

Elektronische Regierung in Usbekistan: aktuelle Situation und Entwicklungsperspektiven

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Abstrakt. Der Artikel analysiert die schrittweise Entwicklung von E-Government in Usbekistan, seine rechtliche Unterstützung, die Art und Merkmale digitaler Transformationsprozesse, die Hauptgründe für die niedrigen Bewertungen im UN-E-Government-Index für 2018-2020 und identifiziert Prioritäten für Verbesserung der Situation.

Schlüsselwörter: E-Government, Internationales Rating des UN E-Government, Entwicklungsindex, Telekommunikationsinfrastruktur.

Electronic government in Uzbekistan: current situation and development prospects

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Abstract. The article analyzes the gradual development of e-government in Uzbekistan, its legal support, the nature and features of digital transformation processes, the main reasons for the low ratings in the UN e-Government Index for 2018-2020, and also identifies priorities for improving the situation.

Keywords: e-government, international rating of the UN e-government, development index, telecommunications infrastructure.

Introduction

The Electronic Government system is a single mechanism for the interaction of the state, citizens and businesses, as well as the state bodies themselves. Information and communication technologies are actively used in this mechanism: websites, information systems, databases integrated with each other. Simply put, e-government facilitates communication with government agencies, helps reduce queues, simplifies the process of obtaining certificates, certificates, licenses and other documents, helping all parties: government agencies, entrepreneurs, and ordinary citizens to work more efficiently.¹

According to the generalized community, the "Electronic government" system is "an innovative model of public administration that transforms the relationship of the state with civil society based on information technology".²

Uzbekistan started the systematic formation of e-government at the national level in the early 2000s, when the Decree issued on May 30, 2002 by the President of the Republic of Uzbekistan №3080 - "On further development of computerization and introduction of information and communication technologies" was signed.

The actual purpose of the Decree was the formation of an information and telecommunications infrastructure and computerization of state institutions for the deployment on this basis of a system for providing reference and registration services to the population using electronic state information resources and systems.

From that time to the present, the process of systematic transfer of state information systems to work in single interconnected infrastructure has been going on.

Within the framework of a single organizational, information and communication space, a system of high-quality provision of public electronic services to citizens and businesses has been created and is being developed. In addition, the created e-government infrastructure allows expanding of electronic interaction beyond the borders of the Republic of Uzbekistan.

The phased development of e-government in Uzbekistan, its legal support, the nature and features of the processes are presented in the table below.

Stages of formation and development	Basic legal documents	The nature and features of development
1st stage (ICT development in early 2000).	<ul style="list-style-type: none"> - Law of the Republic of Uzbekistan "On electronic digital signature", from December 11, 2003, No. 562-II; - Law of the Republic of Uzbekistan "On electronic document management" from April 29, 2004, No. 611-II; - Law of the Republic of Uzbekistan "On Electronic Commerce" from April 29, 2004, No. 613-II; - Law of the Republic of Uzbekistan No. 13 "On electronic payments" from December 16, 2005; - Decree of the President of the Republic of Uzbekistan "On the creation of a public educational information network of the Republic of Uzbekistan" dated September 28, 2005, No. PP-191; - Decree of the President of the Republic of Uzbekistan "On additional measures for the further development of information and communication technologies" dated 08.07.2005, No. PP-117; - Decree of the President of the Republic of Uzbekistan "On the further development of computerization and the introduction of 	Implementation of major government projects. Greater orientation of state bodies to their own needs. Ideas about informatization of processes and electronization of services.

