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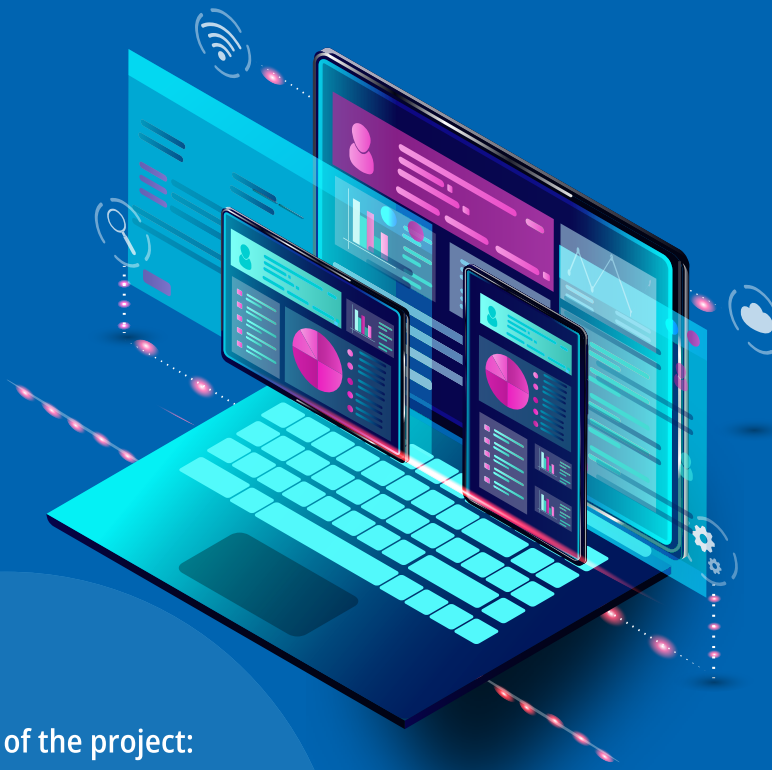
BASELINE STUDY

TO ASSESS THE QUALITY, EFFECTIVENESS AND ACCESSIBILITY OF EXISTING DIGITAL PLATFORMS TO PROVIDE PUBLIC SERVICES



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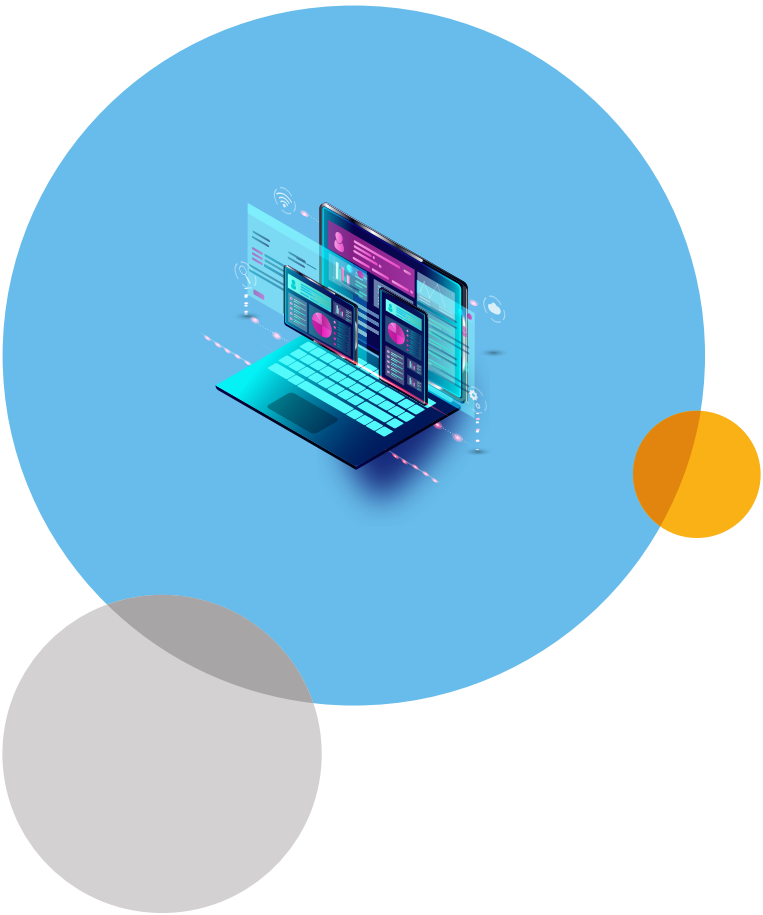

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Omurkulova Ch.M., head of the research team

DISCLAIMER
The content of the report does not reflect the position of the European Union, DVV International, Institute for Youth Development.

