

ANALYSIS OF INSTRUMENTS OF STATE MANAGEMENT OF REGIONS OF KAZAKHSTAN IN THE CONDITIONS OF DIGITALIZATION

IMANBEKOVA A.M.*¹

PhD student

STAVBUNIK E.A.¹

Phd, Associate Professor

¹Karaganda University of Kazpotrebsoyuz, Karaganda, Republic of Kazakhstan

KUSHEBINA G.M.²

Candidate of Economic Sciences, Associate Professor

²Esil University, Astana, Republic of Kazakhstan

KADYROVA A.S.³

Candidate of Economic Sciences, Associate Professor

³International Taraz Innovation Institute named after Sherkhan Murtaza,
Taraz, Republic of Kazakhstan

ABSTRACT. In the age of digitization, this study looks at how public administration has changed across Kazakhstan's regions. The rapid development of digital technologies has led to transformational changes in various sectors, including governance. Kazakhstan, as a country seeking to use digital technologies for development purposes, needs a comprehensive analysis of public administration tools in this context. This article examines various digital tools, strategies and initiatives used by the Kazakhstani government to improve regional governance. It assesses their practical relevance, impact on regional development and suggests options for further utilization of these digital tools for the benefit of the country.

This study aims to investigate the methods and instruments employed in Kazakhstan's regions for state management.

The study's theoretical and methodological foundation is derived from the writings of Kazakh and international scientists, as well as from scientific theories and notions regarding the function and significance of digitization in public administration.

This research is interesting from a scientific standpoint because it is among the first in-depth analyses of the digitalization of public administration in Kazakhstan's regions. The author identifies the practical significance, challenges and opportunities of digitalization to promote regional development in Kazakhstan. Additionally, the author makes suggestions for enhancing digital governance in Kazakhstan's various regions.

KEYWORDS: public administration, regional development, information technology, unified information system, impact of digitalization

ЦИФРЛАНДЫРУ ЖАҒДАЙЫНДА ҚАЗАҚСТАН
ӨҢІРЛЕРІН МЕМЛЕКЕТТІК БАСҚАРУ ҚҰРАЛДАРЫН
ТАЛДАУ

ИМАНБЕКОВА А.М.*¹

PhD докторанты

СТАВБУНИК Е.А.¹

Phd, доцент

¹Қазтұтыну одағы Қарағанды университеті, Қарағанды қ.,
Қазақстан Республикасы

КУШЕБИНА Г.М.²

экономика ғылыми кандидаты, доцент

²Esil University, Астана қ., Қазақстан Республикасы

КАДЫРОВА А.С.³

экономика ғылыми кандидаты, доцент

³Шерхан Мұртаза атындағы Халықаралық Тараз инновациялық институты,
Тараз қ., Қазақстан Республикасы

АҢДАТПА. Бұл ғылыми мақалада цифрландыру дәуірінде Қазақстан өңірлеріндегі мемлекеттік басқару ландшафтының эволюциясы қарастырылады. Цифрлық технологиялардың қарқынды дамуы әртүрлі салаларда, оның ішінде мемлекеттік басқару саласында да трансформациялық өзгерістерге әкелді. Қазақстан цифрлық технологияларды дамыту мақсатында пайдалануға ұмтылған ел ретінде осы тұрғыда мемлекеттік басқару құралдарын кешенді талдауды қажет етеді. Бұл бапта қазақстандық үкімет өңірлік басқаруды жетілдіру үшін пайдаланатын түрлі цифрлық құралдар, стратегиялар мен бастамалар қарастырылады. Олардың практикалық маңыздылығы, өңірлік дамуға әсері бағаланады және осы цифрлық құралдарды ел игілігі үшін одан әрі пайдалану нұсқалары ұсынылады.

Аталған зерттеудің мақсаты - Қазақстан өңірлерінде мемлекетті басқару үшін пайдаланылатын құралдар мен стратегияларды зерделеу.

Зерттеудің теориялық және әдіснамалық негізі қазақстандық және шетелдік ғалымдардың еңбектеріне, мемлекеттік басқару үшін цифрландырудың рөлі мен мәні туралы көзқарастар мен ғылыми түсініктерге негізделеді.