	information and communication technologies" dated May 30, 2002, No.UP-3080.	
2nd stage(Further development in 2012-2016).	<ul style="list-style-type: none"> - Law of the Republic of Uzbekistan "On the openness of the activities of public authorities and administration" dated 05.05.2014 No. ZRU-369; - Law of the Republic of Uzbekistan "On Electronic Government" dated 09.12.2015; - Decree of the President of the Republic of Uzbekistan "On measures for the further introduction and development of modern information and communication technologies"dated March 21, 2012, No. PP-1730; - Decree of the President of the Republic of Uzbekistan "On measures to implement the investment project to establish a National Geographic Information System" dated September 25, 2013,No. PP-2045; - Resolutions of the Cabinet of Ministers "On measures to introduce a system for assessing the state of development of information and communication technologies in the Republic of Uzbekistan" dated December 31, 2013,No. 355; - Resolutions of theCabinet of Ministers of the Republic of Uzbekistan "On measures of organization of the Centre for the Development of "electronic government" and the Center for information security at the Ministry of Development of Information Technologies and Communications of the Republic of Uzbekistan" dated September 16, 2013,No.250; - Resolution of theCabinet of Ministers of the Republic of Uzbekistan "Onthe Further Development of the Educational Network"ZiyoNET" No. 198 dated, July 10, 2013; 	<p>Development of telecommunications infrastructure, establish a nationwide automated information system. Openness of activities of public authorities and administration. Ensuring the security of information systems.</p> <p>Development of telecommunication technologies, networks and communications infrastructure in Uzbekistan, and establish complexes of information systems and databases of "Electronic Government" system as part of Comprehensive Program for the Development of theNational Information and Communication System of the Republic of Uzbekistan for the period 2013-2020.</p>
3rd stage (Active development in 2015-2018).	<ul style="list-style-type: none"> - Decree of the President of the Republic of Uzbekistan "On the Strategy of Action for the further development of the Republic of Uzbekistan" No. 4947, dated February 7, 2017; - Decree of the President of the Republic of Uzbekistan "About Creation of theMinistry for Development of Information Technologies and Communications of the Republic of Uzbekistan" No. UP-4702 dated February 4, 2015; - Decree of the President of the Republic of Uzbekistan "On the organization ofactivities of the Ministry for the Development of Information Technologies and Communications of the Republic of Uzbekistan" PP-2293 dated February 4, 2015; - Decree of the President of the Republic of Uzbekistan "About measures for further enhancement of procedure for rendering the state 	<p>Improving the organizational support for the development of e-government. Accelerated development of services in the field of information and communication technologies and deepening of electronic interaction between citizens and government bodies within the framework on the further development of the Strategy for Action the Republic of Uzbekistan.</p> <p>Goal: Improve its position in the UN E-Participation Index. Result: in 2016, scoring higher than the world average in e-Government Development Index</p>

	<p>services to subjects of entrepreneurship for the principle “One Window” No. PP-2412 dated September 28, 2015;</p> <p>- Resolution of the Cabinet of Ministers of the Republic of Uzbekistan “On further measures for implementation of the Law of the Republic of Uzbekistan “About the electronic government” No. 188 dated 06.03.2016;</p>	<p>(EGDI)index at 0.54335, Uzbekistan joined the group of countries with high level of e-government development. This allowed Uzbekistan to rank the 80th in the world, which is 20 positions higher than two years ago (100th in 2014).</p>
<p>4th stage (Strategic Development Program in 2018-2021).</p>	<p>Decree of the President of the Republic of Uzbekistan “On approval of the Strategy “Digital Uzbekistan-2030” No. UP-6079 dated October 05, 2020.</p>	<p>National Strategy for the development of e-commerce in the Republic of Uzbekistan within the framework of the Ready4Trade grant project.</p> <p>The Ready4Trade project is aimed at developing intraregional and international trade in five Central Asian countries by increasing the transparency of cross-border requirements, as well as improving cross-border e-commerce procedures.</p> <p>Further improvement of the quality of education in educational institutions through the introduction of new educational programs, modern pedagogical and smart technologies in the educational process (the formation of electronic modules and the introduction of distance learning); Ensuring the full digitalization of the state cadastre by 2021 and simplifying the procedure for registering property, etc.</p>
<p>5th stage (Competitive e-government with transition to digital government in 2022-2030).</p>	<p>Decree of the President of the Republic of Uzbekistan “On the development strategy of New Uzbekistan for 2022-2026” No. UP-60 dated January 28, 2022.</p>	<p>Development of the "E-Government" system, bringing the share of electronic public services to 100% and eliminating bureaucracy; modernization and creation of new digital services; ensuring a systematic and consistent process of developing digital economy, information, communication and innovative technologies;</p> <p>- improving the digital literacy of the population and training highly qualified personnel in the field of digital technologies; creating favorable conditions for the retraining of</p>

