DEVELOPMENT OF TAX ADMINISTRATION IN THE CONDITIONS OF DIGITALIZATION OF THE ECONOMY

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Abstract. In the era of digitalization of the economy, tax administration faces new challenges and opportunities. This study aims to analyze current trends in tax administration and identify ways to improve it taking into account the requirements of the digital economy. Based on theoretical analysis and practical examples, the article discusses the main directions and methods of improving the efficiency of tax authorities through the introduction of digital technologies. The study emphasizes the importance of integrating innovative information and communication technologies into the processes of tax administration to ensure its transparency, accessibility and convenience for taxpayers. The results of the work offer recommendations for the formation of an ecosystem of tax administration in the digital economy, contributing to the strengthening of trust between the state and business, as well as improving tax collection and reducing tax risks.

Keywords: tax administration, digital economy, information and communication technologies, efficiency of tax authorities, integration of digital technologies, availability of tax services, convenience of taxpayers, tax administration ecosystem, tax collection, tax risks, improvement of tax administration.

JEL Classification: H21, H24, H25.

1. Introduction

In the rapidly evolving digital landscape, tax administration systems worldwide are confronted with unprecedented challenges and opportunities. This study aims to delineate the impacts of digitalization on tax administration, focusing on how it can improve efficiency, compliance, and taxpayer services. The primary goal is to analyze current digital practices and propose strategic improvements to optimize tax administration using digital technologies.

The problems addressed by this research include the resistance to change within traditional tax systems, the varying levels of digital literacy among taxpayers, and the integration of emerging technologies into existing frameworks. Furthermore, the study examines the risks and threats posed by digitalization, such as data security and privacy concerns.

The objectives of this research are threefold:
– To provide a comprehensive analysis of the current state of digital tax administration globally, identifying key trends and challenges.
– To evaluate the effectiveness of digital tools and methodologies in enhancing tax collection and compliance.
– To recommend actionable strategies for tax authorities to harness the potential of digital technologies effectively and securely.

By addressing these goals, problems, and objectives, this paper contributes to the understanding of digital transformation in tax administration and offers a roadmap for future developments.

2. Methodology

The theoretical and methodological foundation of this study is built upon both applied and fundamental works by domestic and foreign scholars who explore the challenges associated with forming a new regulatory environment in the context of the digital economy. This includes scientific articles, reports, and documents from international organizations that address the digitalization of tax administration methods. A systematic analysis of these sources helps to develop an effective research strategy, taking into account the interrelation and interdependence of the objects of study.

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Methodological Framework:

The research is grounded in current legal norms and regulations that govern public administration and tax regulation, reflecting the fundamental principles of tax system construction. Documents and analytical reports from international organizations, as well as national strategic documents, provide practical insights into managing digitalization processes within the digital transformation of tax authorities.

3. Research methods

The objectivity and reliability of the conclusions drawn from this study are ensured by the use of general scientific research methods, including Comparative analysis, Logical analysis, Graphical analysis, and Statistical analysis.

Literature review: In the context of this study, special attention is given to analyzing the theoretical and practical aspects of digitalization in tax administration amid the development of the digital economy. Both foreign and domestic scientific literature widely discuss issues related to the new regulatory environment of relationships formed at the intersection of the institutionalization of digital governance methods and the digitalization of economic processes.

Main research directions include: Theoretical Analysis of Economic Digitalization: Studies by Don Tapscott, Thomas Mesenbourg, and Erik Brynjolfsson address general trends in the development of the digital economy and its impact on economic systems.

Works by B. N. Panshin, A. A. Kuntsman, and other domestic scholars extensively cover the specifics of applying digital technologies within the modern context.

Digitalization of Government Administration: Authors such as O. V. Linnik and A. V. Ozhagovsky focus on analyzing the processes of institutionalizing digital methods in state governance, highlighting key challenges and opportunities.

Digitalization of Tax Administration: Internationally, Duncan Bentley study the adaptation of tax systems to digital economy conditions, including issues related to the taxation of digital services.

