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Enhancing Tax Culture As An Institutional Mechanism For Reducing The Shadow Economy In Uzbekistan

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Abstract: This article examines the theoretical and practical aspects of developing tax culture as a key factor in reducing the shadow economy in Uzbekistan. The study analyzes the role of tax culture in promoting voluntary tax compliance, strengthening tax discipline, and reducing informal economic activities. It also evaluates the current state of tax culture in Uzbekistan and identifies the main factors influencing its development. Based on international best practices, the paper proposes scientific and practical recommendations aimed at improving tax literacy, expanding digital tax services, enhancing the transparency of public institutions, and strengthening tax administration to reduce the scale of the shadow economy.

Keywords: shadow economy, tax culture, tax literacy, tax compliance, voluntary tax compliance, tax administration, digitalization, fiscal policy, tax reforms.

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Introduction

In the context of globalization, the shadow economy has become one of the most significant socio-economic challenges affecting nearly all countries by undermining economic growth, fiscal sustainability, and the efficiency of public finance. A high level of shadow economic activity reduces government budget revenues, distorts fair market competition, weakens investment attractiveness, and leads to the inefficient allocation of economic resources. Consequently, reducing the scale of the shadow economy has become one of the key priorities of contemporary economic policy.

International experience demonstrates that the reduction of the shadow economy cannot be achieved solely through stricter enforcement measures or improvements in tax administration. Equally important is strengthening taxpayers' willingness to comply voluntarily with their tax obligations. In this regard, tax culture represents a fundamental institutional factor that reflects the extent to which citizens and business entities perceive taxation as an essential financial instrument for supporting public welfare and sustainable economic development. A higher level of tax culture reinforces tax discipline, increases voluntary tax compliance, reduces tax evasion, and ultimately contributes to narrowing the scope of the shadow economy.

In recent years, Uzbekistan has implemented a series of comprehensive reforms aimed at reducing the shadow economy and improving the efficiency of the tax system. These reforms include the digitalization of tax administration, the expansion of electronic tax services, the introduction of online cash register systems, electronic invoices, and integrated fiscal information exchange platforms. Collectively, these measures have enhanced the transparency of economic transactions and broadened the tax base. Nevertheless, practical experience indicates that administrative and technological reforms alone are insufficient to ensure a sustainable reduction in the shadow economy. The effectiveness of these measures largely depends on taxpayers' legal awareness, trust in public institutions, tax literacy, and the overall level of tax culture.

From this perspective, examining tax culture as a key institutional mechanism for reducing the shadow economy is of considerable scientific and practical importance. Although numerous studies in Uzbekistan have focused on improving tax administration, limited attention has been devoted to comprehensively investigating the mechanisms through which tax culture influences the shadow economy, the interrelationship between these two phenomena, and the potential of tax culture as an instrument for mitigating informal economic activities. This research gap highlights the need for further scholarly investigation in this field.

Accordingly, this study aims to evaluate the role of tax culture in reducing the shadow economy in Uzbekistan from both theoretical and practical perspectives. It further seeks to identify the factors influencing the development of tax culture and to formulate scientifically grounded recommendations for strengthening tax culture as an effective institutional mechanism for reducing the scale of the shadow economy.

Research on the shadow economy and tax culture has increasingly evolved beyond the boundaries of conventional economic theory by incorporating institutional, sociological, and behavioral economics perspectives. Recent studies suggest that taxpayers' compliance decisions are determined not only by economic incentives but also by social norms, trust in public institutions, legal awareness, and civic responsibility [1].

The classical economic model explains tax compliance as a rational decision in which taxpayers compare the expected benefits of tax evasion with the probability of detection and the potential costs of penalties. Although this framework has provided the theoretical foundation for tax compliance research, it has been unable to fully explain why many countries maintain relatively high levels of tax compliance despite limited enforcement and audit capacity [2].

To overcome these limitations, subsequent studies emphasized the importance of psychological and social determinants of taxpayer behavior. In particular, the *Slippery Slope Framework* proposes that the effectiveness of a tax system depends on two complementary dimensions: the power of tax authorities and taxpayers' trust in public institutions. Sustainable voluntary tax compliance can only be achieved when these two elements are simultaneously strengthened [3].

Cross-country empirical evidence further demonstrates that higher levels of public trust are positively associated with stronger tax morale and greater voluntary tax compliance. These findings indicate that improving the quality of public services, ensuring fairness in taxation, and maintaining transparent communication between governments and taxpayers are as important as enforcement measures in promoting tax compliance.

Modern tax administration has also been recognized as a critical institutional determinant of economic development. The adoption of electronic tax filing systems, real-time information exchange, digital reporting mechanisms, and risk-based audit systems significantly improves tax administration efficiency while reducing opportunities for informal economic activities [4].

Considerable progress has also been made in measuring the size of the shadow economy. Using the Multiple Indicators Multiple Causes (MIMIC) model, empirical evidence from more than 150 countries demonstrates that government effectiveness, corruption control, balanced tax burdens, and institutional quality are among the most influential determinants of informal economic activity (Medina & Schneider, 2018).

