronic taxation systems plays a crucial role in enhancing the efficiency, transparency, and sustainability of tax administration in the digital economy. The results are consistent with several established theoretical frameworks and empirical studies in public finance and digital governance. First, the positive impact of electronic tax systems on tax compliance aligns with the Tax Compliance Theory developed by Allingham and Sandmo [11]. According to this theory, taxpayers' compliance behavior is influenced by the probability of detection and the severity of penalties. The introduction of digital tools such as real-time reporting, e-filing, and automated monitoring significantly increases the probability of detection, thereby reducing incentives for tax evasion. The observed increase in tax revenues and reduction in the shadow economy supports this theoretical perspective.

Second, the results can be interpreted through the lens of Institutional Economics, particularly the work of North, which emphasizes the role of institutions in shaping economic performance [12]. Electronic taxation systems strengthen institutional capacity by improving regulatory quality, reducing administrative discretion, and increasing transparency. In this context, digital tax systems function as institutional innovations that enhance trust between taxpayers and the state, leading to more stable and predictable fiscal outcomes.Third, the findings support the Digital Governance Theory, which highlights the importance of digital technologies in transforming public administration. The integration of electronic platforms, big data analytics, and artificial intelligence into tax systems represents a shift from traditional bureaucratic models to data-driven governance. This transformation improves decision-making processes, enhances service delivery, and reduces operational inefficiencies. The case of Uzbekistan demonstrates how digital platforms such as "my.soliq.uz" can improve accessibility and streamline interactions between taxpayers and authorities [13], [14].

Moreover, the results are consistent with the Technology Acceptance Model (TAM), which explains how users adopt new technologies based on perceived usefulness and ease of use. The widespread adoption of electronic tax services in Uzbekistan suggests that digital tax platforms have achieved a high level of user acceptance. This is reflected in the increasing number of users and the expansion of electronic services, which contribute to improved compliance and administrative efficiency. Another important aspect highlighted by the findings is the synergistic relationship between digitalization and fiscal performance. Electronic taxation not only increases tax revenues but also reduces compliance costs and administrative burdens. This dual effect creates a more efficient tax environment, where both the government and taxpayers benefit. In particular, the reduction of human interaction minimizes corruption risks and increases the reliability of tax administration.

However, despite these positive outcomes, several challenges remain. The effectiveness of electronic tax systems depends on the quality of digital infrastructure, the level of digital literacy among taxpayers, and the cybersecurity capacity of tax authorities. In developing countries, these factors may limit the full potential of digital tax reforms [15]. Therefore, further investments in digital infrastructure, education, and institutional capacity are necessary to ensure the sustainability of electronic taxation systems. In summary, the discussion confirms that electronic taxation systems are not merely technological tools but strategic instruments of economic policy. Their successful implementation requires a comprehensive approach that combines technological innovation, institutional reform, and user-oriented service design. The integration of these elements is essential

for achieving long-term economic stability and improving the overall effectiveness of tax administration in the digital era.

Conclusion

The findings of this study demonstrate that electronic taxation systems play a critical role in improving the effectiveness and sustainability of tax administration in the digital economy. The adoption of digital technologies enhances transparency, reduces administrative costs, and increases tax compliance, leading to higher revenue collection. The case of Uzbekistan illustrates the positive impact of digital tax reforms, including the expansion of electronic services, the implementation of e-invoicing systems, and the full transition to online tax reporting. These measures have contributed to increased efficiency and improved fiscal outcomes.

However, the successful development of electronic taxation systems requires more than technological implementation. It depends on the quality of institutional frameworks, the level of digital infrastructure, and the capacity of both tax authorities and taxpayers to adapt to new systems. Addressing challenges such as cybersecurity risks, digital literacy gaps, and system integration issues is essential for ensuring long-term effectiveness. In conclusion, electronic taxation should be viewed as a strategic tool for economic modernization and fiscal stability. Policymakers should focus on strengthening digital infrastructure, enhancing institutional capacity, and promoting user-friendly services to fully realize the potential of digital tax systems. Future research should explore the application of advanced technologies such as artificial intelligence and blockchain in tax administration to further improve efficiency and compliance.

References

[1] O‘zbekiston Respublikasi Prezidenti, “Yangi O‘zbekiston taraqqiyot strategiyasi (2022–2026),” PF-60-son Farmon, Toshkent, 2022.

[2] O‘zbekiston Respublikasi Prezidenti, “Soliq ma’murchiligini tubdan takomillashtirish chora-tadbirlari to‘g‘risida,” PQ-4389-son Qaror, Toshkent, 2019.

[3] O‘zbekiston Respublikasi Davlat soliq qo‘mitasi, “Soliq tizimini raqamlashtirish bo‘yicha yillik hisobot,” Toshkent, 2024.

[4] O‘zbekiston Respublikasi Statistika agentligi, “Raqamli iqtisodiyot va soliq tushumlari statistikasi,” Toshkent, 2024. [Online]. Available: https://stat.uz

[5] Sh. Shodmonov, B. Xodiyev, *Iqtisodiyot nazariyasi*, Toshkent: Iqtisod-Moliya, 2017.

[6] OECD, *Tax Administration 2022: Comparative Information on OECD and Other Advanced Economies*, Paris, France: OECD Publishing, 2022.

[7] International Monetary Fund, *Digitalization and Tax Administration*, Washington, DC, USA: IMF, 2023.

[8] World Bank, *Digital Government and Tax Administration Reforms*, Washington, DC, USA: World Bank, 2024.

[9] R. Awasthi and M. Engelschalk, *Taxation and the Digital Economy*, Washington, DC, USA: World Bank Group, 2018.

[10] R. Bird and E. Zolt, “Technology and Tax Administration,” *National Tax Journal*, vol. 72, no. 4, pp. 891–915, 2019.

[11] E. Brynjolfsson and A. McAfee, *Machine, Platform, Crowd*, Cambridge, MA, USA: MIT Press, 2017.

[12] T. Davenport and R. Ronanki, “Artificial Intelligence for the Real World,” *Harvard Business Review*, vol. 96, no. 1, pp. 108–116, 2018.

[13] M. Keen and J. Slemrod, *Rebellion, Rascals, and Revenue: Tax Administration in Modern Economies*, Princeton, NJ, USA: Princeton University Press, 2021.

[14] UNCTAD, *Digital Economy Report*, Geneva, Switzerland, 2022.

[15] European Commission, *Digital Taxation Trends in the EU*, Brussels, Belgium, 2023.