		personnel, popularizing methods of remote work, etc.
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Uzbekistan in the E-Government Ranking 2020

In 2020, the UN announced the next rating of e-Government. Uzbekistan in this rating took 87th place³. Compared with the previous year's e-Government Development (EGD) Index, Uzbekistan's position has been lowered by 6 points (81st place in 2018). Uzbekistan still holds 2nd position in EGD Index among the Central Asian countries. However, the main indicator that forms the rating - the EGD Index - has grown compared to the previous period. That is, if in 2018 the value of the Index was 0.6207, then in 2020 this indicator was 0.6665, thereby retaining the status of a country with a high level of e-government development.

For the main components of the ranking, we have the following indicators:

“Electronic Services” - 47th place with an index of 0.78 (-0.01);

“Human capital” - 90th place with an index of 0.74 (+0.01);

“Telecommunication infrastructure” - 84th place with an index of 0.47 (+0.14).

“Electronic participation” - 46th place with an index of 0.80 (+0.05) (+13 positions).

A positive result is the fact that in 2020 Uzbekistan ranked 46th in the E-services index with an index of 0.7824 and entered the top 50 countries in the world. In addition to the E-Government Development Index, the rating is assessed by the UN E-Participation Index (EPI). In 2020, Uzbekistan has improved its position in the EPI ranked 46th with 0.8095, which is 13 positions higher than the previous period (in 2018 it was 59th with an index of 0.7584) among 193 UN member countries.

The ranking also publishes the Open Government Development Index (OGDI), which measures the United Nations' access to open government data. According to this index, in 2020 Uzbekistan received the maximum score (1000), and country is among the 41 countries with a very high Open Government Development Index.

Below is a table of changes in the position of the Republic of Uzbekistan in comparison with the CIS countries and the former Soviet republics according to the EGDI and its indices (Table 1).

Table 1.

Change in the e-government development index

Year/ countries	Online Service Index		Human capital index		Telecommunication Infrastructure Index		Overall ranking		Place in the ranking	
	2018	2020	2018	2020	2018	2020	E-government development index*		2018	2020
Kazakhstan	0,8681	0,9235	0,8388	0,8866	0,5723	0,7024	0,76	0,84	39	29
Russia	0,9167	0,8126	0,8522	0,8833	0,6219	0,7723	0,80	0,82	32	36
Belarus	0,7361	0,7059	0,8681	0,8912	0,6881	0,8281	0,76	0,81	38	40
Georgia	0,6944	0,5882	0,8333	0,8717	0,5403	0,6923	0,69	0,72	60	65
Armenia	0,5625	0,7000	0,7547	0,7872	0,4660	0,6536	0,59	0,71	87	68
Ukraine	0,5694	0,6824	0,8436	0,8591	0,4364	0,5942	0,62	0,71	82	69

Azerbaijan	0,7292	0,7059	0,7369	0,7713	0,5062	0,6528	0,66	0,65	70	70
Moldova	0,7708	0,7529	0,7274	0,7432	0,4787	0,5683	0,66	0,69	69	79
Kyrgyzstan	0,6458	0,6471	0,7628	0,7873	0,3418	0,5902	0,58	0,68	91	83
Uzbekistan	0,7917	0,7824	0,7396	0,7434	0,3307	0,4736	0,62	0,66	81	87
Tajikistan	0,3403	0,3176	0,7002	0,7274	0,2254	0,3496	0,42	0,47	131	133
Turkmenistan	0,1319	0,1765	0,6626	0,6783	0,3011	0,3555	0,37	0,40	147	158

