



## **SOME ASPECTS OF THE IMPACT OF ALGORITHMIC SYSTEMS ON THE OVERALL TAX COMPETITIVENESS INDEX IN TAXATION ISSUES**

Sh.V. Ganiyev

International School of Finance Technology and Science, Professor

B. B. Ibragimov

International School of Finance Technology and Science, PhD

<b>ABSTRACT</b>	<b>KEY WORDS</b>
Research carried out by the International Center for tax and development (ICTD) has shown that only 23% of developing countries have approved a strategy for digitalization and development of tax administration. But in the context of the digital economy, the issues of improving the elements of tax administration are poorly studied as a holistic system in the direction of automation and digital transformation, as a scientific study. The purpose of the study is to develop proposals for improving the organizational elements of tax administration and increasing the level of cooperation between taxpayers and tax authorities.	Tax administration, taxes, index, algorithmic

### **Introduction**

In a period when production and service are currently recognized as an important organizing factor in the country's economic development, the regulation of relations between state bodies and entrepreneurs-taxpayers and the development of new approaches to this relationship has become the essence of the main content of aspects aimed at the issues of budget-tax policy of fiscal reforms carried out in the country.

Research carried out by the International Center for tax and development (ICTD) has shown that only 23% of developing countries have approved a strategy for digitalization and development of tax administration<sup>1</sup>. The very low rate indicates the need to carry out research that requires a systematic approach in matters of improving tax administration.

Last year, 8 trillion sums were not provided to the budget for dividends and tax payments by some state-owned enterprises in Uzbekistan. Tax revenues in Syrdarya and Jizzakh regions increased by 20

<sup>1</sup> ICTD



percent, while in Bukhara and Kashkadarya this figure did not reach 7 percent<sup>2</sup>. President SH.M. Mirziyayev noted, “the heads and deputies of the Regional Tax Department show that the work of the taxpayers in the neighborhood is slow. Therefore, this system was revised and new directions were established”<sup>3</sup>.

## Discussion

Much attention is paid to improving the effectiveness of tax administration in ensuring sustainable socio-economic development in Uzbekistan. Problems such as shortcomings in the control system over the formation of transfer prices, incomplete functioning of the tax monitoring mechanism and low levels of “tax stability” of taxpayers negatively affect the effectiveness of tax administration. The relevance of the topic of research is determined by the fact that, as a result of scientific research on improving the effectiveness of tax administration instruments, in a word, achieving a result of significant social and economic significance in the content of “taxation is effective”. The study of the issues of strengthening cooperation with taxpayers in increasing the efficiency of Debt Collection, promoting the expansion of tax monitoring coverage, strengthening cooperation in tax policy, liberalization of the punishment system for tax offenses, and the use of fiscal instruments in reducing the size of the hidden economy are important tasks for improving tax administration.

Through the improvement of tax administration, scientific research on the optimal implementation of the state budget-tax policy, the achievement of sustainable growth of the economy and employment of the population, the legalization of the activities of the hidden economic sector and the correct distribution of income is carried out in the world's leading universities and scientific centers<sup>4</sup>.

## Literature Review

Issues of regulation of tax relations A.Timur, A.Smith, D.Ricardo, U.Petty, A.Laffer, T.Gobbs, P.Samuelson, Y.Fisher, K.McConnell, N.Menkyu, S.Brue, W.Belostotskaya, S.Barulin, Y.Kirova, Y.Egorova, D.Chernik, T.Yutkina, V.Titov, L.Min, D.Yum is also explored in his classical works<sup>5</sup>.

<sup>2</sup> <https://president.uz/oz/lists/view/6971>

<sup>3</sup> <https://president.uz/oz/lists/view/6971>

<sup>4</sup>Organisation for Economic Cooperation and Development; The International Centre for Tax and Development, ICTD; Institute for Fiscal Studies; The Center for advanced research in Finance, CARF; Japan International Cooperation Agency; The Korea Institute of Public Finance, Koreya; The University of Faisalabad; Centre International de Formation Européenne (CIFE)

<sup>5</sup>A.Temur «Temur tuzuklari», T.: O'zbekiston.2011y. 143- b., A.Смит. «Исследования о природе и причинах богатства народов» М. 1935й Т-2 588-589 б., Макконнелл К., Брю С. Экономика. Принципы, проблемы и политика. –М.: Республика, 1992. – 972 с.; Балацкий Е. Лафферовы эффекты и финансовые критерии экономической деятельности // МЭиМО.–М., 1997.–№11.–С. 31-43; Мэнкью Н.Г. Принципы экономики.–СПб: Питер Ком, 1999.– С. 356; Петти У. Трактат о налогах и сборах. Слово мудрым. Разное о деньгах. – М: Ось-89, 1997.– С. 346; Рикардо Д. Начала политической экономии и налогового обложения. Сочинения, том I. Государственное издательство политической литературы.–М., 1955.–С. 360; Самуэльсон П.А., Нордхаус В.Д. Экономика: Пер. с англ.–15-е изд. – М: Бином-КНОРУС, 1999. –С.800; Белостоцкая В.А. Системный подход к измерению налоговой нагрузки//Финансы. – М., 2003. –№336. –37с.; Кирова Е.А. Методология определения налоговой нагрузки на хозяйствующие субъекты //Финансы.–М., 1998. –№9.–С. 30-32; Титов В.В. Влияние налоговой системы на эффективность деятельности предприятия//Финансы. – М, 2006.–№2. –С. 42-46; Черник Д.Г. Налоги. 4-е издание.–М.: Финансы и статистика, 2000.–С. 430



Also, the problems of improving tax administration has also been studied in the studies A.Vahobov, Sh.Toshmatov, A.Altiyev, M.Almardonov, A.Jo ' rayev, T.Malikov, B.Israilov, O.Abdurakhmanov, B.Toshmurodova, K.Yahyayev, N.Khaydarov, B.Azimov, N.Kuzieva and et al<sup>6</sup>.

