

Ruslan Sabdenov¹, Gaukhar Abdrakhmanova²

¹ doctoral student of the Department of Political Science

L.N. Gumilyov Eurasian National University,

e-mail: sabdenov.r.a.22@gmail.com

² docent of the Department of Political Science Eurasian National

University. L.N. Gumilyov, Candidate of Historical Sciences,

(Astana, Kazakhstan)

gauhar-abdrahmanova@mail.ru

KEY FEATURES OF E-GOVERNMENT DEVELOPMENT IN KAZAKHSTAN

Abstract. The article presents an analysis of the development of "Electronic Government" in Kazakhstan. The authors considered the legislative and institutional foundations of its development, and also identified the main stages of development with the characteristic features of each stage. The article also studied the assessment of international organizations on the dynamics of the development of Kazakhstan's e-government. The paper considers the dynamics of the public services most in demand by the population. The identified features of the development of the "Electronic Government" of Kazakhstan allow us to determine the promising directions of its development for the coming period.

Keywords: e-government, government for citizens, public services, digitization

Руслан Сабденов, Гаухар Адбрахманова ҚАЗАҚСТАНДАҒЫ ЭЛЕКТРОНДЫҚ ҮКІМЕТТІҢ ДАМУЫНЫҢ НЕГІЗГІ ЕРЕКШЕЛІКТЕРІ

Аңдатпа. Мақалада Қазақстандағы «Электрондық үкіметтің» дамуына талдау берілген. Авторлар оның дамуының заңнамалық және институционалдық негіздерін қарастырды, сонымен қатар әр кезеңнің өзіне тән ерекшеліктерімен дамудың негізгі кезеңдерін анықтады. Сондай-ақ мақалада халықаралық ұйымдардың қазақстандық электрондық үкіметтің даму динамикасына берген бағасы зерделенген. Жұмыста халық ең көп сұранысқа ие мемлекеттік қызмет көрсету динамикасы қарастырылған. Қазақстанның «Электрондық үкіметін» дамытудың анықталған ерекшеліктері оның алдағы кезеңге дамуының перспективалық бағыттарын айқындауға мүмкіндік береді.

Түйін сөздер: электронды үкімет, азаматтарға арналған үкімет, мемлекеттік қызметтер, цифрландыру

Аннотация. В статье представлен анализ развития «Электронного правительства» в Казахстане. Авторами рассмотрены законодательные и институциональные основы его развития, а также выявлены основные этапы развития с характерными особенностями каждого этапа. Также в статье изучена оценка международных организаций о динамике развития казахстанского электронного правительства. В работе рассмотрена динамика наиболее востребованных населением государственных услуг. Выявленные особенности развития «Электронного правительства» Казахстана позволяют определить перспективные направления его развития на предстоящий период.

Ключевые слова: электронное правительство, правительство для граждан, государственные услуги, цифровизация

Introduction

The dynamic development of information and communication technologies in the 21st century has opened up new opportunities for the governments of the countries of the world, and new technologies have begun to be introduced into the public administration system. Thus, the concept of e-government arose and gradually developed in the field of public administration. At the same time, the term "electronic government" covers a fairly wide range of issues, including the provision of public services to the population through information and communication technologies, the development of electronic websites of government bodies, building interaction between government bodies and the population through Internet sites, the introduction of information and communication technologies in all areas of activity of state bodies, including interaction between them (for example, electronic document management).

The development of e-government in Kazakhstan is an important part of the administrative reform. The public administration reform is aimed at promoting the principles of openness, accessibility, transparency and efficiency of state bodies. Digitalization of the provision of public services is designed to increase their accessibility and comfort for the population, reduce bureaucratic elements, save time and state budget expenses. It is especially necessary to note the Plan of the Nation "100 Concrete Steps" [1]. This document fixed a measure to create a state corporation "Government for Citizens" - a single provider of public services. Since that time, the population has been able to receive all public services on the principle of "one window", in one institution.

In general, the initiative to introduce "Electronic Government" was announced by the First President of the Republic of Kazakhstan N.A. Nazarbayev in his Address to the people dated March 19, 2004: "It is time to actually begin to form an "electronic government". This is a small Government, transparent in its activities.