*This index is calculated using the following formula:

$$EGDI = 1/3 (OSI_{\text{normalized}} + TII_{\text{normalized}} + HCI_{\text{normalized}}),$$

OSI_{normalized} –Online Service Index;

TII_{normalized} –Telecom Infrastructure Index;

HCI_{normalized} – Human capital index;

As in the review noted, the provision of online services in Uzbekistan has improved significantly, despite limited infrastructure development.

The E-Government Development Index (EGDI) of Uzbekistan amounted to 0.66 (in 2018 - 0.62), which is higher than the global average of 0.60. The rating leader Denmark has this index of 0.97, the leader in Asian region of South Korea has 0.95, the leader in the Central Asian region of Kazakhstan has 0.84 (in 2018 it was 0.75).

Scientific analysis of the situation

According to the results of the UN Study 2020, the final ranking of the three components of the e-Government Development Index is negatively affected by key indicators of telecommunications infrastructure (123rd) and human capital (90th).

What factors contributed to the fall of the Republic of Uzbekistan in the E-Government Development ranking?

Within the framework of the scientific project “Improving the international ranking of Uzbekistan based on the analysis of indicators and methodology for the development of e-government”, carried out by Inha University in Tashkent, the reasons for the deterioration of the position of Uzbekistan in this ranking were studied and summarized. They turned out to be:

1. First of all, due to the lack of a single coordinating body for the development of the digital economy and the implementation of “**electronic government**” in the Republic of Uzbekistan, until April 2021, a clearly formulated action plan and mechanisms for its implementation were not developed to effectively implement e-government and increase its international rating.

2. In the component “**Electronic Services**”, aimed at assessing the national portal of electronic services and websites of the relevant ministries and departments:

- low level of transactional service, incomplete system of full electronic payment of state duties, fees and fines;
- inconsistency of official websites with 148 different practical issues specified in the methodology criteria, such as: availability of information, financial transparency, ease of maintenance;
- insufficient implementation of the national portal of online services and official websites in a form adapted for use on mobile devices (smartphones and tablets);
- lack of fully automated electronic services based on interagency electronic cooperation.

In the Human Capital component:

- insufficient level of higher education;
- unrealized opportunities for distance learning;
- a large number of people among the elderly who do not use computer technologies.

In the "Telecommunication infrastructure" component:

- lack of high-speed wired Internet in remote areas of the country;
- lack of fully automated electronic services based on interagency electronic cooperation.

In the "Electronic index of participation" section:

- Lack of decision-making capacity in education, health and finance, including citizen participation in decision-making based on the results of online discussions with citizens.

SWOT-analysis of features of the development of e-government in Uzbekistan makes it possible to identify the main strengths and weaknesses of e-government.

Strengths (S)	Weaknesses (W)
1. Access to government services; 2. Opportunity for citizens to exercise their constitutional rights to participate in government; 3. Enabling citizens to participate in democratic processes; 4. Limiting the possibilities of administrative arbitrariness; 5. Reduction of costs associated with public administration.	1. High costs for the implementation and support of "e-government"; 2. Lack of qualified personnel (problems related to human capital); 3. "E-poverty" and e-illiteracy of a certain part of the population; 4. The problem of eliminating the human factor (in different situations, this moment can be attributed either to strengths or weaknesses).
Opportunities (O)	Potential Threats (T)
1. Cost reduction - significant increase in public administration responsibility; 2. Achieving government transparency; 3. Reduction of corruption; 4. Improving the efficiency of public administration; 5. Growth of democratization of the society; 6. Involvement of civil society and the business sector in decision-making processes.	1. Deepening the "digital divide" between urban and rural residents, rich and poor, educated and uneducated, i.e. widening the gap in access to information; 2. Password cracks and hacker attacks; 3. Network failures.