Зерттеудің ғылыми жаңалығы - ол Қазақстан өңірлеріндегі мемлекеттік басқаруды цифрландыруды талдауға арналған алғашқы кешенді зерттеулердің бірі болып табылады. Автор Қазақстандағы өңірлік дамуға жәрдемдесу үшін цифрландырудың практикалық маңыздылығы, проблемалары мен мүмкіндіктерін анықтады. Автор сондай-ақ Қазақстан өңірлерінде цифрлық басқаруды жетілдіру бойынша ұсыныстар ұсынады.

ТҮЙІН СӨЗДЕР: мемлекеттік басқару, өңірлік даму, ақпараттық технологиялар, бірыңғай ақпараттық жүйе, цифрландырудың әсері

АНАЛИЗ ИНСТРУМЕНТОВ ГОСУДАРСТВЕННОГО УПРАВЛЕНИЯ РЕГИОНАМИ КАЗАХСТАНА В УСЛОВИЯХ ЦИФРОВИЗАЦИИ

ИМАНБЕКОВА А.М.*¹

PhD докторант

СТАВБУНИК Е.А.¹

Phd, доцент

¹Карагандинский университет Казпотребсоюза, г. Караганда,
Республика Казахстан

КУШЕБИНА Г.М.²

кандидат экономических наук, доцент

²Esil University, г. Астана, Республика Казахстан

КАДЫРОВА А.С.³

кандидат экономических наук, доцент

³Международный Таразский инновационный институт имени Шерхана Муртазы,
г. Тараз, Республика Казахстан

АННОТАЦИЯ. В данной научной статье рассматривается эволюция ландшафта государственного управления в регионах Казахстана в эпоху цифровизации. Стремительное развитие цифровых технологий привело к трансформационным изменениям в различных отраслях, в том числе и в сфере государственного управления. Казахстан, как страна, стремящаяся использовать цифровые технологии в целях развития, нуждается в комплексном анализе инструментов государственного управления в этом контексте. В данной статье рассматриваются различные цифровые инструменты, стратегии и инициативы, используемые казахстанским правительством для совершенствования регионального управления. Оценивается их практическая значимость, влияние на региональное развитие и предлагаются варианты дальнейшего использования этих цифровых инструментов на благо страны.

Цель данного исследования - изучить инструменты и стратегии, используемые в регионах Казахстана для управления государством.

Теоретическая и методологическая основа исследования базируется на трудах казахстанских и зарубежных ученых, взглядах и научных представлениях о роли и значении цифровизации для государственного управления.

Научная новизна исследования заключается в том, что оно представляет собой одно из первых комплексных исследований, посвященных анализу цифровизации государственного управления в регионах Казахстана. Автором определены практическая значимость, проблемы и возможности цифровизации для содействия региональному развитию в Казахстане. Автор также предлагает рекомендации по совершенствованию цифрового управления в регионах Казахстана.

КЛЮЧЕВЫЕ СЛОВА: государственное управление, региональное развитие, информационные технологии, единая информационная система, влияние цифровизации

INTRODUCTION. The state, society, and economy are all being impacted by the global movement known as digitalization. Kazakhstan is not an exception, as it acknowledges the potential of digital technology to boost economic growth and increase the efficiency of governance. This article examines how the digitalization of public administration affects the areas in Kazakhstan.

Study aims to investigate the methods and instruments employed in Kazakhstan's regions for state management.

The main objectives of this research article are as follows:

a) examine the digital tools and tactics that Kazakhstan's regions employ to run their governments;

b) assess the practical relevance of

digitalization in promoting regional development;

c) determine the challenges and opportunities associated with the digitalization of public administration across Kazakhstan's regions.

The fact that this study is one of the first in-depth examinations of the digitization of public administration in Kazakhstan's regions lends it intellectual novelty. The author identifies the practical significance, challenges and opportunities of digitalization to promote regional development in Kazakhstan. The author also offers recommendations for improving digital governance in the regions of Kazakhstan.