It will reduce contacts between the population and officials, improve the quality and reduce the time for rendering services. This will lead to a new administrative reform and a reduction in the state apparatus.” Also, in his Address to the people of Kazakhstan, the Head of State noted that “to carry out such work, a large program is needed to eliminate computer illiteracy and provide the population with access to the Internet” [2].

It is important to note that digital literacy of the population is growing. If in 2008 the share of Internet users aged 16 to 74 was 15.1%, then in 2021 it is the majority of the population, 93.3% of the population [3]. In other words, there is a willingness on the part of the population to interact with the "Electronic Government".

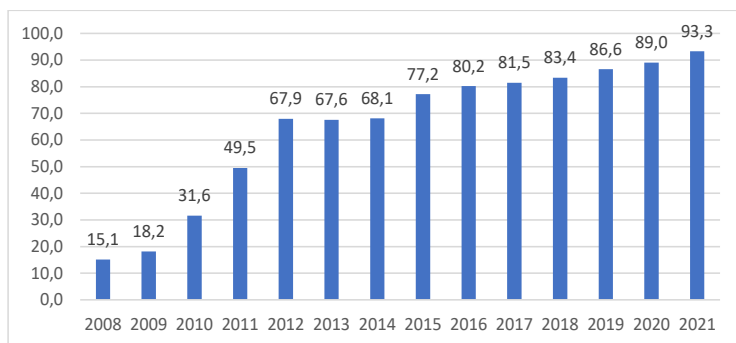


Diagram 1. Share of Internet users aged 16-74 in Kazakhstan, %

Source: BNS ASPaR RK

Nowadays the information and communication technologies continue to develop rapidly. For example, there is a transition to mobile devices - most people access the Internet through mobile devices. In modern conditions, for the further development of democratic principles, the integral components of which are accessibility, transparency, openness of state bodies, it is important to further develop the "Electronic Government". This requires an analysis of its development at the current moment.

Nowadays a significant attention is paid to the development of e-government in Kazakhstan. In 2020, a group of researchers released the book «Introducing E-Government in Kazakhstan: The Concept of E-Democracy for the State-Public Interaction» [4], which addressed issues such as «Evolution of Business-Government Interaction Models», «Digital Agropolis as a Model of Sustainable Development in Rural Areas of Eurasia Region», etc. It is also necessary to highlight the works of the following authors: Bokayev B., Davletbayeva Zh., Amirova A., Rysbekova Zh., Torebekova Z., Jussupova G. [5], Amanbek Y., Balgayev I., Batyrkhanov K., Tan M. [6]. Petrenko E. S., Shevyakova A. L. [7], Knox C., Janenova S. [8], Bhuiyan S. H. [9]. The author Kassen M. devoted a number of works to the development of e-government in Kazakhstan [10-12].

The purpose of the study is to determine the key features of the development of the "Electronic Government" of Kazakhstan.

Research objectives:

- consider the legislative and institutional framework for the development of "Electronic Government" in Kazakhstan;
- identify stages in the development of "Electronic government" in Kazakhstan;
- study the assessment of international ratings regarding the development of "Electronic Government" in Kazakhstan;
- identify the dynamics of the public services most in demand by the population;
- determine the distinctive characteristics of the "Electronic Government" of Kazakhstan;
- to study perspective directions of development of "Electronic government" in Kazakhstan.

Research methods

The study uses the method of analysis, which made it possible to identify the distinctive features of the development of e-government in Kazakhstan. Research is based on the case study of Kazakhstan's e-government and document analysis of state orders, laws and statistics from the e-government.

Results of the study

First, Kazakhstan has created the necessary legislative and institutional framework for the development of "Electronic Government". The e-government portal has been operating in Kazakhstan since 2006. This portal was created in accordance with the Decree of the President of the Republic of Kazakhstan dated November 10, 2004 No. 1471 "On the state program for the formation of "electronic government" in the Republic of Kazakhstan for 2005-2007" [13]. A separate chapter "Electronic government" is devoted to the Law of the Republic of Kazakhstan "On Informatization". According to its provisions, the "Electronic government" has a number of goals. First of all, they relate to ensuring "the availability, quality and efficiency of the provision of public services in electronic form; increasing transparency in the activities of state bodies, ensuring the availability of information, public control and participation of the population in solving issues of public administration at all levels; ensuring the implementation and support of the administrative reform of public administration; optimization of the activities of state bodies through the use of information and communication technologies; as well as reduction (exclusion) of the use of paper documents and requirements for their submission" [14].