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I. LIST OF ABBREVIATIONS

AO	Ayil okmotu (local government)
AIS "EDMS"	Automated information system for electronic document management
APR	Administrative and territorial reform
WB	World Bank
GDP	Gross domestic product
FOCS	Fiber optic communication lines
HEI	Higher education institutions
HNS	State Tax Service
PPP	Public-private partnership
EUIA	Unified identification and authentication system
EU	European Union
IP	Individual entrepreneur
ICT	Information and communication technologies
IYD	Institute for Youth Development
CCM	cash register
LOVZ	Persons with disabilities
MON	Ministry of Education and Science of the Kyrgyz Republic
IDC	Ministry of Digital Development of the Kyrgyz Republic
NPO	Non-profit organization
NAP	Regulatory and legal acts
UN	United Nations
PVT	Hi-Tech Park
RIPKIPPK	Republican Institute for Advanced Training and Retraining of Pedagogical Staff under the Ministry of Education and Science of the Kyrgyz Republic
MEDIA	Media
SPUZ	Secondary vocational schools
TK	Terms of Reference
FGD	Focus group discussion
UNC	Community Service Center
ETTN	Electronic bill of lading
BMZ	German Federal Ministry for Economic Cooperation and Development
DPI	Institute for Development Policy
DVV International	Institute for International Cooperation Deutscher Volkshochschul-Verband e.V. (DVV), the German Adult Education Association.
UI	User Interface
UX	User Experience

II. SUMMARY OF RESEARCH FINDINGS

The baseline study was conducted to assess the baseline state of quality, efficiency and accessibility of existing digital platforms used for public service delivery at the beginning of the interventions of the project **"**Youth Empowerment for Digital Government". The main objective of the project**:** strengthening the role of rural youth in democratic governance through digital tools and media.

A mixed methodology was used for data collection and analysis, including desk research and UI heuristic analysis (a method of evaluating the usability of a product (in this case, public services) in which experts test the interface against predetermined criteria and principles) of ten platforms, focus group discussions, in-depth interviews, and a quantitative telephone survey of citizens and entrepreneurs and user testing (UX usability test). Key findings are developed and verified by multiple sources using the principle of triangulation. Adherence to the principles of informed consent and confidentiality facilitated open communication with key informants.

The main findings of the study are:

Current state of digital transformation: The Kyrgyz Republic demonstrates significant progress in the development of mechanisms for digital participation of citizens. Digital transformation systematically covers key areas of society: health care, education, social protection, lawmaking, taxation and business support. In recent years, a comprehensive system of digital governance has been formed, including a legal and regulatory framework, technical infrastructure and educational programs. Government agencies and their projects continue to develop infrastructure, integrate and improve information systems, and inform the public about government digital services. Training in digital skills for state and municipal employees and teachers through ministries, agencies and their projects is actively underway; mechanisms for digital interaction between citizens, including young people, are being actively developed through digital platforms that provide digital public services in key areas of society; educational content for the development of digital literacy on public platforms, and an information and communication component for informing, instructing and consulting citizens and businesses are being developed; and the use of digital platforms is being expanded. The results of the implementation of digital platforms demonstrate positive dynamics. Interviews, focus group discussions and surveys of key informants of the study record a high level of user satisfaction with the state portal of digital services and the mobile application "Tunduk". Citizens and entrepreneurs note significant time savings, convenience of receiving services and increased transparency of administrative processes due to electronic document flow.

