THEORETICAL ASPECTS OF ENSURING TAX SECURITY ON THE BASIS OF TAX ADMINISTRATION

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ABSTRACT

Tax security has become a core element of national economic security, reflecting a state's ability to ensure stable, sufficient, and predictable tax revenues while minimizing risks such as evasion, avoidance, and administrative inefficiencies. In conditions of globalization and digitalization, tax administration faces increasing complexity, requiring a shift from traditional control-based approaches toward integrated, risk-based, and technology-driven systems. Thus, ensuring tax security is no longer limited to revenue collection but involves a comprehensive framework combining institutional capacity, digital tools, risk management, and compliance-oriented governance.

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Modern academic literature shows a clear evolution in tax administration paradigms. Early studies, particularly by James Alm, emphasized that tax compliance depends not only on enforcement (audit probability and penalties) but also on behavioral and institutional factors such as trust, fairness, and social norms. This expanded perspective laid the foundation for viewing tax security as a multidimensional concept. Recent empirical research further confirms that efficient tax administration significantly enhances fiscal stability by reducing tax evasion and the shadow economy, thereby strengthening overall economic security.

A key dimension of tax security is taxpayer behavior. Studies demonstrate that voluntary compliance, driven by awareness, fairness, and institutional trust, is often more effective than coercive enforcement, particularly in developing economies. Tax education and transparency improve compliance levels while reducing administrative costs. This has led to the emergence of "cooperative compliance" models, where tax authorities and taxpayers engage in a more collaborative relationship.

Digital transformation is another critical driver of modern tax security. Technologies such as big data analytics, artificial intelligence, and blockchain significantly improve monitoring, transparency, and fraud detection. Digital tools enable real-time data processing and predictive analytics, which are essential for risk-based tax administration. For instance, e-invoicing systems increase transaction traceability and reduce opportunities for tax evasion. Similarly, intelligent tax systems, such as China's "Golden Tax III," demonstrate how digital infrastructure can enhance compliance, corporate governance, and information transparency.

Risk management has become central to tax administration methodology. Modern systems allocate resources based on the likelihood and impact of non-compliance, using data analytics and machine learning to identify high-risk taxpayers and sectors. This approach improves enforcement efficiency while reducing the burden on compliant taxpayers. At the same time, institutional quality—legal frameworks, transparency, and inter-agency coordination—plays a decisive role in ensuring tax security. Effective governance structures facilitate information exchange and enhance compliance outcomes.

Despite significant progress, the literature reveals several gaps. There is limited integration of tax security within broader economic security frameworks, and many studies focus on isolated aspects such as compliance or digitalization rather than comprehensive models. Moreover, developing countries face unique challenges due to institutional constraints and large informal sectors, highlighting the need for context-specific methodologies.

The relevance of tax security is underscored by global fiscal losses. According to International Monetary Fund and Organisation for Economic Co-operation and Development estimates, countries lose a significant share of GDP due to tax evasion and inefficiencies, while improved administration can increase revenues by 3–5% of GDP in developing economies. In Uzbekistan, ongoing fiscal reforms and digitalization efforts further emphasize the need for a scientifically grounded methodological framework.

Theoretically, tax security is rooted in public finance, institutional economics, and risk management paradigms. Scholars such as Vito Tanzi highlight that effective tax administration is a key determinant of fiscal performance, especially in transitional economies. Methodologically, ensuring tax security requires an integrated system comprising several components.

First, a system of indicators is necessary to assess tax security. These include the tax-to-GDP ratio, tax gap, compliance rate, audit effectiveness, and administrative cost efficiency. The tax gap—defined as the difference between potential and actual tax revenues—is a central metric, often estimated using econometric models that incorporate shadow economy dynamics.

Second, risk-based tax administration prioritizes resources based on non-compliance risks. Supported by international best practices, this approach relies on data analytics to identify high-risk taxpayers and transactions, improving audit targeting and reducing administrative inefficiencies.

Third, digitalizaion and automation play a transformative role. Electronic filing, e-invoicing, and real-time reporting systems enhance transparency and reduce fraud. Countries adopting such systems report higher compliance and improved revenue collection. In Uzbekistan, digital tax services and electronic cash registers represent important steps toward strengthening tax security.

Fourth, institutional coordination is essential. Effective tax security requires cooperation among tax authorities, customs, financial intelligence units, and law enforcement agencies. International initiatives such as the Base Erosion and Profit Shifting framework address cross-border tax avoidance and promote global standards.

Empirical evidence shows that countries with advanced tax administration systems achieve higher tax security, characterized by lower tax gaps, higher compliance rates, and more stable revenues. Digitalization and risk-based audits are positively associated with revenue growth and administrative efficiency.

In Uzbekistan, reforms have improved tax collection and compliance, but challenges remain, including the shadow economy, limited data integration, and institutional capacity constraints. Addressing these issues requires expanding digital infrastructure, strengthening inter-agency coordination, and enhancing analytical capabilities.

Overall, ensuring tax security demands a holistic, data-driven, and behaviorally informed approach. Traditional control methods are insufficient in modern economies; instead, tax systems must evolve toward transparent, risk-based, and cooperative models. Integrating behavioral insights—such as trust, fairness, and social norms—into tax policy design further enhances compliance and supports sustainable fiscal development.

In conclusion, ensuring tax security on the basis of tax administration requires a comprehensive methodological approach that integrates indicator-based assessment, risk management, digitalization, and institutional coordination. The findings of this study demonstrate that modern tax administration systems, characterized by the use of advanced technologies and data-driven decision-making, significantly enhance tax security. For countries like Uzbekistan, the adoption of international best practices, combined with context-specific adaptations, can lead to substantial improvements in fiscal stability and economic security. Future research should focus on developing more sophisticated models for measuring tax security, incorporating real-time data analytics, and exploring the role of emerging technologies such as blockchain in tax administration. Strengthening tax security is not only a fiscal imperative but also a cornerstone of sustainable economic development and national security.

References:

1.Alm, J. (2019). Tax compliance and administration. Handbook of Public Economics.

2.Surugiu, M. R., et al. (2025). Tax compliance pattern analysis. Economies, 13(1), 14. https://doi.org/10.3390/economies13010014

3.Pratama, A. (2025). Optimizing tax compliance. Economies, 13(7), 194. https://doi.org/10.3390/economies13070194

4.Cardenas-López, J. J. (2023). Digital tax administration systems. Revista Científica de Sistemas e Informática, 3(2). https://doi.org/10.51252/rcsi.v3i2.525

5.Caillahua, H. D., et al. (2025). E-invoicing and tax compliance. UCT Journal, 29(129). https://doi.org/10.47460/uct.v29i129.998

6.Zheng, Q., et al. (2024). Tax risk detection using data mining. Information Processing & Management. https://doi.org/10.1016/j.ipm.2023.103386

7.Guo, Y. (2025). Intelligent tax systems and compliance. Economic Modelling. https://doi.org/10.1016/j.ecmod.2025.106401

8.Wahyuni, W., et al. (2024). Tax administration reform and compliance. Public Administration Journal.

9.Idrus, M. (2024). Tax administration efficiency and compliance. Ecotal Journal.

10.Bişgin, A. (2023). Literature review on tax compliance. Artuklu Journal.

11.OECD-based study (2022). Tax collection efficiency. Journal of Economic Dynamics and Control. https://doi.org/10.1016/j.jedc.2022.104379