Since 2016, a specialized state body has been operating in Kazakhstan - the Ministry of Digital Development, Innovation and Aerospace Industry. One of its main activities is e-government and public services. The Ministry is the coordinator for the automation and optimization of public services. Participation in the management and maintenance of the functioning of the portal takes JSC "National

Information Technologies" [15]. This organization, in accordance with the Decree of the Government of the Republic of Kazakhstan dated January 29, 2016 No. 40, is defined as the Operator of the information and communication infrastructure of the "Electronic Government" [16].

The adoption of regulatory legal norms regarding e-government allows experts to single out several stages of its development separately. The first stage (2005-2006) is associated with the launch of the e-government portal. During this period, materials about public services were posted on the portal. They were more informational direction. At the second stage (2007-2008), the portal users were given the opportunity to receive public services in electronic format. At the next stage, citizens were able to pay state duties and fees, fines and utilities, and electronic public procurement was also introduced. Since 2010, a new stage has been marked - public services are provided to the population more quickly and comprehensively, the range of socially significant public services online has expanded [17].

Second. An analysis of the positions of the "Electronic Government" of Kazakhstan in international rankings indicates its gradual development with minor fluctuations. According to the e-Government Development Index, in 2020 Kazakhstan ranked 29 out of 193 countries.

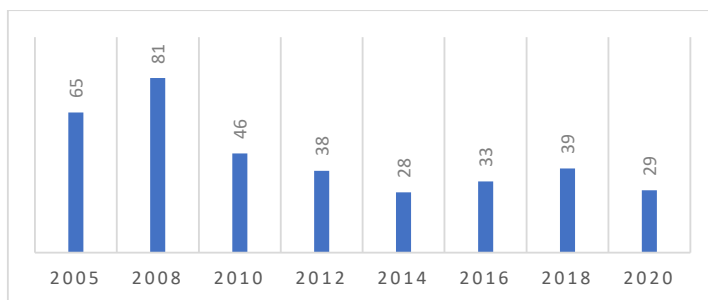


Diagram 2. Positions of Kazakhstan in the ranking of the e-Government Development Index

Source: UN

This index is an assessment of the development of e-government in the Member States of the United Nations. It includes an assessment of website development patterns as well as access (infrastructure and digital literacy) to reflect how a country is using information technology to improve access and engagement of its population. The index is a composite measure of three important aspects of e-government: online service delivery, telecommunications, and human potential.

It should be noted that according to the Index for 2020, Kazakhstan occupies a leading position in the development of "Electronic Government" in Central Asia (Table 1).

Rank	Country	E G D I Level	E G D I Rating	EGDI 020	Online Service Index	Tele-comm. Infrastructure Index	Human Capital Index
29	Kazakhstan	Very High EGD I	V3	0,8375	0,9235	0,7024	0,8866
83	Kyrgyzstan	High EGD I	H3	0,6749	0,6471	0,5902	0,7873
133	Tajikistan	Middle EGD I	MH	0,4649	0,3176	0,3496	0,7274
158	Turkmenistan	Middle EGD I	M2	0,4034	0,1765	0,3555	0,6783
87	Uzbekistan	High EGD I	H3	0,6665	0,7824	0,4736	0,7434

In addition, Kazakhstan is among the countries with very high OSI (Online Services Index - a composite indicator that measures the use of information and communication technologies by governments for the provision of public services at the national level), including a very high HCI (Human Capital Index).) and high TII (Telecommunication Infrastructure Index) (Table 2). Experts note that in these countries “human capital is highly developed, but the state of their infrastructure may hinder further progress in the development of e-government” [18].