But in the context of the digital economy, the issues of improving the elements of tax administration are poorly studied as a holistic system in the direction of automation and digital transformation, as a scientific study. Integration and globalization of the economy and digitization processes in the countries of the world require the improvement of tax administration in accordance with the new economic conditions.

The purpose of the study is to develop proposals for improving the organizational elements of tax administration and increasing the level of cooperation between taxpayers and tax authorities.

Recent technological advances in various fields are changing decision-making processes. There is increasing evidence that various algorithmic systems can support, serve, or even replace human decisions in public administration<sup>7</sup> (König and Wenzelburger, 2021) and taxation (Huang, 2018). The term algorithmic management has become increasingly popular in recent times, although the concept of algorithmic management has been treated differently in different contexts (Katzenbach and Ulbricht, 2019). Both scientists and practitioners advocate the use of algorithms in management. Danaher et al. (2017) even stated that “we [already] live in an age of algorithms, where mathematics and informatics combine with powerful new methods to influence, shape, and guide our behavior and our society management”. The main problems that arise when using algorithms in management can be formulated in the following aspects.

The opacity of algorithmic operations: this problem is rarely presented as a “black box”, implying that automated processes in taxation are complex and difficult to explain for learning (Cath, 2018). Corinne Cath, Sandra Wachter, Brent Mittelstadt and Luciano Floridi are based on artificial intelligence, the system or at the heart of the emergence of new problems and “calls” associated with decisions made by an automated system “various effect of a large database” or algorithmic damage<sup>8</sup>, social justice issues lay down. Given the wide impact of this, these current issues can only be successfully resolved from an interdisciplinary point of view.

The concept of Algorithmic Justice has not yet been given significant importance in taxation issues, as long as “Algorithmic Justice” is considered as one of the possible mechanisms for increasing transparency and accountability. In Europe, for example, the idea of the “right to explain” algorithmic solutions are discussed. These right gives individuals the right to explain if the algorithm makes a decision for them (for example, refusal to issue a loan). However, this right has not yet been guaranteed. In addition, the question of how we interpret a “perfect algorithmic explanation” and how these explanations can be incorporated into their automated systems remains open<sup>9</sup>.

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<sup>6</sup>Ibragimov. B.B. Improvement of methodology of tax administration The topic of doctoral dissertation (DSc).– T., 2024.– 7 b

<sup>7</sup>M. Milosavljevic et al. What drives the performance of tax administrations? Evidence from selected european countries. *Economic Modelling* 121 (2023) 106217.

<sup>8</sup>As a result of the tax audit conducted by the Tashkent City Tax Department, the system has poured into confusion in the accounting books carried out by the automated system. It is not possible to disclose this information within the framework of the lawyer's secret.

<sup>9</sup> Cath, C., 2018. Governing artificial intelligence: ethical, legal and technical opportunities and challenges. *Phil. Trans. Math. Phys. Eng. Sci.* 376 (2133), 20180080 <https://doi.org/10.1098/rsta.2018.0080>. Coglianese, C., Lehr, D., 2019. Transparency and algorithmic governance. *Adm. Law Rev.* 71 (1), 1–56.



The table below shows the International Tax Competitiveness Index in the cross section of some countries in 2023.

Table 1. 2023 International Tax Competitiveness Index Rankings

Country	Overall rank	Overall score
Estonia	1	100
Latvia	2	88,5
New Zealand	3	86,1
Switzerland	4	84,7
Czech Republic	5	81,2
Luxembourg	6	78,9
Turkey	7	78,6
Israel	8	78,3
Lithuania	9	76,6
Australia	10	75,9
Hungary	11	75
Slovak Republic	12	74,3
Sweden	13	73,3
Netherlands	14	70,6
Canada	15	69,8
Slovenia	16	66,6
Norway	17	66,6
Germany	18	66,6
Finland	19	66,5
Austria	20	65,3
United States	21	65
Costa Rica	22	64,8
Korea	23	61,6
Japan	24	61,5
Greece	25	61,4
Mexico	26	60,1
Belgium	27	60
Ireland	28	58,9
Denmark	29	58,5
United Kingdom	30	56,1
Spain	31	55,8
Iceland	32	55,5
Poland	33	55,3
Portugal	34	52,1
Chile	35	50,5
France	36	49,1

## Conclusion

In our approach, this index should be relevant in which areas the main goals in the tax strategy in the countries where the digital tax transformation is carried out are focused. In a word, the operation of



automated systems in what state should also be involved as a key factor in the Tax Competitiveness Index.

The scientific significance of the research results is reflected in the fact that the conclusions and proposals developed in the work provide opportunities for improving the organizational foundations of tax administration.

The practical significance of the results of the study is explained by the fact that the formation of conclusions that serve to increase the level of survival of taxpayers and improve the interaction activities of tax authorities and taxpayers can be used in tax reforms in accordance with the requirements of the period.

## References

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