

Digital technologies in public administration

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UDC: 350; **EDN:** DGDFCC; **JEL:** L86, M15, M38, M48

Keywords: digitization, digital technologies, digital transformations, public administration, public administration, public service, government, e-government, latest technologies, information technologies, e-government development index

Թվային տեխնոլոգիաները հանրային կառավարման մեջ

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Գրիգորյան Հարություն Ա.

ՀՊՏՀ մարքեթինգային հատորակցությունների ֆակուլտետի մագիստրանտ (Երևան, ՀՀ)

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Ամփոփագիր. Հոդվածում վերլուծվել է հանրային կառավարման մեջ թվային տեխնոլոգիաների կիրառման փորձը, քննարկվել է Հայաստանի Հանրապետության հանրային կառավարման համակարգում թվային տեխնոլոգիաների կիրառման վիճակը: Մշակվել են առաջարկություններ ՀՀ հանրային կառավարման մեջ թվային տեխնոլոգիաների ներդրման համար: Թվային տեխնոլոգիաների ոլորտը մեր տնտեսության ամենաարագ զարգացող ոլորտն է: Բարձր տեխնոլոգիաների զարգացումը որոշիչ դեր է խաղում պետության մրցունակության, բնակչության անվտանգության և կենսամակարդակի բարձրացման գործում: Թվայնացումը, նորարարությունը և նորագույն տեխնոլոգիաները Հայաստանի կառավարության կողմից դիտվում են որպես կարևոր գործիք հանրային կառավարման, բարենպաստ բիզնես միջավայրի և տնտեսական աճի ապահովման գործում:

Հանրային կառավարման թվային վերափոխումը ոչ միայն պետական գործառնությունների առանձին գործընթացների ավտոմատացումն և օպտիմալացումն է, այլ նաև հանրային ծառայությունների մատուցման, այս կամ այն ժամանակակից ՏՀՏ-ների ներդրումն ու օգտագործումը պետական մարմինների գործունեությունն ապահովելու համար:

Թվային փոխակերպումը կոչված է որակապես փոխելու հանրային կառավարման բովանդակությունը, այդ թվում դրա անհատական ընթացակարգերը, կառավարման ցիկլի փուլերը, պետության գործառնությունները, դրանց կազմը և տեսակները, ընդ որում նման փոփոխությունները պետք է հանգեցնեն հանրային կառավարման որակական բարելավման, նվազեցնեն պետության միջամտությունն ու դերը, բարձրացնեն պետական իշխանության մարմինների գործունեության արդյունավետությունն ու արդյունքայնությունը: Ե՛վ Հայաստանում, և՛ արտասահմանյան երկրներում թվային փոխակերպումները դիտվում են որպես հանրային ծառայությունների մատչելիության և որակի բարձրացման խթան:

Հանգուցաբառեր՝ թվայնացում, թվային տեխնոլոգիաներ, թվային փոխակերպումներ, հանրային կառավարում, պետական կառավարում, պետություն-ծառայություն, կառավարություն, էլեկտրոնային կառավարություն, նորագույն տեխնոլոգիաներ, տեղեկատվական տեխնոլոգիաներ, էլեկտրոնային կառավարության զարգացման ինդեքս:

Цифровые технологии в публичном управлении

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Аннотация. В статье проанализирован опыт использования цифровых технологий в публичном управлении, проведен анализ состояния использования цифровых технологий в публичном управлении Республике Армения. Разработаны рекомендации по дальнейшему внедрению цифровых технологий в публичном управлении Республики Армения. Сектор цифровых технологий является самым быстрорастущим сектором нашей экономики. Развитие высоких технологий играет решающую роль в повышении конкурентоспособности государства, безопасности и уровня жизни населения. Цифровизация, инновации и новейшие технологии рассмат-