Very high OSI			
Very High HCI + High TII	Very High TII + High HCI	High TII + High HCI	High HCI + Moderate TII
Albania, Argentina, Brazil, Colombia, Croatia, Ecuador, Kazakhstan, Mexico, Oman, Peru, Serbia, Thailand, Turkey	Kuwait, United Arab Emirates	China, Dominican Republic, Republic of Moldova	India, Uzbekistan

Table 2. List of countries with a very high Online Services Index, 2020

Source: UN

Among landlocked countries, Kazakhstan takes the lead in the development of e-government. Experts note that in 2018 Kazakhstan moved from the group of high to the group of very high e-government development index and attribute this to the adoption of the Digital Kazakhstan program. This program is aimed at improving the mechanisms for providing public services online, expanding the ICT infrastructure and improving the quality of education and digital literacy of the population.

Third. Analysis of statistical information on the amount of use by the population [19] of certain public services on the e-Government portal allows us to conclude that the dynamics of the development of this portal meets the needs of the population. In turn, these needs for public services are flexible and responsive to the process of making political decisions, introducing innovations on various issues of the socio-political and economic agenda.

So, in 2017, in the top 10 popular services on the e-government portal was "Enrolling children in kindergarten", in the specified year 235 912 people received this service. In subsequent years, this service is no longer included in the list of the most popular services. This is due, first of all, to the adoption of a political decision, enshrined in the Order of the Minister of Education and Science of the Republic of Kazakhstan dated October 11, 2017 No. 518 "On Amendments to the Order of the Minister of Education and Science of the Republic of Kazakhstan dated April 7, 2015 No. 172 "On Approval of Standards of State services provided by local executive bodies in the field of preschool education and training, as well as methodological recommendations for automating the process of forming and functioning of the queue and issuing referrals to preschool organizations. According to the document, public services are provided by local executive bodies. In 2017, a special portal was put into operation - the automated service "Indigo" (<https://indigo24.kz>). It allows you to queue up for kindergarten, get a referral to a preschool institution, study the register of kindergartens. In addition, similar services were subsequently launched at the regional level, for example, in Karaganda in 2017, the state services "Placing preschool children (up to 7 years) on the waiting list for sending to preschool organizations" and "Acceptance of documents and enrollment of children to preschool educational institutions" is carried out through the portal "Garden.kargoo.gov.kz" [20].

Another example is the state service "Issuance of information on the state of pension savings (including investment income) of a contributor (recipient) of a unified accumulative pension fund." It topped the top 10 most requested public services in 2021, with the number of service users reaching 408 792. The reason for this is the adoption of a political decision in 2021 on the early withdrawal of part of the pension savings of the population, since that time, citizens have received the right to withdraw part of the pension savings above the adequacy threshold for housing issues and treatment.

It is also necessary to note the public service, which was widely used in 2020 and 2021 - "Issuance of a certificate confirming that the applicant (family) belongs to the recipients of targeted social assistance." The number of users of this public service was 71 132 and 264 871, respectively. This trend is also related to the process of political decision-making - in this period of time, innovations were introduced in the procedure for providing targeted social assistance to the population.

It is worth noting the state service "Attachment to a medical organization providing primary health care" has been launched on the e-government portal since 2013. This service is available for all regions. In 2016, 24,173 people used the service of the eGov.kz portal for attaching to a polyclinic [21]. This service

in January 2020 entered the top three in terms of the number of requests from the population - this state service. 256,440 people used the service. This is due to the introduction of compulsory social health insurance from January 2020.

It should be noted that the most popular public service on the e-government portal of Kazakhstan from 2017 to 2019 was the issuance of address certificates. If in 2017 16,238,572 such certificates were issued, in 2018 - 12,664,835, in 2019 the number of issuances decreased significantly, but also remained in first place in terms of the number of provision of this public service - 1,461,418. From November 1, 2019 the state service "Issuance of address certificates from the place of residence" was canceled.

Services consistently used by the population are the issuance of certificates related to real estate (they are necessary when applying for a mortgage, concluding sales contracts, and so on), as well as a certificate of the absence or presence of a criminal record (necessary, most often, for employment) (Table 3).

