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ANALYSIS OF THE IMPACT OF DIGITALIZATION ON THE EFFECTIVENESS OF TAX ADMINISTRATION IN DEVELOPING COUNTRIES

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Abstract*. This article presents an analysis of the impact of digitalization on the effectiveness of tax administration in developing countries. It discusses the main trends in digital technologies and their application in the tax domain, features of digital innovation implementation in developing countries, and assesses the impact of digitalization on the processes of tax collection, control, and administration. The analysis identifies prospects and challenges faced by developing countries in implementing digital transformation in tax administration and formulates recommendations for improving the effectiveness of the tax system in the context of the digital economy.*

Keywords*: digitalization, tax administration, developing countries, digital technologies, trends, application, digital innovations, tax collection, control, tax administration, impact of digitalization, prospects, challenges, digital transformation, recommendations, effectiveness, tax system, digital economy.*

INTRODUCTION

A general understanding of the importance of analyzing the impact of digitalization on tax administration in developing countries lies in recognizing the need to actively integrate digital technologies into tax systems to enhance their efficiency, transparency, and effectiveness in tax collection. In developing countries, where issues like corruption, inadequate process automation, and insufficient management levels often persist, digitalizing tax administration presents a significant potential for improving the quality of the tax system and enhancing conditions for economic growth and social development [1-3].

Digital technologies can greatly improve tax collection and administration processes, making them more transparent, accessible, and efficient. Automation of data collection and processing, implementation of electronic document management, use of data analytics and artificial intelligence to detect tax violations and reduce tax risks—all these measures can enhance the quality of tax administration and increase state revenues. Particularly noteworthy is that digitalizing tax administration can reduce corruption levels and enhance public trust in tax authorities. This occurs through increased transparency in tax collection and distribution processes, reduced human intervention, and the ability to verify tax data in real time. Overall, the analysis of the impact of digitalization on tax administration in developing countries demonstrates that this is not just a trend or technological fad, but a necessity for improving living conditions and ensuring sustainable economic development [4-6].

Main Trends in Digitalization of Tax Administration

Analyzing modern technological solutions in the tax sector is a key component for assessing the efficiency and potential for innovation application in tax management [7]. Over recent decades, technological innovations have significantly transformed the ways of collecting, processing, analyzing, and managing tax information. The following are the main technological solutions and their impact on the tax sphere:

Use of Artificial Intelligence and Machine Learning:

AI and machine learning technologies enable the automation of tax data analysis processes, identifying trends and patterns, and forecasting tax risks. This contributes to more accurate prediction of tax liabilities and improvement of tax management strategies.

Blockchain Technology in Tax Reporting:

Blockchain technologies can be used to create transparent and reliable systems for recording and storing tax information. This helps to reduce opportunities for tax fraud and evasion, and increases trust in the tax system.

Cloud Technologies in Tax Accounting and Reporting:

Cloud solutions offer centralized storage and access to tax information, providing flexibility, scalability, and data security. This simplifies the processes of reporting and information exchange between tax authorities and taxpayers.

Automation of Tax Processes:

Robotics and automation of the collection, analysis, and preparation of tax reports can reduce the time and resources spent on these operations and decrease the likelihood of human errors. This enhances the efficiency of tax services and reduces the risks of tax violations.

Interactive Reports and Analytics:

The use of interactive reports and analytical tools allows tax specialists to conduct in-depth data analysis, identify trends and patterns, and make more informed and justified decisions in tax management.

Overall, modern technological solutions in the tax sphere play a key role in enhancing the efficiency of tax management, improving the quality of tax reporting, and reducing tax risks. However, the implementation of new technologies requires careful analysis and preparation, as well as ensuring compliance with legislation and data security standards [8-10].

Studying examples of successful application of digital innovations in developing countries is an important aspect of research in technology and economic development. This approach identifies key success factors and effective strategies for implementing digital solutions in the context of limited resources and specific characteristics of developing countries [11].

Examples include the use of mobile technologies for financial inclusion in Africa, South Asia, and Latin America, where mobile payments and financial inclusion services are actively used to improve access to banking services and enhance financial literacy among the population. Another example is the development of e-commerce and online markets in developing countries, with platforms like Jumia in Africa and Flipkart in India becoming important channels for selling goods and services, facilitating the growth of small and medium-sized enterprises and creating new jobs.