Recent studies further argue that punitive approaches alone are insufficient to reduce the shadow economy. Sustainable formalization requires governments to establish favorable institutional conditions for businesses, optimize tax burdens, simplify administrative procedures, and strengthen public confidence in government institutions [5].

International organizations have likewise emphasized the institutional dimension of tax compliance. The Organisation for Economic Co-operation and Development (OECD) identifies tax morale as a fundamental component of the social contract between governments and society. Transparent public financial management, efficient budget expenditures, reduced corruption, digital public services, and greater transparency in tax administration significantly strengthen taxpayers' willingness to comply voluntarily with tax obligations [6].

Similarly, the International Monetary Fund (IMF) emphasizes that reducing the shadow

economy requires not only sound fiscal policy but also comprehensive institutional reforms. Improvements in governance quality, anti-corruption policies, and the implementation of digital fiscal management systems contribute substantially to increasing public revenues and reducing informal economic activities [7].

In Uzbekistan, studies on reducing the shadow economy and strengthening tax culture have gained increasing attention in recent years. Existing research has mainly focused on tax reforms, digital transformation of tax administration, the formalization of business activities, and the creation of a more favorable fiscal environment for entrepreneurship.

Recent domestic studies indicate that simplifying tax administration, expanding electronic tax services, and digitalizing tax control mechanisms facilitate the legalization of economic activities. However, they also conclude that administrative measures alone cannot ensure sustainable reductions in the shadow economy without strengthening tax culture and public trust in government institution [8].

Research on Uzbekistan's tax system further suggests that stable tax policies, reasonable tax rates, and simplified taxation mechanisms positively influence business formalization and reduce informal economic activities by improving the institutional environment for taxpayer [9].

Studies devoted to small business development demonstrate that preferential taxation, financial incentives, and supportive fiscal policies encourage entrepreneurs to operate within the formal economy, thereby contributing to the reduction of the shadow economy [10].

The digital transformation of tax administration has also attracted considerable scholarly attention. The implementation of digital technologies, electronic tax declarations, automated risk assessment systems, and data-driven tax administration has been found to improve administrative efficiency, strengthen public trust in the tax system, and increase voluntary tax compliance [11].

Furthermore, digital technologies and innovative fiscal instruments improve the transparency of economic transactions while simultaneously stimulating investment activity. Consequently, digitalization has become one of the most effective contemporary instruments for strengthening tax discipline and reducing informal economic activities [12].

Despite these valuable contributions, domestic research has primarily concentrated on tax administration reforms, fiscal policy modernization, digital technologies, and tax burden optimization. Comparatively limited attention has been devoted to investigating tax culture as a multidimensional institutional phenomenon encompassing taxpayers' behavior, tax literacy, civic responsibility, and trust in public institutions through integrated economic and sociological approaches.

Recent reforms in Uzbekistan—including electronic invoicing, online cash register systems, QR-code fiscal receipts, the Soliq mobile application, electronic auditing, and automated risk assessment systems—have substantially modernized tax administration. These reforms are increasingly regarded as important institutional instruments for strengthening public confidence in the tax system, encouraging voluntary tax compliance, and reducing the shadow economy.

Overall, the international literature primarily examines tax culture through the concepts of tax morale, voluntary tax compliance, behavioral taxation, and institutional trust, whereas domestic studies have largely focused on tax administration reforms and fiscal modernization. Comprehensive econometric research investigating the causal relationships among tax culture, trust in public institutions, digital fiscal services, and the shadow economy in Uzbekistan remains limited. Addressing this research gap constitutes the principal scientific contribution and originality of the present study.

Research Methodology

This study investigates the role of tax culture in reducing the shadow economy in Uzbekistan by adopting a systematic research approach. The theoretical foundation of the study is based on the scholarly literature on the shadow economy, tax culture, tax compliance, and tax administration, drawing upon both national and international academic publications. In addition, relevant legal and regulatory documents, as well as

official statistical data, were utilized to provide an empirical basis for the analysis.

The research employs a combination of qualitative and analytical methods, including systematic analysis, comparative analysis, statistical analysis, induction, deduction, and logical generalization. These methods were applied to examine the relationship between tax culture and the shadow economy, identify the key institutional factors influencing voluntary tax compliance, and evaluate the effectiveness of existing tax administration reforms.

Furthermore, the integrated methodological framework made it possible to assess the role of tax culture as an institutional mechanism for reducing informal economic activity and to formulate scientifically grounded policy recommendations aimed at strengthening tax compliance, enhancing public trust in government institutions, and promoting the sustainable reduction of the shadow economy in Uzbekistan.