MATERIALS AND METHODS OF RESEARCH.

Methodological tools - formal-logical, modeling, modeling of socio-economic processes. The study of public administration was presented by the authors: A.G. Aganbegyan, G.V. Shakhin, G. Atamanchuki, S.Y. Glazyev, T.G. Gazhianev, T. Gebleri, N. Manning, D. Osborn, N. Parisoni, S. Haq and others. The works of O. A. Morozova, M. Petrov and other authors are devoted to digitization.

The empirical base of the study is formed by various sources, including materials of the Ministry of National Economy of the Republic of Kazakhstan, the Ministry of Industry and Infrastructural Development of the Republic of Kazakhstan, the Ministry of Labor and Social Protection of the Population of the Republic of Kazakhstan and reports of the Accounts Committee of the Republic of Kazakhstan on budget execution under the national program "Digital Kazakhstan" [1,2,3].

RESULTS AND THEIR DISCUSSION. The tools of public administration in Kazakhstan's regions comprise a range of digital technologies and solutions that are employed to enhance the day-to-day activities and responsibilities of public administration at the regional level. These tools include:

An e-government system that provides online access of citizens and businesses to various government services and information. The e-government system consists of several components such as e-government portal, E-Gov Mobile application, electronic identification card, electronic signature, open data portal, e-participation platform, etc [2,3].

Digital platforms and services for various industries and domains, such as digital field, model digital factory, intelligent transportation

system, fulfillment center, e-commerce center, open API, etc.

The development of Kazakhstan's digitalization course was enabled by the government's "Electronic Government" and "Information Kazakhstan-2020" projects, which aim to create and expand the country's digital infrastructure. [4,5].

The main force behind the country's digitization has emerged as the State program "Digital Kazakhstan". The implementation of the State Program was divided into five main areas: "Development of human capital," "Transition to a digital state," "Digitalization of economic sectors," "Creation of an innovative ecosystem," and "Implementation of the Digital Silk Road initiative." [6,7].

There are few notable successes in this regard. It should be noted right away that 99% of people currently have access to the Internet. Moreover, the majority of public services—more than 90%—can now be accessed online. In addition, a notable five percent of large and medium-sized enterprises have adopted Industry 4.0 principles.

Testing is being done on 5G mobile communications in addition to expanding the information and communication infrastructure. The e-commerce sector is also growing rapidly; by 2023, its share will increase from 2.7% to 9.7%. In particular, the processing of cryptocurrencies has resulted in the creation of digital farms, and ongoing initiatives are being made to create smart fields and model factories.

Kazakhstan is ranked 51st in the world by the UN's 2019 Human Capital Index (HCI), which is 0.63 on a scale of 1. Over 80% of Kazakhs are now digitally literate.

Kazakhstan's telecom infrastructure index is 0.5668 on a scale of 1, meaning that improvements still need to be made. In terms of mobile Internet speed, Kazakhstan is rated 95th out of 138 countries by Speed Test Global Index. Furthermore, it is still ranked 65th out of 174 nations in terms of fixed broadband Internet access speed. [4].

According to the results of the Global Cybersecurity Index study, which assesses each country's level of cyber security, Kazakhstan significantly improved its rating in 2018. In instance, over the year, the country rose 43 positions, going from 83rd to 40th rank. After Russia, Kazakhstan was the second-ranked

nation in the Commonwealth of Independent States (CIS). However, more has to be done to strengthen data protection protocols, improve this score, and raise information security standards in both the public and private domains. [8,9].

As part of digitalization, a number of initiatives and projects have been implemented to support the digitalization of various sectors such as agriculture, education, health, transport, energy, finance, tourism and others. Examples include the following:

Introduction of a unified information system for agriculture (E-Agriculture), which provides farmers with online services such as subsidies, insurance, veterinary control, land management, etc.

Establishment of a national online education platform (Bilimland) providing access to educational resources, courses, tests and certificates for students and teachers

Creation of a unified electronic health care system (E-Health) that integrates medical information systems, electronic medical records, telemedicine services and online doctor's appointments.