System Challenges and Constraints: At the same time, the analysis of the use of digital platforms of public services has revealed a set of problems that hinder their effective application. In the regional aspect, there is a pronounced digital inequality due to infrastructural limitations: unstable power supply and insufficient technical equipment of remote areas. Technical shortcomings of existing platforms are manifested in unstable portals and insufficient system performance. Incomplete and incomplete integration of interdepartmental data increases the time of processing requests and reduces the efficiency of electronic document flow. Statistics show that only 50.6% of entrepreneurs successfully solve their tasks through existing platforms, and 56.8% of users face the need to duplicate electronic documents with paper ones at the place of requirement in banks, schools and other institutions. User limitations are related to low digital literacy, complexity of interfaces for the inexperienced. A heuristic study of ten platforms for public services revealed the following shortcomings in the operation of digital platforms: complex navigation, unintuitive interface of some portals, the language of instructions and terminology

used does not allow for immediate understanding to effectively obtain the necessary service. Users also note problems with the performance of the systems and the relevance of information.

Involvement of youth in the decision-making process. Analysis of the current state of digital platforms in the Kyrgyz Republic shows that they do provide significant opportunities for accessing information and interacting with government agencies. However, it is still premature to say that these platforms actively involve youth in decision-making.

Based on the analysis of the study data, the following **recommendations** are offered:

Modernization of digital infrastructure requires the introduction of a unified design system with an intuitive interface. Technical improvement of platforms needs to be supported by modern performance monitoring tools to ensure stable operation of digital services.

The educational component involves the creation of a multi-level learning system with specialized programs for different target groups. It is important to pay special attention to the development of customized digital literacy courses and the integration of digital competencies into the education system at all levels.

Implementation mechanisms

Implementation of large-scale information campaigns through traditional and digital communication channels becomes a priority. Government agencies need to focus on improving the transparency of processes and the quality of informing citizens, given the current low assessment of the speed of functioning of platforms (3.55 points out of 5). The development of digital services for the business community involves the creation of a single portal with integrated document management systems and accounting. This will optimize interaction between the government and the business sector.

Successful implementation of the proposed measures requires the active involvement of all stakeholders: state and municipal authorities, educational institutions, the business community and civil society. The key role in promoting the benefits of digital transformation should be played by opinion leaders and non-profit organizations that ensure effective communication with various groups of the population.

III. INTRODUCTION

DVV International and the PF IYD launched in winter 2024 a 30-month project **"**Youth Empowerment for Digital Governance" funded by the EU and BMZ. The main objective of the project**:** strengthening the role of rural youth in democratic governance through digital tools and media. The project also aims to strengthen local authorities to enhance the participation and role of youth in democratic governance, e-governance platforms will be created and tested. The project responds to current challenges by creating conditions for sustainable development of youth capital and contributing to the realization of the state strategy of digital development of Kyrgyzstan and its plan.

The baseline study is conducted according to the Terms of Reference of DVV International and IYD (Annex 1) in **order to assess the** baseline **state of quality, efficiency and accessibility of the existing digital platforms used for the provision of public services** at the beginning of the project interventions. It allows one to

familiarize with the practice of receiving digital public services by citizens and entrepreneurs and the level of satisfaction with it. The information obtained will serve as a basis for the development of effective digital and media strategies, as well as the thematic focus of training programs for beneficiaries. Thus, a baseline assessment of the quality, effectiveness and accessibility of digital platforms ensures that activities are targeted to meet the real needs of the target audience, increasing the effectiveness and measurability of project results.

The baseline study was conducted from July 24 to October 31, 2024 (*Annex 2* - Methodology and Work Schedule) and consisted of three key phases: the *inception* phase (*July 24 to July 29*), when the study methodology, data collection tools, schedule, and structure of this report were refined. This phase included literature review and document analysis, briefings with the project team and representatives of the pilot AOs to familiarize them with the project and study methodology. *The second phase* (*July 30 to September 12*) included piloting of the toolkit, data collection in the project's pilot aimags (districts) during meetings with staff of target municipalities and regional authorities, citizens and entrepreneurs with experience in receiving public services, representatives of NGOs, experts, and preparation of a list of digital platforms for public services. At the third stage (September 15 - October 31), a telephone survey of citizens and entrepreneurs, heuristic analysis of ten platforms and their user (usability) testing were conducted, preliminary results of the study were prepared and presented for representatives of government agencies, district administrations of the project pilot regions, NGOs, national experts, DVV International and IYD staff and embassy representatives, as well as preparation of the final report on the results of the study.