Analysis and Results

The determinants of the shadow economy encompass economic, fiscal, institutional, and social dimensions, among which the level of tax culture plays a pivotal role. Where tax culture is insufficiently developed, voluntary tax compliance tends to decline, tax evasion becomes more prevalent, and informal economic activities expand. A complex tax system, excessive administrative procedures, insufficient employment opportunities, and weak enforcement mechanisms in certain regions create favorable conditions for the growth of the shadow economy. Under such circumstances, some business entities prefer to operate informally in order to reduce their tax burden or circumvent regulatory requirements.

Another important factor contributing to the expansion of the shadow economy is the relatively low level of financial and tax literacy among the population, together with insufficient public trust in government institutions and the tax system. Weak tax culture encourages some entrepreneurs to conceal income rather than maintain transparent accounting records and fully comply with their tax obligations. This tendency is particularly evident in agriculture, service industries, and small-scale retail trade, where supervisory mechanisms are comparatively less effective. Therefore, reducing the shadow economy requires not only strengthening tax enforcement but also enhancing tax culture and improving taxpayers' financial and tax literacy [13].

Fiscal factors also play a significant role in shaping the shadow economy in Uzbekistan. Complicated tax reporting procedures, the persistence of bureaucratic practices within tax administration, and the limited accessibility of the tax system for different categories of taxpayers increase the costs associated with operating in the formal economy. These conditions contribute to negative perceptions of the tax system, weaken tax culture, and encourage some economic agents to regard informal economic activities as a more economically advantageous alternative.

Furthermore, the unequal distribution of tax incentives, selective implementation of tax inspections, and insufficient transparency in the activities of fiscal authorities undermine taxpayers' confidence in the tax system. As a consequence, tax discipline weakens, income concealment becomes more widespread, cash-based transactions increase, and tax evasion becomes more frequent. These findings indicate that strengthening tax culture should not be viewed solely as a means of increasing taxpayers' responsibility. Rather, it represents an important institutional mechanism for fostering mutual trust between taxpayers and public authorities, thereby promoting voluntary tax compliance and reducing incentives for informal economic activity.

Institutional and administrative factors also exert a direct influence on the development of tax culture. The complexity of the legal and regulatory framework, excessive bureaucracy in licensing and permitting procedures, the quality of public services, and the transparency of public administration largely determine the degree of trust that economic agents place in formal institutions. When these institutional conditions are strengthened, tax culture improves, voluntary tax compliance increases, and the scale of the shadow economy declines. Consequently, reducing the shadow economy in Uzbekistan requires not only continuous improvements in tax administration but also the systematic development of tax culture as an integral component of broader institutional

reform [14]s.

Administrative and institutional factors also play a crucial role in the expansion of the shadow economy. Selective enforcement practices by regulatory authorities, a high degree of discretionary decision-making, corruption risks, and insufficient transparency in the provision of public services weaken taxpayers' confidence in the tax system. As a consequence, economic agents become less motivated to comply voluntarily with their tax obligations, leading to a decline in tax culture. This problem is particularly evident among small businesses and service-sector enterprises, where inconsistent regulatory oversight and uneven administrative burdens encourage some entrepreneurs to perceive informal economic activity as a more economically viable alternative.

Labor market conditions also exert a significant influence on the development of the shadow economy. The incomplete formalization of employment relationships, the high prevalence of informal employment, the costs associated with formal labor contracts, and persistent challenges related to youth employment encourage economic agents to operate outside the formal sector. Under these circumstances, informal employment not only narrows the tax base but also weakens tax discipline and reduces individuals' sense of social responsibility. Therefore, expanding formal employment opportunities while simultaneously strengthening tax culture constitutes an important strategy for reducing the shadow economy [15].

High levels of labor migration likewise have an indirect impact on tax culture. The widespread prevalence of seasonal and temporary employment, the extensive use of informal labor within family-owned businesses, and the incomplete formalization of employment relationships reduce contributions to pension and social insurance systems. Consequently, public awareness of the social significance of taxes and mandatory social contributions declines, thereby creating conditions that facilitate the persistence and reproduction of informal economic activities.

Economic and market-related factors are also closely associated with the development of tax culture. High costs of formal business operations, complicated licensing and permitting procedures, limited access to financial resources, and the predominance of cash transactions encourage some business entities to engage in informal economic activities. Furthermore, underdeveloped market infrastructure and the limited adoption of digital payment systems further reinforce incentives to operate outside the formal economy [16].

At the same time, insufficient market competition, the persistence of monopolistic structures in certain industries, and regional disparities in the investment climate reduce the attractiveness of formal economic activity. Under such conditions, strengthening tax culture, simplifying tax administration, improving the transparency of public services, and enhancing taxpayers' trust in government institutions represent some of the most important institutional strategies for reducing the shadow economy.

Socio-psychological factors constitute another important determinant of the expansion of the shadow economy. In particular, insufficient levels of tax culture and tax literacy directly influence taxpayers' attitudes toward fulfilling their tax obligations. Low levels of trust in public institutions, limited public awareness regarding the transparent use of budgetary resources, and the failure to perceive tax payment as a civic responsibility encourage some economic agents to regard income concealment as an acceptable economic practice. Consequently, the psychological barriers to participating in informal economic activities diminish, creating a more favorable environment for the continued expansion of the shadow economy.