The researchers like D. M. Lugmanova and D. N. Suleymanov, explore methods and tools for digitizing tax administration, identifying ways to optimize interactions between tax authorities and taxpayers.

Problematic and relevance of the research: This study aims to identify and systematic the main problems and challenges arising from the digitalization of tax administration. This is particularly relevant for transitional economies like Kyrgyzstan, where digital transformation processes are actively developing but face difficulties such as inadequate institutionalization, legislative regulation issues, and the need to improve the population's digital literacy.

Research goals and objectives: the main goal of this work is to develop and propose effective digital transformation tools for tax authorities, facilitating the creation of a comfortable tax environment based on principles of customer centricity. To achieve this goal, the following objectives are set:

Analyze existing theoretical approaches and practical solutions in the field of tax administration digitalization.

Study the specifics of implementing digital technologies in the tax systems of transitional economies.

Offer specific recommendations for optimizing processes and mechanisms in tax administration using modern digital technologies.

4. Retrospective analysis of the state and directions of development of tax administration

In the context of retrospective analysis of the state and directions of development of tax administration, the focus is on the transformation of tax systems under the impact of digitalization of the economy. This process, which began at the beginning of the 21st century, has led to significant changes in the mechanisms of tax collection and administration at the global level.

Stages of development: Initiation of digitalization (2000s): At this stage, tax authorities began active implementation of basic information systems and transition to electronic document flow. The main emphasis was on simplifying tax filing and reporting procedures for taxpayers. The first versions of online portals for taxpayers were launched in a number of countries.

Expansion of functionality and data integration (2010s): At this stage, the focus shifted to the development of integration of various databases and automation of tax control. The introduction of big data analysis systems allowed the tax authorities to more effectively identify cases of tax violations and evasion. Predictive analysis algorithms were developed and implemented to predict risks and optimize tax administration processes (Mikhailovna et al., 2018).

Integration with the digital economy (2020s and beyond): The current stage is characterized by the desire to create a universal digital ecosystem covering all aspects of interaction between taxpayers and tax authorities.

The active use of artificial intelligence, machine learning and blockchain technologies opens up new opportunities to increase transparency and reduce the administrative burden on businesses. At the same time, the expansion of taxation to include transactions in the digital economy segment, such as e-commerce and digital services, poses new challenges for tax systems.

Outlook: In the future, further development of blockchain and cryptocurrency technologies is expected, which will require adaptation of tax codes and tax collection mechanisms to effectively regulate and control these areas of activity. In addition, international cooperation in the exchange of tax information to combat international tax evasion is becoming increasingly important.

5. Risks and threats to tax administration, posed by digitalization

Digitalization of tax administration, while bringing significant advantages in terms of efficiency and accessibility of processes, also creates new risks and threats. These challenges require tax authorities to be not only technologically ready, but also flexible in adapting the legal and regulatory framework (Brynjolfsson, 2021).

Cybersecurity: As tax data and processes move to a digital environment, the risk of cyberattacks increases. System hacks, phishing attacks, and viruses can leak confidential taxpayer information as well as disrupt critical tax services.

Digital tax evasion: The proliferation of cryptocurrencies and other digital means of payment opens up new avenues for tax evasion. Cryptocurrency transactions may be anonymous and not always easily traceable by tax authorities, making it difficult to control the correctness of tax calculation and payment.

Difficulties in adapting tax legislation: The rapid development of digital technologies outpaces the legal system's ability to regulate them. Tax legislation may not be ready for new economic realities, creating gaps in tax regulation and facilitating new forms of tax evasion (OECD, 2021).

Automation and job losses: The introduction of automated systems and artificial intelligence into tax administration processes may lead to a reduction in the number of jobs and an increase in the skill requirements of tax officials. This necessitates retraining of staff and may contribute to increased social discontent (Kunstman, 1984).

Data and privacy issues: The collection, storage and processing of large amounts of taxpayer data raises questions about the protection of personal information and privacy. Risks of unauthorized access to or misuse of data can undermine trust in tax authorities.