риваются правительством Армении как важный инструмент для обеспечения эффективной и репрезентативной системы публичного управления, благоприятной деловой среды и поступательного экономического роста. Цифровая трансформация публичного управления не просто автоматизация и оптимизация отдельных процессов при оказании государственных функций, в том числе при предоставлении государственных услуг, внедрение и использование тех или иных современных ИКТ в интересах обеспечения деятельности государственных органов. Цифровая трансформация призвана качественно изменить содержание публичного управления, в том числе отдельные его процедуры, стадии управленческого цикла, государственные функции, их состав и типы, причем такое изменение должно приводить к повышению качества публичного управления: обеспечению большей обоснованности государственного вмешательства и снижению роли государства в целом, повышению результативности и эффективности деятельности органов государственной власти. И в Армении, и в зарубежных странах уже традиционно цифровая трансформация рассматривается прежде всего как драйвер повышения доступности и качества государственных услуг.

Ключевые слова: цифровизация, цифровые технологии, цифровая трансформация, публичное управление, государственное управление, государство-сервис, правительство, электронное правительство, новейшие технологии, информационные технологии, индекс развития электронного правительства

Digitization is one of the global trends in the development of public administration, which is related to increasing the efficiency of the activities of state bodies. Digitization is a driving force of changes. This is the reason for the interest of international organizations in the assessment of the digitization of public administration, the development of new indicators characterizing the process and indexes of international comparisons [1, pp. 28–40].

To date, the concept of "digital transformation" has not been clearly defined [2]. Broadly speaking, digital transformation refers to changes in all aspects of society related to the use of digital technologies. Digital transformation is a trend characteristic of various branches of the economy and social sphere, which allows to radically improve performance or expand the scope of the organization's activities [3], Digital transformation strategies are often aimed at the transformation of products, processes, organization of activities based on the use of innovative technologies [4], creating new opportunities to communicate with consumers and meet their needs.

The main risks of implementing digital technologies are:

- loss of control in the most important areas of state administration,
- unauthorized use of personal data,
- the possibility of violation of human rights during the adoption of administrative decisions by an automated system,
- organizational risks, authorities' resistance to the transition from departmental informatization to platform (supra-departmental) solutions (risk of loss of control, fear of their data being open) [5, p. 58].

The potential use of digital technologies can significantly reduce state intervention in economic and social processes, increase the efficiency of public administration.

The spheres of public administration - state administration, local self-government, the numerous

socio-political organizations formed and operating along with the establishment of civil society, for the most part perform many important functions, the great efficiency of which can currently be ensured by digital technologies, modeling of various administrative processes and decisions based on this, due to the constant control of the process of acceptance and implementation [6, pp. 9-25]. Digital control is an important way to ensure the implementation of management decisions and to evaluate the results.

The main goal of the transformations of the public administration system is the formation of a more established state. Currently, digital transformations in the field of public administration are aimed at ensuring the transition from "Electronic government" (e-Government) to "Digital government". Electronic government (e-Government) is one of the manifestations of digital government and refers to the provision of government services in the Internet environment through telecommunication technologies. In the case of "e-government", information technologies are used to automate various actions performed by public administration bodies. Digital government is all kinds of applications of information and telecommunication technologies in the public sphere. In "Digital Government" information technologies are used to increase the efficiency of the state administration system [7, pp. 32-38]. Digital transformation of public administration optimizes administrative functions, increases the controllability of public administration processes, etc.

Electronic management is a broader concept that includes all levels of management. At the government level, e-governance is defined as the use of information and communication technologies in governance for the purpose of providing public services, improving administrative efficiency, and spreading democratic values and mechanisms.

Digitization of public administration is the activity of state power bodies in the regulation of public relations and economic spheres through information communication technologies. Currently, digitalization of public administration takes place in the form of digital transformation [8, p. 8].

Dozens of studies dedicated to e-government by the United Nations have been conducted, and it has been substantiated that there is no alternative to the formation and improvement of e-governments.