The widespread prevalence of informal labor relations, cash-based transactions, and unregistered business operations within family-owned enterprises and small businesses is also closely associated with a low level of tax culture. Over time, these practices become embedded as customary patterns of economic behavior, thereby constraining the development of a culture of formal entrepreneurship and regulatory compliance. Consequently, reducing the shadow economy requires not only strengthening enforcement mechanisms but also improving tax culture and enhancing the financial literacy of the population [17].

Regional and demographic factors likewise contribute to the development of the shadow

economy. Insufficient formal employment opportunities in certain regions, disparities in investment attractiveness and market infrastructure, as well as high levels of labor migration and seasonal employment, encourage the expansion of informal economic activities. Under these circumstances, promoting tax culture at the regional level, encouraging formal employment, and expanding access to digital tax services constitute important policy instruments for reducing the share of the shadow economy.

From a methodological perspective, it is essential to distinguish between the concepts of the *informal economy*, the *non-observed economy*, and the *shadow economy* when analyzing informal economic activities. The **informal economy** refers to economic activities undertaken by households or individuals without official registration or legal recognition. The **non-observed economy** encompasses economic activities that are not fully captured by official statistical systems and therefore require indirect estimation methods. In contrast, the **shadow economy** comprises economic activities that are legally permissible in nature but are deliberately concealed from public authorities in order to evade taxation, avoid regulatory obligations, or circumvent other legal requirements. Distinguishing among these concepts provides a more robust conceptual framework for analyzing the determinants of informal economic activity and for designing effective policy measures aimed at reducing the shadow economy.

In this study, the assessment of the shadow economy was conducted based on the methodological approaches outlined in the *Methodological Regulation on Statistical Assessment of the Non-Observed (Shadow) Economy* approved by the National Statistics Committee of the Republic of Uzbekistan. This methodological framework enables a comprehensive evaluation of the scale of the shadow economy and its impact on public budget revenues, employment, and overall economic development.

The application of this methodology in combination with tax culture indicators provides an opportunity to conduct a deeper analysis of the institutional mechanisms underlying the reduction of informal economic activities. Such an integrated approach allows for a more comprehensive understanding of how taxpayers' attitudes, voluntary compliance behavior, and institutional trust influence the formalization of economic relations and the reduction of the shadow economy.

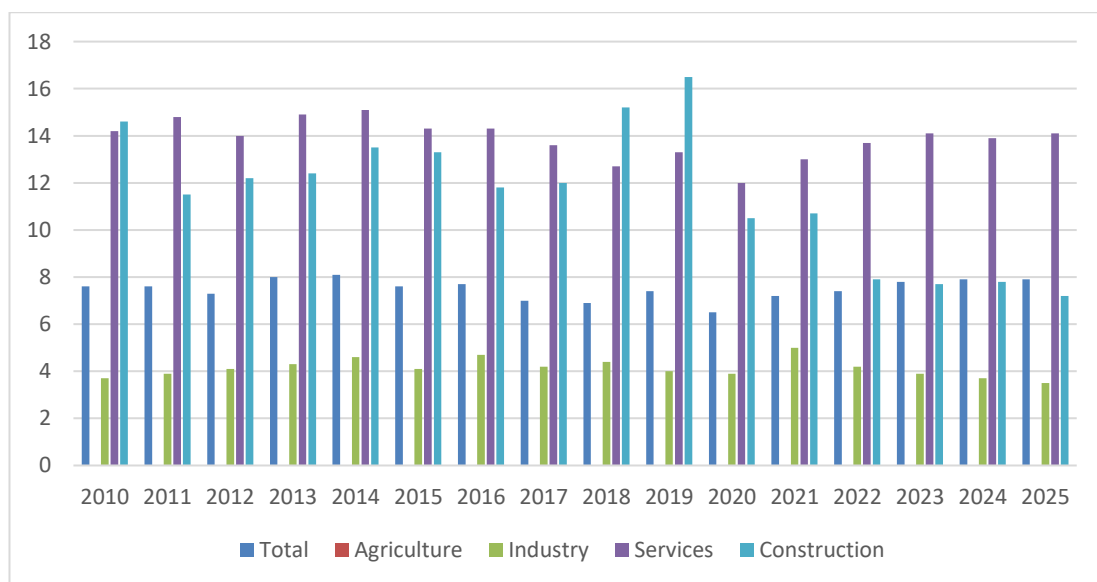


Figure 1. Changes in the Sectoral Structure of Value Added in Uzbekistan, 2010–2025 (%)

Based on this methodological approach, a comprehensive analysis was conducted of the main components of the non-observed economy, including the activities of unregistered economic entities, informal employment, cases of tax evasion, and unreported economic activities of households. In addition, the interrelationship between these factors and the level of tax culture was assessed, with particular attention paid to the impact of taxpayers' voluntary tax compliance, trust in public institutions, and tax literacy on the scale of the shadow economy.

