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AUTOMATION OF TAX REPORTING PROCESSES: OPPORTUNITIES AND CHALLENGES

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Abstrak

Research Objectives: This study aims to analyze the opportunities and challenges of automating tax reporting processes, focusing on efficiency, transparency, and compliance improvement. 2. Design/Methodology/Approach: The research is based on a mixed-method approach combining statistical analysis of digital tax systems (2021–2024) and qualitative evaluation of institutional reforms. 3. Research Findings: The findings indicate that automation significantly reduces administrative costs, improves accuracy, and enhances tax compliance. However, challenges such as technical infrastructure gaps and cybersecurity risks remain. 4. Theoretical Contributions/Originality: The study integrates digital transformation theory with tax administration, providing a comprehensive framework for automation analysis. 5. Implications for Practitioners/Policy: The results suggest expanding digital platforms, improving IT infrastructure, and strengthening legal frameworks. 6. Limitations/Research Implications: The study is limited by data availability and recommends further empirical and econometric research.

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INTRODUCTION

The rapid development of digital technologies has significantly transformed public administration systems, including tax administration. One of the most important aspects of this transformation is the automation of tax reporting processes, which aims to increase efficiency, reduce human error, and improve compliance [1], [2]. In traditional tax systems, reporting processes are often time-consuming, complex, and prone to inaccuracies. Manual data entry, paper-based documentation, and fragmented information systems create inefficiencies and increase the likelihood of tax evasion. These challenges have encouraged governments to adopt automated solutions. Automation in tax reporting involves the use of digital platforms, electronic filing systems, artificial intelligence, and data analytics to streamline tax processes [3]. These technologies enable real-time monitoring, reduce compliance costs, and improve transparency. In Uzbekistan, tax system digitalization has become a key priority in recent years. The introduction of electronic tax filing, online cash registers, and integrated information systems has significantly improved tax administration efficiency [4], [5], [6]. However, despite these advancements, several challenges remain. These include technical limitations, cybersecurity risks, and unequal access to digital infrastructure. The objective of this study is to analyze the opportunities and challenges of automating tax reporting processes and evaluate their impact on economic efficiency and compliance.

METHODOLOGY

This study uses a mixed-method approach combining quantitative and qualitative analysis. Quantitative data from 2021–2024 are analyzed to assess the impact of automation on tax reporting efficiency, compliance rates, and administrative costs. Trend analysis is used to evaluate changes over time.

Qualitative analysis focuses on institutional reforms, legal frameworks, and technological developments. Policy documents and international reports are examined to identify key factors influencing automation. Additionally, comparative analysis is used to evaluate Uzbekistan's experience relative to international practices.

RESULTS

Description before Table

The following table presents the impact of automation on key tax administration indicators between 2021 and 2024.

Table 1. Impact of Tax Reporting Automation (2021–2024)

Indicator	2021	2022	2023	2024
Electronic filings (%)	65%	75%	85%	92%
Processing time (days)	5.2	3.8	2.6	1.9

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Indicator	2021	2022	2023	2024
Compliance rate (%)	70%	78%	84%	89%
Administrative cost reduction (%)	—	10%	18%	25%

Source: Author's calculations based on tax administration reports (2024).

The data presented in Table 1 provide clear evidence of the significant impact of automation on tax reporting processes between 2021 and 2024 [7], [8], [9]. The results indicate substantial improvements across all key performance indicators, including electronic filing rates, processing time, compliance levels, and administrative cost efficiency. First, the share of electronic filings increased dramatically from 65% in 2021 to 92% in 2024. This represents a 27 percentage point increase over a four-year period, highlighting the rapid adoption of digital tax reporting systems [10]. The most notable growth occurred between 2022 and 2023, when electronic filing rose from 75% to 85%. This suggests that the implementation of digital platforms and user-friendly reporting systems significantly encouraged taxpayers to transition from manual to automated processes [11]. Second, the average processing time for tax reports decreased substantially, from 5.2 days in 2021 to 1.9 days in 2024. This reduction of approximately 63% demonstrates the efficiency gains achieved through automation. The most significant improvement was observed between 2021 and 2022, when processing time dropped from 5.2 to 3.8 days. This indicates that early-stage digitalization had an immediate and strong impact on operational efficiency. Third, tax compliance rates showed consistent improvement, increasing from 70% in 2021 to 89% in 2024. This 19 percentage point growth reflects the effectiveness of automated systems in enhancing transparency and reducing opportunities for tax evasion. The steady year-by-year increase suggests that compliance improvements are sustainable and directly linked to the expansion of digital tax reporting [12], [13]. Fourth, administrative cost reductions became increasingly significant over time. While no measurable reduction was recorded in 2021, cost savings reached 10% in 2022, 18% in 2023, and 25% in 2024. This trend indicates that the financial benefits of automation are cumulative, with greater efficiency gains realized as digital systems become more integrated and widely adopted. Overall, the results confirm that automation of tax reporting processes leads to substantial improvements in efficiency, compliance, and cost reduction [14]. The consistent positive trends across all indicators demonstrate that digital transformation is a key driver of modern tax administration performance.

DISCUSSION

The results highlight the transformative impact of automation on tax reporting processes. The increase in electronic filings and reduction in processing time indicate significant improvements in efficiency. From a theoretical perspective, automation aligns with digital governance and e-government frameworks. It enhances transparency and reduces opportunities for corruption. However, challenges remain. One major issue is the digital divide. Not all taxpayers have equal access to digital technologies, which may create inequality. Cybersecurity risks are another concern [15]. As tax systems become more digital, they become more vulnerable to cyber threats. Additionally, the implementation of automated systems requires significant investment in infrastructure and training. Overall, the discussion suggests that while automation offers substantial benefits, it must be implemented carefully to address potential risks.

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CONCLUSION

This study demonstrates that automation of tax reporting processes significantly improves efficiency, compliance, and transparency. The results show that digital systems reduce administrative costs and processing time while increasing accuracy. However, challenges such as infrastructure gaps, cybersecurity risks, and digital inequality must be addressed. Policymakers should focus on improving digital infrastructure and strengthening legal frameworks. In conclusion, automation is a key component of modern tax systems and plays a crucial role in improving tax administration and economic efficiency.

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