Additionally, digital technologies are actively applied in the education and healthcare sectors of developing countries. Mobile applications and online platforms provide access to educational resources and medical services in remote and rural areas, improving the quality of education and healthcare [12-14].

Studying these examples helps identify common trends and success factors, such as government support, development of digital infrastructure, and ensuring accessibility of digital services to the broader population. It is also important to consider the specific characteristics of each country and the context in which digital innovations are applied, to develop the most effective strategies and approaches for their implementation.

Features of Implementing Digital Innovations in Developing Countries

Identifying factors that influence the success of digital transformation in tax administration is key to effectively carrying out this process. The main factors that affect the success of digital transformation in tax administration include:

Political and Legislative Support:

Support at the level of state policy and legislation plays a crucial role in the successful implementation of digital transformation in tax administration. Laws and political decisions aimed at supporting digital innovations and modernizing tax systems create a favorable environment for the introduction of new technologies and processes.

Technological Infrastructure:

The presence of modern technological infrastructure, including software, cloud computing, analytical tools, and cybersecurity, is important for the successful digital transformation of tax administration. Effective use of technologies enables the automation of processes, enhancing productivity and the quality of taxpayer services.

Skilled Personnel and Training:

The availability of highly qualified specialists in information technology and taxation, as well as their systematic training and development, play a crucial role in successful digital transformation. It is necessary to ensure that tax services are staffed by personnel capable of effectively applying new technologies and methods.

Public Trust Level:

The trust of taxpayers in the tax system and tax administration is a key factor for the successful implementation of digital transformation. The introduction of new technologies and processes must be transparent, reliable, and secure to maintain and increase public trust in the tax system.

Flexibility and Adaptability:

Flexibility and the ability to adapt to changing conditions are important qualities for successful digital transformation of tax administration. Tax services must be ready to quickly respond to new challenges and opportunities, embrace innovations, and implement changes in their operations.

Identifying and accounting for these factors enables effective planning and implementation of the digital transformation process in tax administration, which contributes to improving the quality of taxpayer services, enhancing the efficiency of tax collection, and strengthening trust in the tax system [15].

Developing countries face several obstacles and challenges in implementing digital technologies, which complicates their effective use and integration into various spheres of life. The main obstacles and challenges include:

Infrastructure Limitations:

Many developing countries have limited access to quality information and communication infrastructure. Insufficient internet coverage, low data transmission speeds, and lack of access to modern technologies create significant barriers to the successful implementation of digital projects.

Financial Constraints:

Limited access to financial resources for developing digital projects is one of the main barriers. A lack of funding can slow down the deployment of modern technologies and their integration into education, healthcare, government management, and other areas.

Shortage of Qualified Personnel:

Developing countries often face a shortage of qualified personnel in information technology. An insufficient number of specialists with the necessary skills and competencies in digital technologies can slow down the implementation and use of new technologies.

Cultural and Social Barriers:

Cultural and social factors can significantly influence the adoption and dissemination of digital technologies. Insufficient awareness of the benefits of digitalization, as well as concerns about data security and privacy, can hinder the widespread implementation of technologies.

Underdeveloped Legal Framework:

In developing countries, there is often an underdeveloped legal framework in the field of digital technologies. The absence of appropriate laws and regulations can create legal uncertainties and risks for businesses and citizens, complicating their participation in digital projects.

Overcoming these obstacles and challenges requires a comprehensive approach, including investments in infrastructure, training and development of personnel, development of an appropriate legal framework, as well as conducting informational campaigns and working to change cultural attitudes. This will enable developing countries to effectively use the potential of digital technologies to improve the quality of life and achieve sustainable development.

Impact of Digitalization on Tax Collection, Control, and Administration Processes

Evaluating the effectiveness of digital tools in improving the processes of tax collection and control is a significant aspect of contemporary tax policy. In recent years, the use of digital technologies has become an integral part of the tax systems of many countries, based on their potential to enhance efficiency, reduce administrative costs, and combat tax evasion.

One of the key aspects of assessing the effectiveness of digital tools in tax collection and control is their ability to automate and optimize the processes of collecting, processing, and analyzing tax information. Automated systems significantly reduce the time required for tax reporting, decrease the likelihood of errors, and expedite data processing.

Furthermore, digital tools provide more effective control over compliance with tax obligations. Analytical tools based on artificial intelligence and machine learning enable the identification of potential cases of tax violations and optimize audit processes by directing resources to inspect entities with the highest risk.