The findings demonstrate that reducing the shadow economy cannot be achieved solely through strengthening administrative control mechanisms. Instead, more sustainable results can be achieved through the development of tax culture, simplification of tax administration procedures, expansion of digital tax services, and strengthening mutual trust between the state and taxpayers. This methodological approach not only ensures the reliability of the research findings but also serves as a scientific basis for developing evidence-based recommendations and proposals aimed at reducing the scale of the shadow economy in Uzbekistan.

The share of the shadow economy in Uzbekistan's gross domestic product (GDP) demonstrates significant differences across economic sectors. In particular, the relatively high level of the shadow economy in the services and construction sectors can be explained by the predominance of small businesses and individual entrepreneurs, the widespread use of cash-based transactions, and the insufficient development of tax culture within these sectors. These factors contribute to lower levels of voluntary tax compliance, reduced state budget revenues, and distortions in the competitive environment.

The persistent high share of the shadow economy in the services sector over a long period indicates a considerable volume of unregistered economic activities within this area. This situation highlights the necessity not only to improve tax administration mechanisms but also to enhance tax culture among service providers, increase tax literacy, and expand the implementation of digital payment systems.

In the construction sector, the decline in the share of the shadow economy from 14.6% in 2010 to 10% in 2024 reflects the effectiveness of institutional reforms, improved control mechanisms, and measures aimed at formalizing economic activities in this sector. However, the continued relatively high level of this indicator suggests the need for additional measures to strengthen tax discipline and promote tax culture among construction sector participants.

In the industrial sector, the relatively low and stable share of the shadow economy can be attributed to greater transparency of financial transactions, more effective monitoring systems, and a higher proportion of formally registered economic activities. Furthermore, aggregated indicators for agriculture, industry, and construction demonstrate that the shadow economy continues to represent a significant share of economic activity. This situation confirms the need to further improve institutional mechanisms aimed at developing tax culture in high-risk sectors such as services and construction, simplifying tax administration, expanding digital monitoring tools, and encouraging voluntary tax compliance among taxpayers.

The analysis of the dynamics of the shadow economy in Uzbekistan indicates that this process is closely associated with macroeconomic conditions, fiscal reforms, and the level of tax culture. According to the results of the analysis, the growth rate of the shadow economy was relatively high during 2011–2013, reaching its maximum level of 19.08% in 2013. This situation can be explained not only by the expansion of economic activity but also by shortcomings in tax administration, insufficient development of mechanisms for formalizing entrepreneurial activities, and the relatively low level of tax culture. As a result, some economic entities preferred to operate in informal forms.

During 2014–2017, the growth rate of the shadow economy demonstrated a consistent decline. Reforms aimed at improving tax administration, strengthening monitoring mechanisms, and formalizing economic activities produced certain positive results during this period. However, it became evident that administrative measures alone are insufficient to ensure a sustainable reduction in the shadow economy. In this process, the development of taxpayers' voluntary compliance and improvement of tax culture play a crucial role.

In 2020, as a result of the decline in economic activity caused by the COVID-19 pandemic, the growth rate of the shadow economy decreased significantly. During this period, economic restrictions, the wider application of digital monitoring instruments, and strengthened government support measures for businesses directly influenced the dynamics of the shadow economy. However, this decline was largely driven by temporary factors associated with the pandemic.

With the recovery of economic activity in 2021, the growth rate of the shadow economy increased to 20.72%, while in 2022 and 2023 it declined to 13.33% and 9.19%, respectively. This trend indicates that reforms aimed at simplifying the tax system, digitalizing tax administration, and legalizing economic activities have generated certain positive outcomes. At the same time, further reduction of the shadow economy requires not only the improvement of control mechanisms but also the enhancement of tax culture and tax literacy among the population, strengthening public trust in state institutions, and expanding institutional mechanisms aimed at encouraging voluntary tax payments.

The variation in the share of the shadow economy within the structure of Gross Regional Product (GRP) across different regions reflects not only differences in the level of economic development but also disparities in tax culture, tax administration efficiency, and the degree of formalization of economic activities. A high share of the shadow economy indicates widespread tax evasion practices, informal employment, and insufficiently developed systems of official accounting and reporting. During 2017–2024, this indicator varied across regions from an average of 2.7% to 15.2%, demonstrating significant regional disparities.

The analysis shows that regions with the highest share of the shadow economy, including the Republic of Karakalpakstan (13.4%), Namangan region (12.1%), and Fergana region (11.3%), require additional measures aimed at developing tax culture, expanding formal employment, and improving tax literacy. In particular, the increase in the indicator in Namangan region from 9.7% in 2017 to 15.2% in 2024 indicates that a considerable share of economic activity continues to operate within the informal sector. Similarly, the growth of the shadow economy share in Fergana region from 10.4% to 13.1% highlights the necessity of strengthening tax discipline and encouraging voluntary tax compliance among taxpayers.