Currently, the introduction of digital technologies takes place both at all levels of economic activity and at the state level. The use of information and communication technologies in the public administration system makes it possible to control the services provided by public service providers in a larger volume and to provide them to the population and the business sector on time.

Under the influence of digital technologies, the concept of "state" changes, the term "state-service" appears, which includes a set of digital state institutions that provide electronic public services to the population and businesses using information and telecommunication technologies [9, pp. 32-38]. A world community that successfully implements digital technologies in all spheres of society, including public administration, gains the loyalty of its citizens. However, there is a disparity between countries with different levels of digitization of public administration. In order to solve this problem, it is necessary to develop recommendations for the successful implementation of digital technologies at the international level, and at the level of an individual country, to analyze the current state of digitization of public administration, the threats and problems hindering digitalization, to develop and to finance projects and action plans for the implementation of digital technologies in the public administration system.

Digitization is an important component of the quality of life of citizens and the quality of public service delivery. The 2020-2025 RA Digitization Strategy plan was prepared by the government of the Republic of Armenia, which aims to ensure the digital transformation of government, economy and society. This digitization strategy is coordinated with both the Public Administration Reform Strategy and the SDGs. The adoption and implementation of the comprehensive agenda of radical reforms of the public administration system is a priority as a guarantor of the key importance ensuring the country's security and sustainable development.

The strategy formulates for the first time the unified and comprehensive reform agenda of the public administration of Armenia, according to which the value bases of the public administration

system have been reformulated and the institutional capacities, necessary for the continuous modernization of the system, have been provided through targeted policy actions [10, p. 6]. There have been improvements in public services in the fractious country. Different structures, different ministries have created joint certain offices, joint structures that have improved the quality of services.

The digital development of government services is currently at different stages in different departments. Digitization was carried out according to different principles, according to the strategic priorities of governments, the digital readiness of individual departments, the priorities of digitalization of individual services, sometimes also the priorities of international structures, as well as the demands and needs of citizens. This has led to the formation of several leading circles in the field of digitization, which are distinguished by their rather well-developed capabilities in this field. At the same time, the level of digitalization development in a number of departments is extremely low.

Since the 90s, the process of introduction of e-governance has started in Armenia. The Action Plan adopted by the RA Government in 2008 signaled the beginning of the formation and development of the electronic government system, as a result of which the Electronic Government Tools System with online services (www.e-gov.am) was introduced. The platform consolidates electronic systems of real estate (www.ecadastre.am), state payments (www.e-payments.am), electronic registration of organizations (www.e-register.am), electronic submission of tax reports (file-online.taxservice.am), the unified platform for electronic requests (www.e-request.am). There are also other systems that support construction permit processes (www.e-permits.am) and the unified electronic register of RA licenses (www.e-license.am). From April 1, 2020, in order to ensure the transparency and accountability of the Government's activities, the platform of the National Human Rights Strategy is available in the field of Human Rights Protection (www.e-rights.am) [11, p. 6].

Since 2021, with the support of the World Bank, innovative e-Government projects have been launched. Moreover, although some digital transformation initiatives were designed to achieve the goals set out in the 2030 Agenda, have already been implemented. Thus, the "Electronic Health Care in Armenia" system uses the latest technologies to transmit the necessary data related to human health anywhere, contributing to informed medical decision-making and reducing the risks of

clinical errors. This system contributes to Armenia's achievement of SDG 3rd and 10th goals.

Digitization has also started in the agricultural sector. The government is using drones and satellite technology to collect data and statistics that will be needed to make decisions on the 2nd and 8th points of SDG.