The main objectives of the study are

- Conduct a regulatory and literature review and prepare data collection tools.
- Review and analyze current digital platforms used to deliver public services, including websites, mobile apps and other online platforms and prepare a list of platforms.
- Evaluate the quality and usability of the platforms and their relevance to user needs.
- To investigate the effectiveness of the services provided on various digital platforms in terms of speed, accessibility and accuracy of information.
- Examine the security and data protection measures of the platforms under consideration.
- To assess the level of satisfaction of citizens and entrepreneurs with their experience of using digital platforms for public services.
- Identify requirements and problematic points in working with the platforms.
- Conduct focus group discussions with users of digital platforms to explore their experiences of using them.
- Analyze data from surveys, focus group discussions, and semi-structured interviews.
- Prepare a report with the results of the study, recommendations for the project, AOs, government agencies, including on digital and media strategies in the field, as well as thematic focus of training programs.
- Based on the data and report, prepare data visualization for visual presentation of the research results on the project sites, as well as presentations of the research results in Kyrgyz and Russian languages.

Geography of the study:

All 7 oblasts (regions) of Kyrgyzstan - 29 pilot locations in 10 districts and 3 cities:

1. Batken oblast - 6 locations in Kara-Bulak, Samarkandek, Kyshtut AOs of Batken rayon and Birlik, Masaliev, Moldo Niyaz AOs of Kadamjai rayon;

2. Osh oblast - 6 locations in Kyzyl Oktyabr, Myrzak, Kurshab of Uzgen district and AO Kerme-Too, Yusupov, Dobo-Korgon of Aravan district;
3. Jalal-Abad oblast - 3 locations in Kara-Kamysh, Sary-Chelek and Kerben town hall of Aksy district;
4. Chui oblast - 2 locations in city halls of Kara-Balta, Tokmok;
5. Talas oblast - 3 locations in AO Cholponbai, Sheker, Kara-Buura of Aitmatov district;
6. Issyk-Kul oblast - 3 pilot AOs Ulakhol, Kun Chygysh, Ak-Terek in Ton district;
7. Naryn oblast - 6 locations of Baetov, Kara-Burgon, Ala-Buga AOs of Ak-Tali district, and Chaek, Kuiruchuk-Kyzart, Baizak AOs of Zhumgal district.

Target groups of the study

1. Citizens who use digital platforms to obtain various government services;
2. Entrepreneurs and representatives of organizations that interact with state and municipal institutions through digital channels;
3. Organizations representing citizens and the business community that can provide feedback on behalf of their members or third-party participants;
4. Staff of government agencies responsible for developing, maintaining and improving digital platforms for public service delivery;
5. Managers and professionals involved in the digitalization of the public sector and the optimization of service delivery processes;
6. Professionals in information technology, data analytics, user experience and information security who can bring expert opinion and assistance in evaluating digital platforms;
7. Scholars, researchers and academic institutions that are interested in the development of digitalization of public and municipal services and can use the results of the study in their work.

IV. RESEARCH METHODOLOGY

The study used a mixed method of qualitative and quantitative data collection: a review of NAPs, literature, UX heuristic evaluation of 10 platforms, 8 focus group discussions with citizens and municipal employees; 138 in-depth interviews with target groups, UI testing of 10 platforms were conducted. A total of 311 people participated in the qualitative phase in interviews and FGDs, of which 49% were men, 51% women. In addition, a telephone survey of citizens and entrepreneurs with experience of receiving public services on digital platforms, and with data entry into Google form and processing with Google tools was conducted. A total of 464 respondents were interviewed, of which 58% were female and 42% male. The sampling of respondents was a two-stage, snowball sampling method. Triangulation was done to verify the data. The methods used allowed us to collect quantitative and qualitative information about different points of view on a given topic in a more in-depth and comprehensive manner. The results of FGDs and surveys do not claim to be representative, but allow us to collect complete information about different viewpoints of target groups on a given topic more deeply and completely. For the survey of citizens and entrepreneurs, a questionnaire with closed questions was used, where respondents had to choose the answer options they agreed with. For the heuristic evaluation of the platforms and their piloting, 10 platforms agreed with the customer were selected. The platforms were selected for their diversity and to serve the needs of young people. The heuristic evaluation was carried out using criteria. To test the ten platforms, thirty users were offered tasks for each of the 10 platforms. The users were residents of the pilot regions and IT experts. A total of 30 people, 13 women, 17 men. The *language of discussions* on FGDs, interviews, survey, testing of