In contrast, the consistently low share of the shadow economy in Navoi region, remaining at approximately 2–3% throughout the analyzed period, can be explained by the dominance of large industrial enterprises, a high level of formalization of economic transactions, and relatively effective tax monitoring mechanisms. Likewise, the lower-than-average share of the shadow economy in Jizzakh and Tashkent regions indicates a comparatively higher proportion of formally registered economic activities.

During the pandemic period (2020), the reduction in the share of the shadow economy in most regions was associated with a temporary decline in economic activity and strengthened state monitoring mechanisms. However, during 2021–2024, as economic activity recovered, the scale of informal activities increased again in some regions. This situation demonstrates that strengthening control measures alone is insufficient for reducing the shadow economy. Instead, it requires region-specific approaches aimed at developing tax culture, increasing taxpayers' trust in public institutions, expanding the use of digital tax services, and encouraging voluntary tax compliance.

In 2022, Uzbekistan introduced a tax cashback mechanism amounting to 1% of the purchase value, alongside digital tax administration instruments such as online cash register systems, electronic invoices, digital product labeling, and other technological solutions. The primary objective of this mechanism was to develop consumers' habit of requesting fiscal receipts, strengthen public oversight, and reduce the share of the shadow economy in the retail trade sector. As a result, citizens' activity in registering fiscal receipts increased significantly, the database of real-time information received by tax authorities expanded, and the digitalization process of tax administration accelerated. At the same time, it is necessary to regularly assess the fiscal effectiveness of this mechanism. The analysis indicates that while 820 billion soums were allocated from the state budget for tax cashback payments in 2022, these expenditures are projected to exceed 1.8 trillion soums by 2026. For comparison, in 2026, the state budget allocation planned for the construction of preschool education facilities amounts to 900 billion soums, which is almost twice lower than projected tax cashback expenditures. Such a trend highlights the need to reconsider the fiscal efficiency of incentive mechanisms and improve their targeting (Figure 2).

However, these results should not be interpreted as evidence that the tax cashback mechanism has completely lost its effectiveness or should be abolished. On the contrary,

during its initial implementation stage, the mechanism demonstrated significant effectiveness in developing tax culture, promoting the habit of requesting fiscal receipts, and involving consumers in the tax monitoring process. Therefore, the current priority should not be the elimination of this mechanism but rather its differentiated application based on regional levels of tax culture and the scale of the shadow economy.

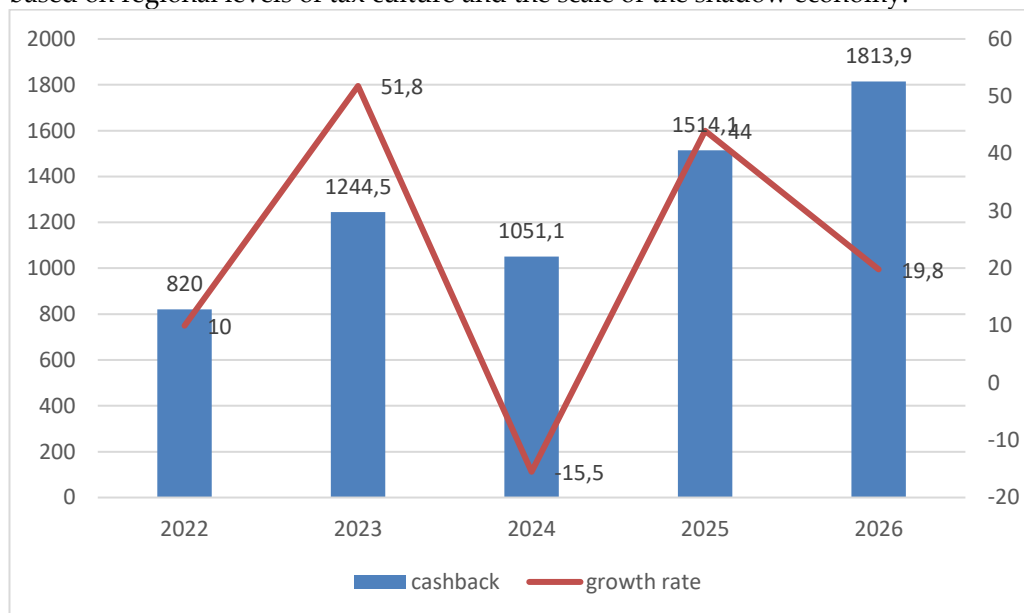


Figure 2. State budget expenditures on tax cashbacks within the framework of purchase receipts (for 2022-2026)

In our view, improving the tax cashback mechanism requires classifying regions into groups based on such criteria as the Tax Culture Index, the level of activity in registering fiscal receipts, the share of non-cash payments, the degree of digital service utilization, and the share of the shadow economy. In particular, in regions where tax culture is highly developed and fiscal discipline has become stable, the universal 1% cashback mechanism may be gradually replaced by targeted incentive instruments, such as lotteries, bonus programs, or rewards directed toward high-risk sectors. Conversely, in regions with relatively low tax culture and a high share of the shadow economy, maintaining or temporarily strengthening the existing 1% cashback mechanism would contribute to further consolidating consumers' habit of requesting fiscal receipts.