Name of the public service	2017	2018	2019, January	2020, January	2021, January
"Issuance of a certificate of registered rights (encumbrances) to real estate and its technical characteristics"	2 638 413	2 443 714	194 343	236 984	н.д.
"Issuance of a certificate of the presence (absence) of a criminal record" (2017, 2018), "Issuance of a certificate of the presence or absence of information on the records of the Committee on Legal Statistics and Special Records of the Prosecutor General's Office of the Republic" (since 2019)	1 511 925	1 722 669	200 377	338 214	344 862
"Issuance of a certificate of absence (presence) of real estate"	2 460 915	2 241 798	319 150	512 902	397 364

Table 3. Public services most frequently used by the population through the e-Government portal

Source: E-gov

The foregoing allows us to conclude that the e-government portal is developing in accordance with the political decisions made.

Conclusions

An analysis of statistical data on public services provided to the population online and the position of the "Electronic Government" of Kazakhstan testify to the confident development and improvement of the quality of this channel.

This is facilitated, first of all, by the strong political will of the country's leadership for the digitalization of public administration. This is expressed in the creation of the necessary legislative and institutional framework for the development of "Electronic Government".

The dynamic development of e-government in Kazakhstan is recognized by UN experts. This is evidenced by the analysis of the positions of the "Electronic Government" of Kazakhstan in the Index of Development of Electronic Government - 29th place in 2020. It should be noted that Kazakhstan occupies a leading position in the development of "Electronic Government" in Central Asia and among countries that do not have access to the sea. In addition, Kazakhstan is among the countries with very high scores in the Online Services Index.

The analysis of statistical information on the amount of use by the population of certain public services on the e-Government portal allows us to conclude that the dynamics of the development of this portal meets the needs of the population.

Today, in the conditions of rapid renewal and development of information technologies, it is necessary to constantly improve and develop the "Electronic Government". To do this, in general, it is necessary to take measures to expand the openness, accessibility and efficiency of the provision of public services to the population and provide feedback from public authorities to the population.

REFERENCES:

1. Plan natsii «100 konkretnykh shagoV». Programma Prezidenta Respubliki Kazakhstan ot 20 maya 2015 goda [The plan of the nation «100 concrete steps». Program of the President of the Republic of Kazakhstan dated May 20, 2015]. URL:<https://adilet.zan.kz/rus/docs/K1500000100> (Accessed: 28.10.2022).
2. Poslanie Prezidenta Respubliki Kazakhstan N.A. Nazarbaeva narodu Kazakhstana. 19 mart 2004 g. K konkurentosposobnomu Kazakhstanu, konkurentosposobnoi ehkonomike, konkurentosposobnoi natsii [Message from the President of the Republic of Kazakhstan N.A. Nazarbayev to the people of Kazakhstan. March 19, 2004 Toward a competitive Kazakhstan, a competitive economy, a competitive nation]. URL:https://www.akorda.kz/ru/addresses/addresses_of_president/poslanie-prezidenta-respubliki-kazakhstan-n-a-nazarbaeva-narodu-kazakhstana-19-mart-2004-g_1342416361 (Accessed: 08.11.2022).
3. Statistika informatsionno-kommunikatsionnykh tekhnologii [Statistics of information and communication technologies]. URL:<https://stat.gov.kz/official/industry/29/statistic/6> (Accessed: 15.11.2022).
4. Kuatova A., Bekbasarova T., Abdrashev R. Introducing E-Government in Kazakhstan: The Concept of E-Democracy for the State-Public Interaction //Toward Sustainability Through Digital Technologies and Practices in the Eurasian Region. – IGI Global, 2020. – C. 1-16.
5. Bokayev B. et al. Transforming E-government in Kazakhstan: a citizen-centric approach // The Innovation Journal. – 2021. – T. 26. – №. 1. – C. 1-21.
6. Amanbek Y. et al. Adoption of e-government in the Republic of Kazakhstan //Journal of Open Innovation: Technology, Market, and Complexity. – 2020. – T. 6. – №. 3. – C. 46.