International aspects of digital taxation: The digitalization of the economy is blurring borders, allowing companies to operate in different jurisdictions without a physical presence. This creates complexities in determining the location of taxation and the allocation of tax rights, requiring international cooperation and coordination on digital taxation (Bentley, 2020).

To overcome these risks, tax authorities need to develop and implement comprehensive strategies that include strengthening cybersecurity measures, adapting tax laws, developing international agreements on digital taxation, and increasing transparency and trust on the part of taxpayers (Suleymanov, 2020).

6. The tax system of the Kyrgyz Republic and stages of digitalization

The Kyrgyz Republic, as a developing economy, is also experiencing the impact of digitalization on its taxation system.

The tax system of the Kyrgyz Republic is an important element of the financial and economic sphere of the state, carries out direct work on collection of taxes and payments to the budget of the Republic and makes a significant contribution to the economic security of the country, implementation of social and economic programs of the state.

The main purpose of tax administration is to ensure timely and full receipt of tax and non-tax revenues to the budget system of the Kyrgyz Republic and to increase the level of tax payment discipline. Digital methods of tax administration fully correspond to modern requirements. The development of information technologies together with centralized administration will allow the effective use of analytical tools for the application of remote control methods, which are able to identify any violations of tax laws (Lugmanova, 2021).

Tax administration is a part of tax production, penetrating all spheres of public life. Its significant shortcomings and weaknesses contribute to the reduction of the level of economic security of the country: underpayment of tax and non-tax revenues by the state, increase in the number of tax offenses committed, deterioration of the tax climate and tax payment discipline, expansion of opportunities for evasion of tax liability and other. Therefore, the system of tax administration should meet al. modern requirements, in this regard, the reform of tax administration of the republic in recent years has become an important element to improve the investment climate in order to support economic growth and development of the private sector (Ministry of Finance of the Kyrgyz Republic, 2022).

Strengthening tax administration through the use of electronic methods of analysis and control is especially relevant in connection with the tasks of the State Tax Service to fulfill the forecast indicators of the revenue part of the state budget and the budget of the Social Fund (Ministry of Finance of the Kyrgyz Republic, 2022).

The National Development Strategy of the Kyrgyz Republic for 2018–2040 provided for building a competitive and fair tax system, reducing the share of shadow economy and improving tax collection, strengthening the transparency of tax administration.

Accordingly, the direction of reforming and modernization of tax administration is based on the existing factors, risks and threats, taking into account the experience of previous years was aimed at the development and application of digital technologies in tax administration, improving the quality of service to taxpayers, increasing the transparency of procedures and simplifying processes (Karpova & Majburov, 2019).

As a result of the realization of strategic goals of the tax system development, a number of initiatives were implemented and introduced in the form of:

1) introduction of automated work processes of tax administration and creation of a single information base on the basis of a set of basic modules "Information system of tax administration of Kyrgyzstan" (Ministry of Finance of the Kyrgyz Republic, 2022);

2) creation of the service "Single Window", which significantly reduced the time of citizens to fulfill their tax obligations, reduced contacts of taxpayers with tax officials, which helped to minimize corruption manifestations;

3) organizing the work of the website of the State Tax Service of the Kyrgyz Republic, where relevant information is posted in a timely manner and a number of services for taxpayers provided online (movement of invoices, prescription for field audit, registration of taxpayers, electronic patent, electronic reporting, electronic invoice, marking of goods, electronic bill of lading, automated system of management of gas stations and others;

4) creation of electronic service "Taxpayer's Cabinet", where taxpayers have the opportunity to simplified system of electronic tax reporting through the website of the State Tax Service of the Kyrgyz Republic on a free basis, using a non-qualified electronic signature;

5) introduction of the system of electronic filing of tax returns using a qualified electronic signature, through which taxpayers submit returns electronically;

6) automation of desk audit procedures based on the module "Audit" in a strict algorithm in accordance with the requirements of the tax legislation of the Kyrgyz Republic, used by all territorial departments of the State Tax Service of the Kyrgyz Republic;

7) improving the quality of tax administration through the introduction of components of fiscalization of tax procedures (Lugmanova, 2021).