Launching an intelligent transportation system (E-Transport) including intelligent traffic management system, electronic ticketing, online parking, car sharing, etc.

Implementation of an intelligent electricity metering system (E-Energy) that allows remote monitoring and control of electricity consumption and billing.

Creation of a national fintech hub (Astana Hub) supporting the development of innovative financial technologies and services.

Promotion of a digital tourism platform (Visit Kazakhstan) providing information and services for tourists and travel agencies.

The e-Government (E-Gov) system, which gives residents and companies online access to a range of government services and information, is another significant digital technology and approach utilized throughout several regions of Kazakhstan. The E-Gov system is made up of various parts, including [10, p 48]:

The e-government portal, egov.kz, provides approximately 800 online services covering a range of topics, including social security, taxes, education, health, and justice.

Users of smartphones can access online services through the E-Gov mobile application.

Electronic identification card (ID-card), which serves as a universal means of identification and authentication when receiving online services.

Electronic Signature (E-Signature), which ensures the security and legal validity of online transactions.

Open Data Portal (data.egov.kz), which hosts more than 3,000 datasets from various government agencies for public use.

An e-participation platform (Open Dialogue) that allows citizens to participate in public discussions, surveys, petitions, etc.

Regional development in Kazakhstan is greatly impacted by digitalization because it makes it possible to improve public services and information quality and accessibility, boost productivity and innovation potential across a range of industries and sectors, open up new markets and opportunities for consumers and businesses, encourage social inclusion and participation, cut costs and environmental impact, and more. [11, p 88].

Examples of the practical relevance of digitalization in promoting regional development include the following:

Digitalization improves the management and coordination of regional development policies and programs by enabling data-driven decision-making, monitoring and evaluation, transparency and accountability, stakeholder engagement, etc.

Digitalization promotes integration and cooperation between regions by sharing information and knowledge, building networks and partnerships, harmonizing standards and regulations, etc. For example, the Digital Silk Road project aims to improve connectivity and interaction between countries under the Belt and Road Initiative by developing digital infrastructure, services and platforms.

Digitalization stimulates the diversification and competitiveness of regional economies, enabling the introduction of new technologies and business models, the development of new products and services, the creation of new value chains and markets, etc. For example, the Astana Hub supports the growth of the digital economy in Kazakhstan by providing various incentives and services for startups, investors, corporations, etc.

Through enhancing the standard of public services and infrastructure, facilitating access to healthcare and education, encouraging

participation in civic and social activities, and so on, digitalization improves the quality of life and general well-being of the populace in the areas. For instance, by offering online doctor appointments, telemedicine consultations, electronic medical records, and other services, the e-Health system in Kazakhstan enhances the accessibility and caliber of medical services.

Opportunities and Difficulties of Digitalizing Public Administration in Kazakhstan's Regions:

The digitalization of public administration in Kazakhstan's regions presents a variety of hazards and issues that must be recognized and managed. Here are some of them:

Lack of sufficient interaction and integration between different e-government infrastructure elements such as information systems, databases, networks, platforms, etc., which may lead to duplication, inconsistency, inefficiency or vulnerability of data and services.

The adoption and application of digital technology and solutions may be hampered by a lack of skilled workers with digital skills and expertise as well as some government officials' and employees' aversion to change and innovation.

Inadequate legal and regulatory frameworks for digital governance may result in inconsistencies or gaps pertaining to security, privacy, liability, and other aspects of digital

governance.

The potential for data and service confidentiality, integrity, availability, or authenticity to be jeopardized by cyberattacks and cybercrime.

However, there are also a lot of advantages and chances that come with the digitalization of public administration in Kazakhstan's regions, which must be taken advantage of and maximized. Here are some of them:

Improving public service delivery and customer satisfaction by providing faster, easier, cheaper, convenient, personalized, transparent, accountable and inclusive access to public services and information.

Optimization of public administration processes and functions through automation, optimization, standardization, coordination, cooperation, innovation, etc.

Improved public policy and governance by ensuring evidence-based decision-making, real-time monitoring and evaluation, feedback, participation, etc.