In our opinion, the main direction for improving the tax cashback mechanism should not be its abolition, but rather the introduction of a differentiated incentive model based on the level of tax culture in each region. This is because regions across the country differ significantly in terms of tax culture, fiscal discipline, the level of digital payment adoption, activity in registering fiscal receipts, and the scale of the shadow economy. Therefore, applying a uniform tax cashback rate across all regions does not fully correspond to the principles of economic efficiency and rational allocation of public budget resources.

According to the proposed approach, it is advisable to develop a Tax Culture Index for each region. The calculation of this index should incorporate a comprehensive set of indicators, including the share of registered fiscal receipts, the level of non-cash payments, voluntary compliance with tax legislation, the number of tax violations, the share of the shadow economy, the level of utilization of digital tax services, and indicators of public oversight. The results of the index assessment would allow regions to be classified into groups with high, medium, and low levels of tax culture development.

Based on this classification, a differentiated application of the tax cashback mechanism is proposed. Specifically, in regions with a high level of tax culture, it would be appropriate to gradually reduce the universal cashback amount and replace it with risk-oriented incentive mechanisms. In regions with a medium level of tax culture, the existing mechanism should be maintained, while in regions with low tax culture and a high share of the shadow economy, cashback should be applied as an enhanced incentive instrument. At the same time, the form and intensity of incentives should be determined according to the specific characteristics and needs of each region.

As a result of implementing this approach, public budget funds would be directed toward the regions where they are most needed, the fiscal efficiency of the tax cashback mechanism would increase, and incentive instruments would become better aligned with actual regional conditions. Most importantly, the tax cashback mechanism would gradually move away from functioning as a universal subsidy instrument and evolve into an adaptive fiscal tool aimed at developing tax culture. This would make it possible to integrate financial incentives, digital tax administration, and citizens' voluntary tax compliance within a unified mechanism for combating the shadow economy.

In our view, the practical implementation of this differentiated model would not only improve the efficiency of budget expenditures but also contribute to the formation of healthy fiscal competition among regions. Regions demonstrating improvements in tax culture indicators would advance to the next stage of the incentive policy framework. As a result, local government authorities, tax administration bodies, and civil society institutions would become directly interested in promoting tax culture. Thus, the tax cashback mechanism could be transformed from a simple compensation tool into a strategic instrument for assessing and stimulating regional fiscal development.

The distinctive feature of this approach lies in the fact that the tax cashback mechanism is proposed not as a uniform nationwide instrument, but as a differentiated fiscal mechanism managed in accordance with regional levels of tax culture and indicators of the shadow economy. Such an approach creates conditions for more targeted fiscal policy implementation and enhances the role of tax incentives in promoting formal economic activity and strengthening voluntary tax compliance.

Conclusions and Recommendations

The findings of the study demonstrate that reducing the scale of the shadow economy in Uzbekistan cannot be achieved solely through strengthening control measures or improving enforcement mechanisms; it also requires the formation of a high level of tax culture within society. Tax culture represents an important institutional factor reflecting citizens' attitudes toward voluntary tax payment, their trust in public institutions, fiscal discipline, and their understanding of the social importance of taxation. Therefore, within the strategy for combating the shadow economy, systematic measures aimed at developing tax culture should be considered a priority direction alongside improvements in tax administration.

The study revealed that digital technologies, electronic tax services, fiscal receipt systems, online cash register systems, and economic incentive instruments play a significant role in enhancing tax culture. In particular, although the 1% tax cashback mechanism introduced in 2022 has demonstrated positive results in developing consumers' habit of requesting fiscal receipts and strengthening public oversight, the further development of digital tax administration highlights the need to adapt and improve this mechanism in accordance with contemporary economic conditions.

Rather than abolishing the tax cashback mechanism, it is more appropriate to differentiate its application based on regional levels of tax culture, the share of the shadow economy, and fiscal risk indicators. Such an approach would, on the one hand, improve the efficiency of public budget resource utilization and, on the other hand, ensure that incentive instruments are directed specifically toward regions where tax culture development is most needed.

Based on the results of the study, the following recommendations have been developed:

1. Develop and introduce a Regional Tax Culture Index as one of the key indicators for assessing the level of the shadow economy across regions and for improving the formation of differentiated fiscal policy measures.
2. Implement a differentiated tax cashback mechanism based on regional levels of tax culture, the activity of fiscal receipt registration, the share of non-cash payments, tax debt indicators, and the scale of the shadow economy.
3. Implement additional economic incentive programs in regions with low tax culture, aimed at encouraging citizens to request fiscal receipts, improving tax literacy, and supporting the formalization of entrepreneurial activities.
4. Gradually transition from universal incentive mechanisms to targeted incentive

instruments in regions with a high level of tax culture, while improving fiscal control efficiency through the application of artificial intelligence, Big Data technologies, and risk-based analytical systems.

