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# THE IMPORTANCE OF DIGITAL TRANSFORMATION IN LOCAL GOVERNMENT

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**Abstract**

This article presents the importance of digital transformation in local government, highlighting the essence of digital transformation, structural changes in local government, the relationship between them, the institutional and economic impact of digital transformation on local government, global trends in digital transformation, stages of digital transformation and their impact on local government, a system of indicators for assessing the effectiveness of local government, and changes in quality indicators in the local government system as a result of digital transformation.

**Key words**

digital economy, digital transformation, digital management, digital revolution, structural changes, trend, efficiency, indicators, quality indicators.

## INTRODUCTION

Local government bodies are the most important link between the state and society, and their activities directly affect the daily life of the population, the quality of social services, and the level of regional development. Therefore, the introduction of digital transformation in the local government system is becoming one of the priority areas for implementing structural changes in public administration. The use of e-government, digital services, open data, and artificial intelligence technologies at the local level allows simplifying management processes, reducing the human factor, and increasing the efficiency of decision-making.

Digital Transformation is the most important strategic direction of economic, social and governance systems today. Its essence is expressed not only in the introduction of new information and communication technologies, but also in the reorganization of entire institutions, organizations and business processes in accordance with the requirements of the digital environment. Digital

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transformation covers all levels of society, namely public administration, business, education, healthcare and local government systems. International organizations define digital transformation as a process aimed at re-thinking society, accepting data as a strategic resource and using digital evidence in decision-making. According to the OECD, digital transformation is "a process of rethinking the way the state delivers value to society through data and innovation" [1]. Thus, it represents not only technical modernization, but also a profound change in social institutions.

LITERATURE REVIEW

Authors studying digital transformation interpret it as a practical manifestation of the "fourth industrial revolution". In this process, innovations such as artificial intelligence, big data, cloud computing, Internet of Things (IoT) and blockchain technologies are becoming an integral part of economic and management activities. Therefore, digital transformation includes not only technological innovation, but also institutional development and changes in organizational culture.

M. Mazzucato [2] is one of the most influential contemporary economists in the field of digital economy and innovation policy, who analyzed the concept of digital transformation from the perspective of value creation relations between the public and private sectors. In his opinion, "the innovation process in the digital economy is not shaped solely by market mechanisms; on the contrary, it emerges as a result of active state policy. The state's task is to support new technologies, invest in scientific research, and ensure the social efficiency of the digital economy." Mazzucato sees the state not as a mere "regulator," but as an "active entrepreneur." Thus, he opposes the monopolization of innovation in the private sector and emphasizes that digital transformation should be implemented through institutions that serve the public interest.

Klaus Schwab [3] in his book "The Fourth Industrial Revolution" interprets the digital transformation as a new stage of human development. The concept of the "fourth industrial revolution" is central to his theory. According to Schwab, "this revolution, unlike previous industrial stages, is changing not only the methods of production, but also the life, work and role of man in society. The combination of digital technologies, namely artificial intelligence (AI), robotics, the Internet of Things (IoT), big data, 3D printing, biotechnology and blockchain, has brought society to a new stage of "technological humanity". Thus, Schwab assesses the digital transformation not only as an economic, but also as a civilizational change. M. Castells [4] in his famous work "The Rise of the Network Society"

deeply explained the social and cultural essence of the digital transformation. In his opinion, "the basic structure of society in the 21st century is expressed in the form of a "network society". In this society, economic and social activity is decentralized and carried out through information networks, and information and innovation become the main resources. In the digital environment, the center of power shifts to the ability to manage information, that is, whoever can control the flow of information will have an economic and political advantage".

The GovTech Maturity Index report developed by the World Bank [5 ] interprets digital transformation as a process associated with the structural reorganization of public administration. The report indicates that the introduction of digital platforms, data-based decision-making and e-services in local government bodies is one of the main conditions for increasing the effectiveness of territorial development.

UNDP [6] studies emphasize that digital transformation, combined with a people-centered governance model, serves to increase citizen participation, social inclusion and accountability at the local level.

Dunleavy et al. The concept of "Digital Era Governance" developed by [7] interprets digitalization as a new stage of public administration, creating a theoretical basis for the redistribution of functions and integration of services in local government.

R. Heeks [8] puts forward practical conclusions for local government systems, emphasizing that the success of digital transformation depends more on institutional capacity, personnel skills and organizational culture than on technological solutions.

DISCUSSION AND RESULTS

In scientific research, it is customary to divide digital transformation into three main stages:

technological digitization (Digitization) - information and documents are transferred to electronic format, data are stored in digital form;

digitalization (Digitalization) - current processes are automated using digital technologies, that is, a "paperless management" system is created;

complete digital transformation (Digital Transformation) - management models, decision-making systems and the institutional structure of the organization are rebuilt in accordance with the requirements of the digital environment.