Adopted on September 13, 2023, the conceptual strategic document for the development of the tax system "The main directions of fiscal policy of the Kyrgyz Republic for 2024–2028" identified the main priorities for the development of fiscal legislation, according to which fiscal policy will be an instrument to stimulate economic growth and increase investment attractiveness. The stimulating role will be aimed at mobilizing all budget resources, creating fair competitive conditions for entrepreneurship and improving revenue administration.

The new Tax Code of the Kyrgyz Republic, adopted in 2022, played a key role in reforming fiscal policy, with the entry into force of which increased the resource part of the state budget and improved the administration of tax procedures, based on the introduction of new information technologies in tax and customs procedures, which reduced and optimized fiscal processes.

The formation of a digital platform of tax administration will allow to significantly increase the collection of budget resources without increasing the tax burden on taxpayers. In order to automate tax procedures, work is being done in terms of phased introduction of KKM by all business entities, with the subsequent expansion of the list of labeled goods. And the introduction of the "Cashback" mechanism will allow to stimulate citizens to demand cash receipts with QR code when making monetary settlements made in trade operations or rendering services by means of cash

In this direction in the previous years effective measures were taken to ensure compliance with the tax legislation, to increase the efficiency of tax administration to reduce the shadow economy, as well as to create favorable conditions for the entrepreneurial environment.

For the period 2021–2022, the nominal volume of tax revenues increased from 151,185.3 million KGS in 2021 to 228,961.6 million KGS in 2022 (Figure 1). The average annual growth rate of tax revenues in this period amounted to 146.4%. Such results were achieved due to economic growth, improvement of tax and customs administration. The growth of tax revenues is due in no small measure to the large-scale work on implementation of components of fiscalization of tax and customs procedures (Ministry of Finance of the Kyrgyz Republic, 2022).

As part of the digitalization of tax procedures, the "SMART Salym" initiative has introduced various components into the tax administration system, including electronic invoices (EI); electronic consignment notes (ECTN); the "Consolidated Post" information system; product labeling; online cash registers (OCR); electronic patents and insurance policies; the dislocation of business entities; online reporting and other projects (Fedotova et al., 2019).

The introduction of EI and ECTN was made possible by implementing components of the fiscalization of tax
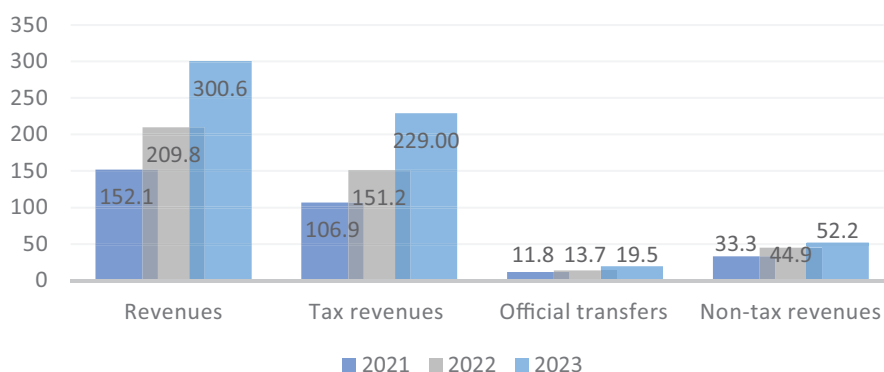

Figure 1. State budget revenues for 2020–2021 (billion soms)

procedures, as a result of which VAT revenues began to gradually increase, despite the epidemiological situation and the decline in economic indicators in the country, which confirms the beginning of a reduction in the market's shadow component.

In the near future, within the framework of the digitalization of tax procedures, it is planned to introduce new digital components, such as electronic raid tax control; an electronic consignment note; the "Taxpayer Passport" project; the open data portal on tax administration stat.salyk.kg; a project on the use of navigation seals; the implementation of an automated VAT control system; the electronic service vat.salyk.kg for remote tax registration by foreign organizations.