5. Develop a National Tax Culture Development Program and ensure the comprehensive involvement of schools, higher education institutions, mass media, mahalla institutions, business entities, and civil society organizations in its implementation.
6. Introduce qualitative performance indicators for evaluating tax authorities' activities, alongside traditional indicators such as the volume of collected taxes. These indicators should include the level of tax culture, voluntary tax compliance rates, reduction of the shadow economy, and taxpayer satisfaction levels.
7. Establish a systematic monitoring and evaluation framework for assessing the effectiveness of tax culture development measures, including analysis of regional Tax Culture Index dynamics in relation to changes in shadow economy indicators.

The results of the study indicate that sustainable and long-term outcomes in combating the shadow economy can be achieved not through increasing administrative pressure alone, but through enhancing tax culture, strengthening citizens' trust in public institutions, expanding digital tax services, and applying economic incentive instruments according to regional development characteristics.

From this perspective, the differentiated incentive model proposed in the study, based on regional levels of tax culture, is recommended as a new scientific and practical approach aimed at reducing the shadow economy and increasing the level of voluntary tax compliance in Uzbekistan. This approach integrates institutional development, digital transformation of tax administration, and behavioral incentives, thereby creating conditions for a more effective and sustainable tax system.

REFERENCES

- [1] B. Torgler, **Tax Compliance and Tax Morale: A Theoretical and Empirical Analysis**. Cheltenham, U.K.: Edward Elgar Publishing, 2007.
- [2] J. Alm and B. Torgler, "Culture differences and tax morale in the United States and in Europe," *J. Econ. Psychol.*, vol. 27, no. 2, pp. 224–246, 2006.
- [3] M. Allingham and A. Sandmo, "Income tax evasion: A theoretical analysis," *J. Public Econ.*, vol. 1, no. 3–4, pp. 323–338, 1972.
- [4] E. Kirchler, E. Hoelzl, and I. Wahl, "Enforced versus voluntary tax compliance: The 'slippery slope' framework," *J. Econ. Psychol.*, vol. 29, no. 2, pp. 210–225, 2008.
- [5] B. Torgler, "Tax morale and compliance: Review of evidence and case studies for Europe," *World Bank Policy Res. Working Paper*, no. 5922, 2011.
- [6] J. Slemrod, "Cheating ourselves: The economics of tax evasion," *J. Econ. Perspect.*, vol. 21, no. 1, pp. 25–48, 2007.
- [7] L. Medina and F. Schneider, "Shadow economies around the world: New results for 158 countries over 1991–2015," *CESifo Working Paper*, no. 6430, 2017.
- [8] C. C. Williams, "Out of the shadows: A classification of economies by the size and character of their informal sector," *Work Employ. Soc.*, vol. 28, no. 5, pp. 735–753, 2014.
- [9] D. Rodriguez-Justicia and B. Theilen, "Ideological alignment, public sector size and tax morale: Empirical evidence from OECD economies," *Humanit. Soc. Sci. Commun.*, vol. 10, no. 1, pp. 1–11, 2023.
- [10] F. J. Fonseca Corona, "Tax morale: A global scoping review from the cultural approach to economics," *Int. Rev. Econ.*, vol. 71, no. 2, pp. 343–365, 2024.
- [11] S. A. Aqmirzayevich, "A blow to the shadow economy: How effective are tax reforms?," *Germany Int. Sci. Conf.*, vol. 1, no. 2, pp. 57–60, 2026.
- [12] D. R. Abdulov, "Ways to improve the taxation system of the Republic of Uzbekistan," in **Greater Eurasia: Development, Security, and Cooperation**, no. 5-1, pp. 755–763, 2022.
- [13] G. B. Bababekova, "The role of tax mechanisms in the development of small business in the Republic of Uzbekistan," **Economy and Society**, no. 6-2 (145), pp. 733–738, 2026.
- [14] Sh. Jumayev, "Issues of improving the tax administration and tax system strategy in the Republic of Uzbekistan," **Economy and Society**, no. 4-1 (119), pp. 869–876, 2024.
- [15] Sh. S. Oltayev, "The necessity of improving the tax incentive mechanism in the digital economy," **Education, Science and Innovative Ideas in the World**, vol. 86, no. 3, pp. 392–398, 2026.

- [16] M. G. Grigoryeva, B. M. Kamal, and L. I. Tkachenko, "Problems of measuring the scale of the shadow economy and ways to solve them," **Tomsk State University Journal of Economics**, no. 56, pp. 207–222, 2021.
- [17] J. Urazmatov and A. Abduvakhidov, "Tax mechanism for value-added distribution under the conditions of 'mutual growth of taxpayers and tax authorities'," **Economy and Education**, no. 3, pp. 82–90, 2021.