platforms - Kyrgyz, Russian. All respondents of the study participated in the evaluation activities on the basis of informed consent.

Limitations of the study

1. Not all state and local government representatives were available due to summer vacations or busy schedules.
2. Due to the actualization of legal requirements on access to personal data and adoption of amendments to the Law of the Kyrgyz Republic "On non-profit organizations" from April 2, 2024 № 72, researchers at sites faced a large number of refusals to participate in the survey, interviews, providing information and requests not to include their names in the report.

V. ASSESSING THE QUALITY, EFFICIENCY AND ACCESSIBILITY OF DIGITAL PLATFORMS: KEY FINDINGS

1. Overall assessment of digital

Kyrgyzstan has made significant progress in the digital transformation of public services. Several digital platforms play a key role in this: The main one is the state electronic interaction system "Tunduk". It ensures efficient data exchange between government agencies and citizens. More than 50 popular services, including the receipt of various official documents, are available through the portal and mobile application "Tunduk". The system was launched in 2018. Since then, it has been actively developing, integrating new databases and information systems. In 9 months of 2024, about 11 million services were provided online through the portal and mobile application "Tunduk", the number of users reached 1,720,752 people. 165 state services and services were realized on the state portal (hereinafter referred to as Gosportal).[1] 22.5 million services were received by users of the state portal Tunduk, 858,220 people visited the state portal in 2024. 1.46 billion soms and 18.7 million hours were saved by citizens. To date, state services have been successfully placed in four banking mobile applications MegaPay, Mbank, Bakai, My O![2] . Also, Kyrgyzstan is implementing the Unified System of Identification and Authentication ESIA[3] . It provides secure authorization of citizens for access to state electronic portals. This initiative is part of the program "Digital Kyrgyzstan 2019-2023" aimed at improving the efficiency of public administration and improving the provision of public services. In addition, the Open Data Concept of the Kyrgyz Republic for the period of 2022-2024 was adopted, which defined the principles of open data disclosure, which is the basis for disclosure of information on the activities of state bodies, data containing information collected, stored, processed or published by state bodies in the exercise of their powers, as well as contains priority areas, expected results from the implementation of the open data initiative in the Kyrgyz Republic.[4]

In 2020, the UN World Food Program launched in Kyrgyzstan a pilot project of digital financial services - electronic wallets **(**E-wallets) to distribute cash assistance to vulnerable families. This ensures the security, tracking and effectiveness of humanitarian assistance. PPPs with financial structures to provide digital financial services to citizens continue to develop.

[1] See Report on the activities of the Tunduk State Institution under the IDC KR until September 2024, URL: https://digital.gov.kg/activities/otchet-gu-t%D2%AFnd%D2%AFk-pri-mczr-kr-do-sentyabrya-2024-goda/
[2] See Infographic of the State e-Services Portal, https://portal.tunduk.kg/
[3] See: https://portal.tunduk.kg/help_support/one_chavo/6
[4] See: https://cbd.minjust.gov.kg/30-155/edition/1186422/ru

Control over processing and protection of personal data. Digitalization, along with its benefits, brings risks to the security of citizens' personal data. Widespread collection and processing of information by various organizations increases the likelihood of its illegal use. In response to these challenges, based on international experience, in the Kyrgyz Republic 2021 was established a state authority Agency for Personal Data Protection under the Cabinet of Ministers of the Kyrgyz Republic. This body is designed to improve legislation, control the handling of personal data and strengthen the system of their protection, ensuring a balance between the development of digital technologies and the security of citizens.