Creating public value and social impact by achieving various economic, social, environmental and political objectives such as growth, development, inclusiveness, participation, etc [12, p 485].

CONCLUSION. To summarize, digitalization is an important component and a useful tool

Table 1 – Practical relevance of digitalization for promoting regional development

Aspect	Significance	Tools
Economic growth	Digitalization has helped accelerate Kazakhstan's regional development and improve its competitiveness through technological modernization of various industries such as mining, manufacturing, transport, energy, finance, tourism and others.	Digital Kazakhstan Program
Quality of life	Digitalization improves people's quality of life and overall well-being by increasing accessibility and efficiency of public services and infrastructure, such as social security, health care, education, and justice.	E-Gov
Innovation potential	Digitalization stimulates innovation potential and diversification of the economy by creating an innovation ecosystem that supports startups, investors, corporations, research institutes, etc.	Astana Hub
Regional integration	Digitalization promotes regional integration and cooperation among countries along the Belt and Road Initiative by developing digital infrastructure, services and platforms that improve communication and interaction between them.	Digital Silk Road

Note: compiled by the author on the basis of [4]

for regional development in Kazakhstan. It stimulates economic progress, increases innovation potential and contributes to strengthening regional integration. To realize these goals, Kazakhstan is implementing the "Digital Kazakhstan" program, which includes a number of initiatives and projects on digitalization of various industries and spheres of activity.

Kazakhstan also makes considerable use of the "e-government" system, which provides businesses and residents with online access to a variety of government services and information about them. Thus, the introduction of digital technologies is an integral part of Kazakhstan's long-term development plan, as well as its participation in the international community. Based on the information provided above, it is possible to draw the following conclusion: Kazakhstan's digitalization of public administration is a process that is both

necessary and beneficial for the country's entry into the international community and for the implementation of its development strategy.

But for the digitization of public administration to be successful, a variety of obstacles and risks pertaining to various aspects—technological, organizational, legal, security, and others—must be addressed. To achieve this, it will be necessary to plan and carry out significant initiatives to enhance the infrastructure, human resource capacity, information protection, legal and regulatory framework, and other sectors. Ensuring the active involvement and communication of all relevant parties, such as governmental organizations, corporations, academic institutions, the general public, etc., is also essential. This is the only way to carry out the assigned responsibilities and reap the rewards of digitalizing public administration across Kazakhstan's many regions.

REFERENCES:

1. Decree of the President of the Republic of Kazakhstan № 73. (August 25, 2015). *Forecast scheme of territorial and spatial development of the country until 2020*. <http://economy.gov.kz/ru/kategorii/prognoznaya-shema-territorialno-prostranstvennogo-razvitiya-strany>
2. Economy Profile of Kazakhstan. (2019). *Doing Business 2019 Indicators*. <http://www.doingbusiness.org/content/dam/doingBusiness/country/k/kazakhstan/KAZ.pdf>
3. Resolution of the Government of the Republic of Kazakhstan, No. 827. (December 12, 2017). *State program "Digital Kazakhstan" (as amended on 19.04.2019)*. https://online.zakon.kz/Document/doc_id=37168057
4. Official Information Source of the Prime Minister of the Republic of Kazakhstan. (February 25, 2018). *Digital Kazakhstan: Transformation through modern technologies*. <https://primeminister.kz/en/news/all/16093>
5. Bekzhanova, T.K. (2016). *Methods of assessing the size of the shadow economy in Kazakhstan and its reflection in the system of national accounts*. M.: INFRA-M.
6. Vechkinzova, E.A., Ibrayeva, A.R., Kulzhanbekova, A.J. & Petrenko, E.S. (2019). Study of trends in the development of e-commerce in Kazakhstan. *Voprosy innovatsionnoy ekonomiki*, 9(4), 1627-1640.
7. Kushzhanov, N.V. & Aliev, U.J. (2018). Digital transformation of the economy in the EAEU. *Reports of the National Academy of Sciences of the Republic of Kazakhstan*, 1, 332.
8. Aubakirova, G. (2019). Digital transformation of the economy of Kazakhstan. *Problems of theory and practice of management*, 2, 18-26.
9. Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan. (2021). *Regional Statistics*. http://www.stat.gov.kz/faces/publicationsPage/publicationsOper_adf.ctrl-state=tsqu6o95g_25&_afLoop=10470097499519052&visiblescreen=no&page_id=publicationsOper
10. Rayymkul, A.S. (2019). The use of digital economy technologies in the organization of taxation and interaction with tax authorities in Russia and Kazakhstan. *Actual Issues of Science*, 56, 48-52.