These stages provide a certain consistency. In the first stage, data is transferred to digital form, in the second stage, activities are automated through them. In the

third stage, a new management model and an innovative organizational structure are created based on data.

The impact of digital transformation on local governance is not limited to technological innovation, but also reshapes the institutional, economic and social structure of governance. As a result of this process, instead of traditional hierarchical governance models, a new system based on data, open to public participation, based on the principles of efficiency and accountability is formed. For local authorities, digital transformation is not only a means of optimizing the service delivery process, but also an opportunity to create a new culture of relations with citizens. In this regard, the implementation of the digital economy in practice at the local level determines the effectiveness of territorial development strategies. At the same time, the impact of digital transformation is multifaceted, manifesting itself at the infrastructural (technological), institutional (organizational), economic (resources and innovation), social (participatory governance) and strategic (sustainable development) levels. These stages function as an interconnected system, that is, a governance institution formed on the basis of technology and information infrastructure ensures economic efficiency, while social participation guarantees openness and accountability.

The impact of digital transformation on the local governance system is a continuous and multi-stage process, starting with a technological basis and ending with social and strategic results. The first stage - the infrastructural mechanism - creates a technical basis that ensures the collection and processing of digital data. The next institutional mechanism adapts the internal structure of governance to the digital environment, forms a culture of "smart governance" and data-based decision-making. Through the economic mechanism, digital technologies are introduced into financial, tax and investment processes, increasing the efficiency of using state resources.

The social mechanism also ensures interactive communication of digital governance with citizens, strengthens public control through electronic participation and collaboration (e-participation, co-creation). As a result of these stages, openness, accountability and innovative approaches become a priority in the local governance system. At the final stage, an effective governance model based on sustainable territorial development, social justice and citizen consent is formed as a strategic result of digital transformation. Thus, digital transformation is turning local governance into a new driver of economic development not only through technological, but also through institutional changes.

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According to McKinsey Global Institute analyses, "states and companies that have fully implemented digital transformation have achieved an average increase in efficiency by 30-40 percent. These figures show that digital modernization is of great importance not only from the point of view of technological, but also from the point of view of economic efficiency" [9].

The local governance system is the most important field of practice for transformation processes in the digital economy. The reason is that local government, as the closest government institution to citizens, determines the quality and speed of service delivery. Therefore, implementing digital transformation at the local level is crucial for the competitiveness and efficiency of the entire public administration system. As the World Bank notes, "digital government platforms, through their contribution to local development, increase citizen trust, ensure accountability and transparency. In this process, a culture of working with data becomes the main tool for making management decisions" [10].

Systematic work is also being carried out in this direction in Uzbekistan. The "Digital Uzbekistan - 2030" strategy, the Law "On Electronic Government" and the regional "Smart City" programs provide for the integration of information systems in local authorities, the transfer of services to an online format, and the establishment of interactive dialogue with citizens.

As a result, local government will begin to function not only as an administrative control function, but also as a platform supporting innovative development. Thus, regional economic activity will be managed on the basis of rapid data analysis and forecasting.

The development process of digital transformation is not a reform that will be implemented all at once, but a systematic process that will be formed gradually. Each of its stages is characterized by the emergence of new functions, new working methods, and new institutions in the local government system.

First, at the stage of digitization, information resources are transferred to the electronic environment and data processing is automated.

In the subsequent stages, comprehensive governance models are formed, encompassing data flows, analytical systems, and citizen participation. This will transform the traditional functions of local government, transforming it into a data-driven decision-making system. From this point of view, the principle of its phased development is of great importance in analyzing digital transformation. Because each stage ensures the implementation of certain institutional changes, the introduction of new information technologies, and the establishment of new forms of relations between citizens and the state. For example, if at the stage of

digitization administrative processes are simplified through electronic document flow and online services, at the stage of digital transformation these processes will turn into a fully integrated and predictive management system.

When the stages of digital transformation are implemented sequentially, a qualitatively new level is achieved in the activities of the local government system. If digitization is aimed at transferring data to an electronic environment, then in the subsequent stages, effective use of data, decision-making and forecasting systems are formed on their basis. Thus, local government becomes not just a body performing administrative functions, but an intellectual center managing economic and social development. In this process, the harmony of digital infrastructure, institutions open to innovation and citizen participation is the main decisive factor. In the conditions of the digital economy, assessing the effectiveness of the local government system is not limited to administrative or financial indicators. Today, as a result of digital transformation, qualitative indicators of governance are increasingly being assessed through the ability to manage data, the speed of implementing innovative solutions, the level of citizen participation and the index of satisfaction with services. Therefore, instead of the traditional resource and product flow model (Leontiev model), the principle of data-driven management is taken as the basis for assessing the effectiveness of local governance. This approach ensures the efficiency, openness and accountability of governance processes and increases citizens' trust in public services.