Thus, the main digital public services for citizens in Kyrgyzstan are related to e-government, digital financial instruments and personal data protection. However, it should be noted that these initiatives are still at the stage of development and implementation.

In addition, the country is in the process of implementing the Digital Transformation Concept for 2024-2028 and is strengthening information security measures. Kyrgyzstan participates in global initiatives to accelerate digital transformation, such as GovStack and Digital Public Goods. They provide tools and support for creating interoperable, scalable digital services. The overall coordination of the digital agenda is carried out by the Ministry of Digital Development, established in 2021. Its task is to digitize public services and increase the number of services available to the population online. Thanks to these initiatives, Kyrgyzstan is demonstrating significant progress in various sectors where digitalization is central to the national development strategy. This includes improving digital public services, financial technology and telecommunications. The country is a pioneer in digital regulation, in particular through the pioneering Digital Code, which aims to consolidate all digital regulations into a single legal framework and is under discussion.

More than 3,000 organizations are connected to the Infodox electronic document management system, with 153,000 active users, 18 million electronic documents processed,[5] about 2 million cloud-based electronic digital signatures issued, 727,000 signatures issued through CSCs, and more than 1 million signatures issued remotely. For infrastructural development, the State Data Processing Center has been created, an interdepartmental electronic interaction system has been implemented, and integration with banking services has been realized. The following services are already available: Online registration of motor vehicles, Online registration of legal entities, Online registration of real estate.

The government, realizing the current limitations, is making every effort to develop digital infrastructure. For this purpose, the IDC with the support of the WB is implementing the **"Digital CASA-Kyrgyz Republic" project**. The key component of the project - "Regional Digital Connectivity Infrastructure" - aims to develop high-speed data transmission in the country through the construction of more than 2500 km of new fiber-optic communication lines (FOCL). Under the project, by the end of 2024, a new backbone transport network with a speed of up to 200 Gbit/s will be built covering all regions of the country, as well as a distribution network with a speed of up to 100 Gbit/s, which will provide access to broadband Internet in more than 200 settlements. In addition, it is planned to connect over 1,400 state social facilities to the fiber-optic network. The project will provide high-speed Internet access to about 4,000 facilities, including schools, medical centers, libraries and local government bodies. Thanks to the point-of-presence (PoP) principle, Internet service providers will be able to provide services in previously

5 See: https://kabar.kg/news/v-sed-infodoks-s-nachala-goda-oformleno-3-mln-dokumentov/

uneconomic areas. The project also includes two new cross-border connections to Kazakhstan and Uzbekistan, which will improve reliability and expand international data links.[6]

As part of the implementation of the Concept of Digital Transformation of the Kyrgyz Republic for 2024-2028, the Action Plan provides for a set of measures to improve digital literacy of the population and digital competencies of civil servants to ensure the effective use of digital public services by all categories of citizens and improve the quality of public service by civil servants in the digital era.

The State Agency for Public Service and Local Self-Government together with the Ministry of Education and Science and the High Technology Park have been instructed to develop and approve a plan of cooperation with international educational institutions by the end of 2024. The main goal is to improve the digital competencies of state and municipal employees.

In parallel, ministries and agencies should permanently implement measures to develop citizens' digital skills. This includes organizing online courses and training on the use of government services and digital solutions, as well as actively informing the population through the media about available digital products of the state.

To ensure the openness of data, the IDC, ministries and agencies should automate the process of publishing, updating open data on the open data portal by September 20, 2025.

At least once a year, conduct information campaigns with videos, instructions and chatbots to help citizens understand the system of social payments and correctly execute all necessary documents .[7]

The key achievements of digital transformation are:

- Having a vision for digital transformation
- Establishment of specialized state structures
- Development of the Digital Code
- Development of broadband Internet infrastructure
- Formation of information systems and databases
- Development of digital portals for access to information, public services
- Update information, develop content, instructions, tutorials, open data.

Thus, all planned digital transformation activities of the government create a constructive basis for the project to cooperate with the above-mentioned ministries and agencies during the life of the project.