Further development of the use of digital technologies for improving tax administration includes:

Expanding and simplifying electronic services and individual services for taxpayers, including creating taxpayer profiles to reduce time expenditure and ensure convenience in fulfilling tax obligations;

Implementing a risk-oriented approach in tax control with the possibility of conducting remote tax audits, based on electronic technologies for extended information interaction and real-time data processing;

Increasing the analytical capabilities of the tax service using electronic methods of tax control to identify violations of tax legislation, with the aim of reducing the shadow economy and increasing budget revenues;

Fiscalizing tax procedures through the introduction of electronic consignment notes and other services, as well as optimizing the electronic invoice system and product labeling using identification means (Fedotova et al., 2019).

Overall, within the framework of improving tax policy, the emphasis remains on increasing the effectiveness of the stimulating role of the tax system and improving the quality of tax administration. This is accompanied by a reduction in administrative burdens for taxpayers and an increase in tax collection, which will be achieved through the introduction of new information technologies and the digitalization of tax procedures on the territory of the Republic, aimed at protecting responsible and conscientious taxpayers and citizens of the Kyrgyz Republic.

The transition to the principles of universal declaration with the application of control over the taxable income of the population is envisioned. Plans include the creation of a national component for the system of traceability and turnover of goods, as well as efforts to improve the rating of the Kyrgyz Republic on the global stage in the "Taxation" indicator. There are plans to stimulate the legalization of the informal sector of the Kyrgyz Republic's economy, protect domestic manufacturers and importers with impeccable reputations, and create a system of tax inspection and accounting of goods and their compliance with declared characteristics for fiscal purposes.

The digitalization of tax administration is becoming a global trend, and some countries have made significant progress in this area by adopting innovative approaches and technologies aimed at improving the efficiency of tax collection, simplifying tax administration for taxpayers, and combating tax evasion. One of the key aspects of successful digitalization of tax administration is the presence of clear and supportive legislation that regulates digital transactions, data protection, and electronic identification (Rodygina, 2018).

Global trends and best practices in the field of digitalization of tax administration show that success depends on a combination of legislative support, investments in technology, and staff training. The transition to digital systems requires regular training and upskilling programs for tax authority employees, which help maintain a high level of staff competence in the field of the latest technological developments (Tapscott, 2022). Special attention should be paid to acquiring and updating the digital skills of government officials on a continuous basis (Ministry of Finance of the Kyrgyz Republic, 2022).

The transition to digital platforms increases the risk level regarding the possibility of unauthorized access to taxpayers' personal and financial data stored in tax information systems. As a result, ensuring the confidentiality of this data and protecting against unauthorized access are critically important tasks, that government bodies can ensure by implementing international data protection and information security standards (Yanchenko, 2021).

Changes will affect all spheres of social life, bringing immense benefits, but at the same time, they will exacerbate existing and create new tax risks. Researching existing problems will provide an opportunity to identify key measures to neutralize the risks mentioned above. The approaches developed to minimize risks should be based not only on traditional ways of preventing random events but also on the latest achievements in IT technology.

7. Main directions for improving tax administration in the context of digitalization

The digitalization of tax administration opens new horizons for improving tax systems worldwide. It is crucial to identify key directions that will not only allow adaptation to the changing digital landscape but also utilize new technologies to enhance the efficiency and fairness of the tax system. Below are the main directions for improvement (Mandroshchenko & Bogachev, 2021).

Automation of Tax Processes

Digital technologies offer opportunities for full automation of tax accounting, collection, data processing, and tax return management. Using software and artificial intelligence to automate routine processes enables tax authorities to reduce data processing time and increase calculation accuracy (Molchanov, 2019).

Development of Digital Interfaces for Taxpayers

Creating convenient and understandable digital platforms and applications for taxpayers significantly simplifies the

process of declaring income and paying taxes. Electronic offices, mobile applications, and chatbots for consultations make the tax system more accessible and transparent for users (Bratsev & Grishanova, 2021).