A number of indicators are used in international practice to measure the impact of digital transformation in local government activities. For example, the OECD Digital Government Index assesses the digital efficiency of public administration in five areas: open data policy, digital innovation, public participation, data security and digital skills. The UN e-Government Development Index (EGDI) also takes into account the electronic level of public services, telecommunications infrastructure and human capital indicators. By applying these models at the local level, it is possible to accurately assess the level of digital transformation of government activities, the efficiency of services and population satisfaction.

From a scientific point of view, the system of indicators for measuring the digital efficiency of local government includes the following four main blocks:

infrastructure indicators - the availability of ICT infrastructure, internet coverage, data centers and digital service platforms;

institutional indicators - the potential for implementing digital policy in local government bodies, the level of "smart governance", the digitalization of the regulatory framework;

social indicators - the activity of citizen participation, the level of use of electronic platforms, the use of open data and public trust;

economic indicators - the economic efficiency of public services, time and resource savings, the share of electronic payments, the share of digital investments.

Together, these indicators make it possible to determine the level of digital sustainability of local government. Scientific studies show that the development of digital infrastructure and the introduction of a culture of data-driven management accelerate regional economic growth, as the flow of data makes the decision-making process scientific and rational.

In practice, it is advisable to introduce indicators such as the Digital Governance Efficiency Index (DGEI) or a national-level index to assess digital efficiency. These indices will allow analyzing the impact of the digital economy across regions, identifying weak areas, and shaping competitive governance models.

“National-level indicators of e-government development in Uzbekistan show a steady growth trend. As of 2024, the country’s EGDI index is 0.7999 (63rd place), and the e-Participation index is 0.6986 (53rd place). Internet access coverage was 83.3 percent at the beginning of 2024” [11]. A total of nearly 41.6 million applications were registered through the Single Interactive Public Services Portal, including through the portal, the Public Services Center, and the mobile application. The "Digital Uzbekistan - 2030" strategy sets goals for gradually increasing the share of electronic services, mobile access, and transactional services.

As a result, digital transformation requires the creation of a new system of indicators that will allow for a precise measurement of the effectiveness of local governance. This system should cover not only technological changes, but also economic, social and institutional reforms. Thus, as a result of digital transformation, the indicators of the effectiveness of local governance are changing from the traditional “number of services” to the “level of innovative impact”. This makes it urgent to introduce a monitoring and evaluation platform based on digital indicators for each region in the future.

CONCLUSION

The proposed indicator system differs from existing international assessment models in that it covers not only the effectiveness of public administration, but also economic, social and institutional changes at the local level. The main advantage of

this system is that it is based on the principle of an integrated approach. It assesses not only technological infrastructure, but also digital skills, innovative potential, citizen participation and open data policy. This will allow for a deep analysis of the digital potential of local authorities, optimization of resource allocation and improvement of the quality of governance.

The second advantage is that this model allows for the creation of an "integrated indicator system" adapted to local conditions. That is, each block (infrastructural, institutional, economic and social) acts as a system that complements and influences each other. This makes it possible to assess the results of governance not only in terms of outcome indicators, but also in terms of process efficiency and social impact. In other words, the proposed system provides multifaceted and real-time monitoring of the effectiveness of digital governance, which will contribute to the rapid adjustment of local policies, increasing the level of transparency and accountability.

## LIST OF REFERENCES USED:

1. OECD (2020). Digital Government Index: six Dimensions of Digital Transformation.

2.Mazzucato, M. (2018). The Value of Everything: Making and Taking in the Global Economy. London: Peng. Books.

3.Schwab, K. (2017). The Fourth Industrial Revolution. Geneva: World Economic Forum.

4.Castells, M. (2010). The Rise of the Network Society. 2nd ed. Oxford: Blackwell Publishing.

5.World Bank. (2021). GovTech Maturity Index: The State of Public Sector Digital Transformation. Washington, DC: World Bank.

6.UNDP. (2021). Digital Transformation in Public Sector. New York: UNDP.

7.Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2006). Digital Era Governance. Oxford: Oxford University Press.

8.Heeks, R. (2018). Information and Communication Technology for Development. London: Routledge.

9.McKinsey Global Institute (2023). The Digital Economy as a Driver of Global Growth.

10.World Bank (2023). E-Government for Resilient Development.

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11.EGOVKB | United Nations / https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/186-Uzbekistan.