2. Overview of current digital platforms used to deliver public services, including websites, mobile applications and other online platforms

Digital Transformation of Public Services in the Kyrgyz Republic

In recent years, Kyrgyzstan has been actively developing mechanisms of digital interaction between the state and citizens through websites and portals. This trend covers key areas of society, opening new opportunities to improve the quality and accessibility of public services. In summer 2024, the Unified Register of public services provided by government agencies and their subordinate institutions was approved.

[6] See "On the activities of the DIGITAL CASA-KR project for the year 2023 - 2024. Component 1 Regional Infrastructure for Digital Connectivity." https://digital.gov.kg/activities/o-deyatelnosti-proekta-digital-casa- kr-za-2023-2024-god-komponent-1-regionalnaya-infrastruktura-czifrovoj-svyazannosti/

[7] https://cbd.minjust.gov.kg/57-19271/edition/14721/ru?anchor=pr

Access to information and open data

Portals of state and municipal bodies of Kyrgyzstan provide citizens with access to information in accordance with the Law on the Right of Access to Information, which guarantees openness and transparency of data. The main methods include official websites such as president.kg and kenesh.kg, websites of ministries and agencies, municipal authorities at all levels, and the Tunduk system for interagency interaction. Technological solutions ensure accessibility of information for all categories of citizens, including people with disabilities. In addition, state and municipal bodies actively use social networks Facebook, Instagram and YouTube channels to inform and educate citizens, which provide prompt access to press releases, other relevant information and allow to reach a wide audience, increasing transparency and openness of the activities of the authorities. YouTube channels serve as a platform for educational videos that help citizens to better understand legal issues and procedures related to government activities, as well as to learn about new public services and develop digital skills to use them. These communication channels facilitate better engagement with the public. As a result of the APR (administrative-territorial reform), the websites of all aiyl okmotu underwent changes and were fully updated. The portal "My Ayil Aymak" and the magazine "Municipality" provide information support to young professionals in the field of municipal management, promoting their active participation in local self-governance.

The Open Data Initiative in Kyrgyzstan is aimed at increasing transparency and accountability of public bodies. The Open Data Portal provides free access to information on the activities of government agencies in a machine-readable format. This opens new opportunities for public control and development of innovative services based on open data. In addition, the portals of ministries have their own sections of open data. For example, on the MES portal one can view and use open data of the Education Management Information System.[8] The portal "Open Budget"[9] of the Ministry of Finance of the Kyrgyz Republic, which is an automated system of providing data on revenues and expenditures of the republican and local budgets, provides transparency of public finances and the possibility of public control. Thus, according to the DPI survey in 2021, "every third surveyed citizen(s) or 78% of respondents participated in public hearings of budget hearings on draft budgets for 2022. A total of 38015 people (including 44% women) participated in the hearings. At the same time, among the participants, those who expressed satisfaction with participation in the hearings are the absolute majority - 92%. The minority who were dissatisfied with the hearings believe that the information was insufficient, that some questions were left unanswered, however, 65% of those who did not participate in the hearings still know some information about the local budget. People see the benefit of participation in the hearings, as they can not only get information about the budget, but also make their proposals, ask questions, realize their right to participate in the distribution of budget funds and control over this distribution".[10]

Tunduk interdepartmental electronic interaction system

One of the key elements of Kyrgyzstan's digital infrastructure is the Tunduk system of interagency electronic interaction. Launched in 2018, this system ensures secure data exchange between state bodies, local self-government bodies and commercial organizations. "Tunduk significantly simplifies the processes of providing public services, reducing bureaucratic barriers and minimizing corruption risks.

Tyndyc State e-service portal

[8] See: https://open.edu.gov.kg/index.php
[9] See: https://budget.okmot.kg/ru/home
[10] Polls. "The absolute majority of citizens express satisfaction with participation in public hearings on the budget". Project "Voice of Citizens and Accountability of LSG Bodies: Budget Process" (Government of Switzerland, 2011-2022). URL: https://dpi.kg/ru/monitor/full/34.html

In 2020, the State Portal of e-Services was modernized. This platform provides citizens with access to a wide range of public services in electronic format. Through the portal it is possible to obtain various certificates, execute documents, submit applications and much more. A cloud-based electronic signature or a biometric passport with ID-card is used for authentication.