Integration of Big Data and Analytics

The use of big data and analytical tools allows tax authorities to gain deep insights into tax flows, identify potential cases of tax evasion, and adapt tax policy to current economic conditions. Predictive analytics can serve as a basis for decision-making on optimizing tax rates and incentives.

Ensuring Cybersecurity

As the volume of digital data in tax systems increases, so does the risk of cyberattacks. Developing and implementing advanced information protection mechanisms becomes critically important for maintaining the confidentiality of tax information and preventing data breaches.

Increasing Literacy and Awareness among Taxpayers

One of the directions for improvement is also educational work among taxpayers on digitalization of tax processes. Organizing webinars, seminars, and courses will help increase trust in digital tax services and improve the culture of taxation (Rodygina, 2018).

International Cooperation and Standardization

Digitalization of tax administration requires intensified international coordination to develop unified standards and approaches, especially regarding the cross-border taxation of digital services and operations. Collaboration within international organizations and forums will allow for the development of coordinated solutions that contribute to combating tax evasion on a global level (Yanchenko, 2021).

These directions require a comprehensive approach and constant monitoring by tax authorities to adapt to the rapidly changing digital landscape, ultimately contributing to the creation of a fairer and more efficient tax system.
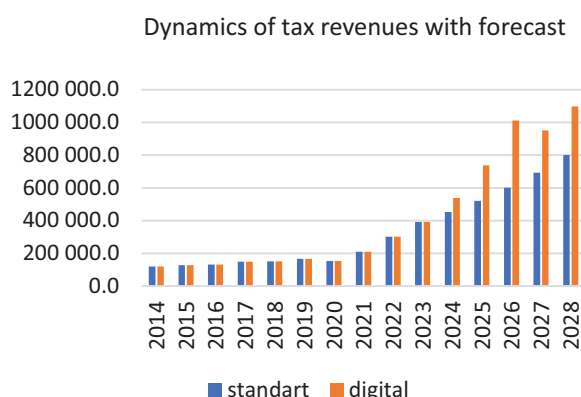
Dynamics of tax revenues with forecast

Figure 2. Expected results of the practical implementation of proposals for the development of the tax administration in the conditions of transformation of the digital economy

Practical implementation of the proposals for the development of tax administration in the transformation of the digital economy formulated based on the results of the study can lead to an annual increase in tax revenues to the consolidated budget of the Kyrgyz Republic (while maintaining the positive dynamics of corporate profits, the volume of taxable income of the population, as well as maintaining the trend to reduce arrears of taxes and fees) by at least 18%, which is clearly shown in Figure 2. Two trends were predicted: the first trend taking into account the dynamics built on the basis of a moving average of the data before digitalization (standard), the second trend was built on the basis of a moving average of the data after digitalization (digital).

Thus, the implementation of proposals formulated based on the results of the study on the development of tax administration in the transformation of the digital economy will allow to ensure a stable growth of mandatory payments to the budget system of the Kyrgyz Republic, despite the influence of external factors, as well as transparency of the economy and a comfortable tax environment.

Authors' contribution

Kanatbek Tynaliev, as the lead author and a doctoral student, was primarily responsible for conceptualizing the research framework, conducting the literature review, and collecting quantitative data. He also played a significant role in the data analysis phase and drafted the initial manuscript.

Chinara Adamkulova, as the supervising author, contributed to refining the research questions and methodology, provided extensive guidance on the qualitative data collection, and led the interview process with tax experts. She also critically reviewed and edited the manuscript for intellectual content, ensuring the study's overall coherence and academic rigor.

Both authors have read and approved the final version of the manuscript for submission. They also agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

References

Bentley, D. (2020). Digital tax administration: Transforming the workforce to deliver. *eJournal of Tax Research*, *18*(2), 353–381.