An important aspect of evaluating the effectiveness of digital tools is their ability to reduce tax losses and evasion. The use of digital technologies, such as electronic payments, digital platforms for online trading, and electronic monitoring systems, helps improve transparency and reduce opportunities for concealed operations and tax evasion.

For a comprehensive evaluation of the effectiveness of digital tools, it is necessary to conduct an in-depth analysis that includes assessing their impact on economic growth, the level of tax revenue collected, taxpayer satisfaction, as well as the cost of implementation and support of these tools.

Thus, evaluating the effectiveness of digital tools in improving tax collection and control processes requires a holistic approach and consideration of various aspects and indicators to maximize benefits for the state, business, and society as a whole.

Analysis of changes in the work of tax authorities and control tools due to digital transformation reveals significant changes occurring in the taxation sector under the influence of modern information technologies. Digital transformation significantly impacts the ways of collecting, analyzing, and monitoring tax information, as well as the efficiency of tax authorities. Key aspects of the analysis of changes include:

Process Automation: The introduction of digital technologies allows for the automation of many processes in tax authorities' work, from collecting and processing tax data to resource allocation and identifying tax violations. This reduces the need to manually perform routine tasks, speeds up processes, and decreases the likelihood of errors.

Data Analytics: Digital transformation enables tax authorities to use modern data analysis methods, such as machine learning and artificial intelligence algorithms, to identify discrepancies and anomalies in tax reporting. This enhances control efficiency and allows for more accurate detection of tax violations.

Electronic Declaration and Payments: Digital transformation facilitates the transition to electronic declaration and payments, simplifying procedures for taxpayers and reducing administrative costs for tax authorities. This also increases transparency and reduces the likelihood of errors.

Improved Interaction with Taxpayers: Digital transformation allows tax authorities to improve communication with taxpayers through electronic communication channels, online consultations, and interactive portals. This facilitates more efficient information exchange and resolution of issues.

Combatting Tax Fraud: Digital transformation provides tax authorities with new tools to combat tax fraud and tax evasion. This includes using data analytics to detect anomalies, monitoring financial transactions, and automating audit processes.

Analyzing these changes helps to highlight the advantages of digital transformation for tax authorities, but it also requires attention to data security issues, protection of personal information, and ensuring accessibility and equity for all taxpayers.

CONCLUSION

In concluding the article on the analysis of the impact of digitalization on the effectiveness of tax administration in developing countries, the importance of integrating modern digital technologies into the work of tax authorities to improve the efficiency and transparency of the tax system is emphasized. Developing countries face unique challenges in the field of taxation, such as a high level of informal economy, limited resources, and weak infrastructure.

However, digital transformation offers the potential to solve many of these problems. The implementation of modern information technologies significantly enhances the processes of tax collection, analysis, and monitoring of tax information, reduces administrative costs, increases transparency and fairness in taxation, and reduces opportunities for tax evasion and fraud.

It is important to note that successful digitalization of tax administration requires a comprehensive approach and attention to various aspects, including technical, organizational, legal, and cultural factors. Additionally, special attention must be given to data security and the protection of taxpayers' personal information. Overall, the analysis of the impact of digitalization on the effectiveness of tax administration in developing countries confirms that digital technologies are a powerful tool for improving the tax system and contribute to achieving goals of economic development and social justice.

For maximum impact, it is necessary to continue developing and improving the use of digital technologies in the tax sector, taking into account the specific needs and conditions of developing countries.