One of the next steps is the introduction of an e-justice system that will contribute to the implementation of the 16th goal of SDG. It should be noted that the 1st goal of the 2021-2023 action plan arising from the 2019-2023 strategy of judicial and legal reforms envisages the introduction of a unified e-justice system and the creation of a unified e-justice platform and ensuring the availability and modernization of electronic databases. The process of implementing the system is complex and phased, as it is used by various bodies from such subsystems as e-management systems of courts, police, penitentiary, enforcement service, e-management systems of probation service, bankruptcy administrators, e-criminal case and many other systems. It is expected to ensure the harmonization of the work of the bodies of the justice sector, the adoption of unified approaches to the implementation of programs in this field, and the implementation of the interoperability of the systems operating in the bodies. This will allow to exclude fragmentary solutions and introduce a single unified mechanism through the implementation of comprehensive planning.

Currently, state administration bodies are conducting an inventory process of applicability of existing digital systems and platforms, the purpose of which is to ensure their interoperability. According to the strategic vision of RA public

administration reforms, it is planned to carry out the reforms in the following stages: policy development and coordination, public service and human resources management, state service delivery, accountability and benevolence, institutional and functional modernization. As a result, it is expected to form a competitive public administration system.

Now, let's look at the most comprehensive and popular rating of the level of use of digital technologies in public administration, the E-Government Development Index (EGDI) used by the United Nations. The e-governance development index is a comprehensive indicator that assesses the readiness and capabilities of public administration structures to provide public services to citizens based on information and communication technologies (ICT).

The E-Government Study has been published biennially since 2003 by the United Nations Department of Economic and Social Affairs. Armenia is represented in the Asia regional and West Asia sub-regional groups. The e-Government Development Index measures a country's level of e-government development, including website design features, infrastructural and educational access, with the aim of reflecting the extent to which countries are using information technology to increase citizen inclusion, participation and access to services.

The UN member states are included in the study, which are classified by three main components:

1. Online Service Index — OSI,
2. Telecommunication Infrastructure Index — TII,
3. Human Capital Index — HCI [12] :

The dynamics of RA e-government development index for 2018-2022 [12, 13, 14]

Year	Position	EGDI Level	EGDI	OSI	TII	HCI
2018	87	HIGH	0,5944	0,5625	0,4660	0,7547
2020	68	HIGH	0,7136	0,7	0,6536	0,7872
2022	64	HIGH	0,7364	0,7221	0,6925	0,7945

Over the years, Armenia has shown a tendency to improve its positions in terms of the observed indicators, however, this positive dynamic was not enough to make a significant progress compared to comparable groups of countries.

According to the results of 2020, Armenia has made progress in this index compared to 2018, improving its global ranking by 19, and in 2022 by 23 positions. The progress is due to improved scores on all 3 subcomponents. In 2018, 2020, 2022 Armenia has been ranked in the group of countries with "High E-Government Development" (HV) and is on the verge of moving to the very high EGDI group.

The UN also calculates the E-Participation Index (EPI) separately, which gives a broad picture of the activity of the E-Government about the information provided to the citizens by the government, "government-citizen" informational relations and the citizens' participation in the government work.

It is an additional index that focuses on evaluating the usability of online services by the government to provide information to citizens, especially: electronic information dissemination (E-information), electronic consultations (E-consultation), electronic decision-making (E-decision-making).

In 2020, the country recorded a significant improvement in the global ranking of this index by 46 positions compared to 2018. Armenia has been included in the group of countries with "Very high level of electronic participation", but in 2022 Armenia retreated by 7 positions. At the same time, Armenia is ahead of the global average level of this indicator, but is significantly behind the possible maximum (frontier) and lags behind the regional and sub-regional leaders.

Conclusion: It is possible to improve further the e-government process in Armenia. It is necessary to increase the number of services provided entirely electronically, expand the participation of companies in public procurement electronically, integrate all public services, improve the content of platforms providing public services and facilitate the use of platforms with the help of reference materials. The main goal of providing electronic services is to improve the provision of public services to users and make it accessible and convenient for every citizen.

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Сдана/Հանձնվել է՝ 26.03.2023

Рецензирована/Գրախոսվել է՝ 07.04.2023

Принята/Ընդունվել է՝ 14.04.2023