Bratsev, V. I., & Grishanova, A. M. (2021). Development of the digitalization process as a factor determining changes in the mechanism of tax administration. *Bulletin of the Russian Economic University named after G. V. Plekhanov*, *18*(1), 5–13. https://doi.org/10.21686/2413-2829-2021-1-5-13

Brynjolfsson, E. (2021, June 10). The coming productivity boom. AI and other digital technologies have been surprisingly slow to improve economic growth. *MIT Technology Review*. https://www.technologyreview.com/2021/06/10/1026008/the-coming-productivity-boom/

Fedotova, G. V., Gontar, A. A., Ilyasov, R. H., & Ksenda, V. M. (2019). The strategy of provision of tax security of the state in the conditions of information economy. In *Optimization of the taxation system: Preconditions, tendencies, and perspectives* (pp. 217–228). Springer. https://doi.org/10.1007/978-3-030-01514-5_25

Karpova, O. M., & Majburov, I. A. (2019). Transformation of value-added tax in the conditions of digitalization of the economy. *Vestnik Tomsk State University*, (46), 7–19. https://doi.org/10.17223/19988648/46/1

Kunstman, A. (1984). Controlling a linear dynamic system according to asymmetric preferences. *Journal of Economic Dynamics and Control*, *7*(3), 261–281. https://doi.org/10.1016/0165-1889(84)90020-4

Lugmanova, D. M. (2021). Transformation of the relationship of taxpayers and tax authorities in the conditions of digitalization of the economy. *Diary of Science*, *6*(54). https://www.elibrary.ru/item.asp?id=46363808

Mikhailovna, K. V., Grigorenko, I. V., Shkarupa, E. A., & Turgaeva, A. A. (2018). Compliance and service of tax administration system in the Russian Federation. *Economics. Vestnik of Astrakhan State Technical University*, (4), 86–93. https://doi.org/10.24143/2073-5537-2018-4-86-93

Ministry of Finance of the Kyrgyz Republic. (2022). *Development Strategy of the Tax Service under the Ministry of Finance of the Kyrgyz Republic for 2023–2025*. https://sti.gov.kg/stsStorage/websti/2023/10/24/stidocument_d7ad213f-6a1c-4440-bba3-4954dc5a575f.pdf

Mandroshchenko, O. V., & Bogachev, S. V. (2021). Tax administration in the digital economy: development prospects. *Economic Systems*, *14*(1), 152–158. https://doi.org/10.29030/2309-2076-2021-14-1-152-158

Mesenbourg, T. L. (2001). *Measuring the digital economy*. US Bureau of the Census, Suitland, MD.

Molchanov, E. G. (2019). Innovative tools of tax administration in the conditions of the program "Digital Economy in the Russian Federation". *Public Service*, *23*(5), 60–66. https://doi.org/10.22394/2070-8378-2021-23-5-60-66

Panshin, B. N. (2021). Digital culture as a factor of efficiency and reducing the risks of digital transformation of the economy and society. *Digital Transformation, Educational Establishment Belarusian State University of Informatics and Radioelectronic*, (3).

Petukhova, R. A., & Grigoryeva, Ya. A. (2019). Tax administration in the digital economy. *Economy. Bulletin of Tomsk State University*, (46), 303–316. https://doi.org/10.17223/19988648/46/21

Rodygina, V. E. (2018). Digitalization of VAT tax control: Legal implications and prospects. *Financial Law*, (9), 31–34.

Suleymanov, D. N. (2020). Digitalization of the activities of tax authorities. In *Digital technologies: Trends and prospects: Collection of scientific and practical reports* (pp. 78–87). Russian New University. https://www.elibrary.ru/item.asp?id=45623273

Tapscott, D. (2022, January 6). *How to build the digital economic system of the Metaverse?* http://www.nbd.com.cn/articles/2022-01-06/2075443.html

Yanchenko, E. V. (2021). Tax regulation as a factor of competitiveness in the context of economy digitalization. *Issues of Innovative Economy*, *11*(2), 537–552. https://doi.org/10.18334/vinec.11.2.112053