REFERENCES

1. Gorshkova N. V., Ksenda V. M., Grigorenko I. V. The Impact of Digital Technologies of Tax Administration on Increasing the Inclusiveness and Sustainability of Economic Development //New Technology for Inclusive and Sustainable Growth: Perception, Challenges and Opportunities. – Singapore : Springer Singapore, 2022. – C. 223-234.
2. Martínez-Vázquez J., Sanz-Arcega E., Martín J. M. T. Tax revenue management and reform in the digital era in developing and developed countries //Research Handbook on Public Financial Management. – Edward Elgar Publishing, 2023. – C. 202-225.
3. OO A. M., Adegbie F. F. Effects of information technology on effective tax assessment in Nigeria //Journal of Accounting and Taxation. – 2020. – T. 12. – №. 4. – C. 126-134.
4. Martínez Y. U., Arzoz P. P., Arregui I. Z. Tax collection efficiency in OECD countries improves via decentralization, simplification, digitalization and education //Journal of Policy Modeling. – 2022. – T. 44. – №. 2. – C. 298-318.
5. Audu S. I., Ishola K. Digital economy and tax administration in Nigeria //GSJ. – 2021. – T. 9. – №. 9. – C. 1251-1262.
6. Onyedika A. V., Modebelu M. N. Digitalization and Effective Tax Administration in Nigeria.
7. Yusuf A. O. Digitalization of Tax Administration and Performance of Kwara State Internal Revenue Service : дис. – Kwara State University (Nigeria), 2022.
8. Nazarov M. A., Mikhaleva O. L., Chernousova K. S. Digital transformation of tax administration //Digital Age: Chances, Challenges and Future 7. – Springer International Publishing, 2020. – C. 144-149.
9. Wadesango N., Chibanda D. M., Wadesango V. O. Assessing the impact of digital economy taxation in revenue generation in Zimbabwe //Academy of Accounting and Financial Studies Journal. – 2020. – T. 24. – №. 3. – C. 1-11.
10. Pitić G. et al. Digitalization of the tax administration in Serbia //Ekonomika preduzeća. – 2019. – T. 67. – №. 1-2. – C. 131-145.
11. Yakhshiboyev R. E., Kudratillayev M. B., Siddikov B. N. Forschung von innovativer ausrüstung für die diagnose von magen-darm-erkrankungen //International Bulletin of Applied Science and Technology. – 2023. – T. 3. – №. 3. – C. 100-105.
12. Яхшибоев Р. Э., Атаджанов Ш. Ш., Туфлиев К. Б. ЭКОНОМИЧЕСКИЙ АНАЛИЗ ВЛИЯНИЯ ПРОФИЛАКТИЧЕСКИХ ПРОГРАММ НА СНИЖЕНИЕ РАСХОДОВ НА ЛЕЧЕНИЕ ХРОНИЧЕСКИХ ЗАБОЛЕВАНИЙ: КЕЙС-СТАДИ НА ОСНОВЕ СТРАН С РАЗВИТОЙ И РАЗВИВАЮЩЕЙСЯ МЕДИЦИНСКОЙ СИСТЕМОЙ //Innovations in Science and Technologies. – 2024. – T. 1. – №. 1. – C. 43-51.
13. Apsilyam N. M., Shamsudinova L. R., Yakhshiboyev R. E. THE APPLICATION OF ARTIFICIAL INTELLIGENCE IN THE ECONOMIC SECTOR //CENTRAL ASIAN JOURNAL OF EDUCATION AND COMPUTER SCIENCES (CAJECS). – 2024. – T. 3. – №. 1. – C. 1-12.

14. Атаджанов Ш. Ш., Яхшибоев Р. Э. ИННОВАЦИОННЫЕ МОДЕЛИ ОПЛАТЫ В МЕДИЦИНСКОМ СТРАХОВАНИИ: ОЦЕНКА ЭФФЕКТИВНОСТИ И УСТОЙЧИВОСТИ СИСТЕМЫ //Innovations in Science and Technologies. – 2024. – Т. 1. – №. 1. – С. 52-60.
15. Кудратиллаев М., Яхшибоев Р. ЭКОНОМИЧЕСКАЯ МОДУЛЯЦИЯ ЭКОЛОГИЧЕСКОЙ ОБСТАНОВКИВ РЕГИОНАХ //Innovations in Science and Technologies. – 2024. – Т. 1. – №. 2. – С. 99-102.
16. Эшмурадов Д. Э., Элмурадов Т. Д., Саидрасулова Х. Б. АНАЛИЗ ЭКОНОМИЧЕСКОЙ ЭФФЕКТИВНОСТИ, ОБУСЛОВЛЕННОЙ ВНЕДРЕНИЕМ ЗОНАЛЬНОЙ НАВИГАЦИИ В РЕСПУБЛИКЕ УЗБЕКИСТАН //Актуальные аспекты развития воздушного транспорта (Авиатранс-2018). – 2018. – С. 88-92.
17. Ugli A. O. K., Elmuradovich E. D., Mirxamidovna T. N. REVOLUTIONIZING AIR TRAFFIC MANAGEMENT: THE ROLE OF MULTI-AGENT SYSTEMS IN IMPROVING EFFICIENCY AND SAFETY //Science and innovation. – 2023. – Т. 2. – №. A4. – С. 227-230.