Today, an electronic government has been created in the Republic of Uzbekistan, the level of development of which allows for the automation of management processes, a significant increase in the efficiency of public administration, simple, comfortable and quick interaction with citizens and businesses.

At the same time, the factors of interdepartmental information interaction are:

- creation of a unified technological infrastructure for electronic interaction between state bodies and other state organizations based on interdepartmental

information systems, data processing centers and a **Single Portal of Interactive Public Services (SPIPS)**;

- regulatory framework for the formation and development of a system for the provision of electronic services by public authorities;
- provision of unified mechanisms for identification and authentication of participants in information interaction when working in state information systems, when receiving electronic services;
- creation of a universal mechanism for performing administrative procedures in electronic form and providing electronic services through a **Single Portal of Interactive Public Services (SPIPS)**;
- processes of cross-border legally significant electronic interaction are being built.

Key takeaways

Astudying of the current situation regarding the development of e-government in Uzbekistan allows us to draw some key conclusions that need to be addressed.

1. The attitude towards e-government and digital transformation has qualitatively changed. Our leaders and ordinary citizens are becoming more and more aware of their importance and benefits every day.

2. The priority areas for the development of e-government in Uzbekistan remain: digitalization of the processes of providing services to the population, working with data, as well as coordinated, effective management of this activity.

3. The main factors for the success of e-government and digital transformation: the existence of a strategic plan, effective change management, high-quality implementation of values and principles of “digital culture”.

4. The value of e-government and digital engagement is constantly growing across all industries. It is important not only for communication, but also for the continuous development of electronic services provided to the population.

5. Digital infrastructure does not meet the requirements of citizens. This is noticeable and is associated, on the one hand, with the low maturity of the infrastructure of some organizations, enterprises, business companies, especially in the periphery, and on the other hand, with the rapid growth of technological and social requirements of the population for infrastructure.

6. “Digital culture” is one of the key success factors for e-government and digital transformation. Today, such qualities as self-development, sociability, endurance and efficiency, the ability to make decisions in the face of constant change are among the most sought-after qualities of an employee.

Priority tasks to improve the situation

Improving the results of the ranking of our country, which will be published in 2022, requires the solution of the following priority tasks:

- increasing the number and quality of measures aimed at increasing the transparency of data and the number of electronic services, expanding the activities of official websites and a single portal based on the United Nations e-Government Development Methodology;

- development and implementation of a ranking system for the systematic evaluation of ICT implementation in ministries and departments;
- systematic and continuous coverage of the implementation of online services for the population through local Media, Internet and social networks, as well as possibilities and convenience of their use;
- formation in the activities of the Legislative Chamber and the Senate of the OliyMajlis of parliamentary and deputy requests based on citizens' appeals on the Internet, the introduction of interactive forms of direct communication with voters;
- increasing the share of the population with higher education to ensure a high ranking of the republic in human capital index, increasing the level of literacy of the population in the field of ICT;
- improving the skills of the population through the development of digital education so that the general public can enjoy the benefits of the latest technologies;
- Improving the quality of digital services in rural areas on the principle of a single center;
- capacity building for digital economic diplomacy;
- use of digital solutions to expand public access to the judicial system in electronic form;
- Digitization of services for vulnerable populations in neighborhoods;
- development of programs (training courses, e-learning, webinars) to improve the skills of the population in the use of digital technologies. The program should be aimed at improving the quality of life of the population and expanding its access to information and communication technologies, including the full use of the resources of official state portals;
- study of South Korea's "Digital new deal" strategy to develop the economy through the digital transformation of the economy and create new jobs and prospects for the future.

In the near future, special attention should be paid to the issue of further increasing the volume of public electronic services, since increasing the level of informatization in the field of work with citizens and organizations is one of the fundamental principles in debureaucratization of the state apparatus.

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