7. Petrenko E. S., Shevyakova A. L. Features and perspectives of digitization in Kazakhstan //Ubiquitous Computing and the Internet of Things: Prerequisites for the Development of ICT. – Cham: Springer International Publishing, 2019. – C. 889-899.
8. Knox C., Janenova S. The e-government paradox in post-Soviet countries //International Journal of Public Sector Management. – 2019. – Т. 32. – №. 6. – С. 600-615.
9. 8. Bhuiyan S. H. E-government in Kazakhstan: Challenges and its role to development //Public Organization Review. – 2010. – Т. 10. – №. 1. – С. 31-47.
10. Kassen M. E-government in Kazakhstan: A case study of multidimensional phenomena. – Routledge, 2016.
11. Kassen M. E-government in Kazakhstan: realization and prospects. – 2010.
12. Kassen M. Understanding Systems of e-Government: e-Federalism and e-Centralism in the United States and Kazakhstan. – Lexington books, 2015.
13. Ukaz Prezidenta Respubliki Kazakhstan ot 10 noyabrya 2004 goda N 1471. Utratil silu Ukazom Prezidenta Respubliki Kazakhstan ot 18 iyunya 2009 goda № 829 O Gosudarstvennoi programme formirovaniya «ehlektronnogo pravitel'stva» v Respublike Kazakhstan na 2005-2007 gody [Decree of the President of the Republic of Kazakhstan dated November 10, 2004 N 1471. Repealed by Decree of the President of the Republic of Kazakhstan dated June 18, 2009 No. 829 On the State Program for the Formation of «Electronic Government» in the Republic of Kazakhstan for 2005-2007]. URL:https://adilet.zan.kz/rus/docs/U040001471_ (Accessed: 20.11.2022).
14. Zakon Respubliki Kazakhstan ot 24 noyabrya 2015 goda № 418-V «Ob informatizatsii» (s izmeneniyami i dopolneniyami po sostoyaniyu na 03.09.2022 g.) [Law of the Republic of Kazakhstan dated November 24, 2015 No. 418-V "On Informatization" (as amended and supplemented as of March 09, 2022)]. URL:https://online.zakon.kz/Document/?doc_id=33885902&doc_id2=33885902#pos=3;98&pos2=3;98 (Accessed: 20.11.2022).
15. Ehlektronnoe pravitel'stvo Respubliki Kazakhstan [Electronic government of the Republic of Kazakhstan]. URL:<https://egov.kz/cms/ru/information/about> (Accessed: 12.12.2022).
16. Uslugi [Services]. URL:<https://www.nitec.kz/ru/article/uslugi-page> (Accessed: 12.12.2022).
17. Elektronnoe pravitel'stvo [Electronic government]. URL:<https://www.gov.kz/memleket/entities/kgu/activities/1363?lang=ru> (Accessed: 17.12.2022).
18. ssledovanie OON: Ehlektronnoe pravitel'stvo 2020 Tsifrovoe pravitel'stvo v desyatiletii deistvii po dostizheniyu ustoichivogo razvitiya S dopolneniem po reagirovaniyu na COVID-19. OON, 2020 [UN Study: E-Government 2020 Digital Government in the Decade of Action for Sustainable Development With an addendum on response to COVID-19. OON, 2020]. URL:<https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2020-Survey/2020%20UN%20E-Government%20Survey%20-%20Russian.pdf> (Accessed: 17.12.2022).
19. Interesnaya statistika ehlektronnogo pravitel'stva [Interesting e-government statistics]. URL:<https://egov.kz/cms/ru/information/about/stat> (Accessed: 27.12.2022).
20. Podrobnее ob avtomaticheskome raspredelenii mest v detsadakh. Novyi Vestnik. 05 Fevral', 2018 [More about the automatic distribution of places in kindergartens. New herald. February 05, 2018]. URL:<http://nv.kz/2018/02/05/193798/> (Accessed: 17.12.2022).
21. Cherez portal eGov za pervyi mesyats kampanii k poliklinikam prikrepilos' bolee 6 tysyach grazhdan [During the first month of the campaign, more than 6,000 citizens joined polyclinics through the eGov portal]. URL:<https://www.nitec.kz/ru/news/cerez-portal-egov-za-pervyi-mesac-kampanii-k-poliklinikam-prikrepilos-bolee-6-tysac-grazhdan> (Accessed: 17.12.2022).