11. Beisenbaeva, A.K., Akimbaeva, K.T. & Tovma, N.A. (2018). Trends in the development of digital economy in Kazakhstan. *Statistics, Accounting and Audit*, 2(69), 88-92.
12. Karpovich, O.G., Karipov, B.N. & Nogmova, A.Sh. (2020). Development of digital economy of Kazakhstan. *Problems of the post-Soviet space*, 7, 4, 485-494.

СВЕДЕНИЯ ОБ АВТОРАХ:

Imanbekova Ainagul* - PhD student of 3rd year in "State and local government", Karaganda University of Kazpotrebsoyuz, Karaganda, Republic of Kazakhstan
E-mail: imanbekova2006@mail.ru

Stavbunik Yelena - Phd, Associate Professor, Head of the Department of «Economic Theory and State and Local Government», Karaganda University of Kazpotrebsoyuz, Karaganda, Republic of Kazakhstan
E-mail: sea826@yandex.kz

Kushebina Gulnara - Candidate of Economic Sciences, Associate Professor of the Department of Management, Esil University, Astana, Republic of Kazakhstan
E-mail: dgm0177@gmail.com

Kadyrova Akmaral - Candidate of Economic Sciences, Associate Professor of the Department of Economics and Management, International Taraz Innovation Institute named after Sherkhan Murtaza, Taraz, Republic of Kazakhstan
E-mail: kadyrova.akmaral@mail.ru

Иманбекова Айнагул Мақсұтқызы* - «Мемлекеттік және жергілікті басқару» мамандығының 3 курс PhD докторанты, Қазтұтыну одағы Қарағанды университеті, Қарағанды қ., Қазақстан Республикасы
E-mail: imanbekova2006@mail.ru

Ставбуник Елена Анатольевна - Phd, доцент, «ЭТ және мемлекеттік жергілікті басқару» кафедрасының меңгерушісі, Қазтұтыну одағы Қарағанды университеті, Қарағанды қ., Қазақстан Республикасы
E-mail: sea826@yandex.kz

Кушебина Гульнара Маликқызы - экономика ғылыми кандидаты, «Менеджмент» кафедрасының доценті, Esil University, Астана қ., Қазақстан Республикасы
E-mail: dgm0177@gmail.com

Кадырова Акмарал Сатбековна - экономика ғылыми кандидаты, доцент, «Экономика және басқару» кафедрасының қаумдастырылған профессоры, Шерхан Мұртаза атындағы Халықаралық Тараз инновациялық институты, Тараз қ., Қазақстан Республикасы
E-mail: kadyrova.akmaral@mail.ru

Иманбекова Айнагуль Максұтовна* - PhD докторант 3 года обучения специальности «Государственное и местное управление», Карагандинский университет Казпотребсоюза, г. Караганда, Республика Казахстан
E-mail: imanbekova2006@mail.ru

Ставбуник Елена Анатольевна - Phd, доцент, заведующая кафедрой «ЭТ и государственное, местное управление», Карагандинский университет Казпотребсоюза, г. Караганда, Республика Казахстан
E-mail: sea826@yandex.kz

Кушебина Гульнара Маликовна - кандидат экономических наук, доцент кафедры «Менеджмент», Esil University, г. Астана, Республика Казахстан
E-mail: dgm0177@gmail.com

Кадырова Акмарал Сатбековна - кандидат экономических наук, доцент, ассоциированный профессор кафедры «Экономика и управление», Международный Таразский инновационный институт имени Шерхана Муртазы, г. Тараз, Республика Казахстан
E-mail: kadyrova.akmaral@mail.ru