Tunduk mobile app

The Tunduk mobile application was developed to improve the accessibility of electronic public services. It allows citizens to receive government services and information via smartphones, making interaction with the state even more convenient and prompt.

Health care

Digital medical services are actively developing in Kyrgyzstan. Online appointments with doctors have been introduced through the i.med.kg portal and the Tunduk and MegaPay applications. Patients can choose a specialist, date and time of appointment. This service improves accessibility and quality of medical services, especially for vulnerable groups. October 2024 marked the launch of a large-scale program of the Ministry of Health of the Kyrgyz Republic and the UN aimed at modernizing the health care system. The initiative includes the connection of 3 million vaccination records to electronic medical records, online access to test results for 200 thousand citizens, digital disability certificates and electronic sick leave. Telemedicine for children and mothers is being developed.

Education

The COVID-19 pandemic has become a catalyst for digital transformation of the educational sphere, and the MES has become one of the drivers of training in digital skills and Internet services for teachers, students and their parents. By the beginning of 2024, almost 100% of schools are connected to the Internet[11] and in the 2024/25 school year, the MES plans to provide 80,000 teachers with laptops.[12] The introduction of information systems such as "Smart School" and "Electronic School Enrollment", "Abiturient Online" has significantly simplified administrative processes. The electronic library "Kitep" provided access to textbooks and literature for all grades, and educational platforms for additional training "Ibilim" and "Oku" enriched the educational process with interactive content. The Jany Kitep information system facilitated the inventory of textbooks and facilitated access to them through rentals, reducing costs for parents. In the process of piloting are the electronic diary "Kundoluk", electronic school, improving the information system of education management, as well as access to open data: open.edu.gov.kg on the website of the Ministry of Education and Science. In higher education, a "Unified Electronic Education Management System" is in place. These initiatives expand educational opportunities for young people, especially in remote regions. Under PPP projects, NGOs and international organizations develop electronic teaching and learning resources for the education sector, develop thematic portals, and help build digital skills of teachers, librarians, and methodologists through mixed training (online and offline). For example, for the project "Building a Transparent Future for Rural Communities", the Center for Civic Initiatives "Leader" in the city of Karakol developed and integrated the "Information System "Statistical Heat Map" (https://check.edu.gov.kg/) into the MES portal, and implemented a curriculum for vocational lyceums on the basics of business and entrepreneurship with taking into account digitalization. Taalim-Forum developed a portal with an e-course "E-Oku" for self-training of teachers in digital tools and transferred the approved course to RIPKiPPK and Naryn State University.

[11] See: Education Management Information System. Open Data.URL: https://open.edu.gov.kg/index.php

[12] See: Kyrgyz authorities to buy laptops for 80 thousand school teachers. URL: https://economist.kg/society/2024/10/09/vlasti-kyrghyzstana-zakupiat-noutbuki-dlia-80-tysiach-shkolnykh-uchitieliei/

Social protection

June 2024 was marked by the establishment of the Center for Digitalization of Social Protection under the relevant ministry. This step is aimed at optimizing the provision of social services through the introduction of online services. Now citizens can apply for benefits, receive consultations and participate in training programs online from the comfort of their homes. This approach significantly increases the accessibility of social support for vulnerable categories of the population.

Legislative work with citizen participation

Kyrgyzstan is actively involving the population in the discussion of draft legal acts through online platforms. A unified portal for public discussion of draft laws and regulations allows citizens, including young people, to participate in the lawmaking process. Participants can comment and propose amendments, while the state body-developer is obliged to publish information about the proposals received and justify their inclusion or rejection. This mechanism ensures transparency of the rule-making process and consideration of citizens' opinions. However, there is no information on accepted or rejected proposals on the portal.

Taxation and business support

The State Tax Service is introducing digital tools to simplify tax procedures. Citizens and companies submit electronic tax declarations through the STS portal and personal cabinet, Electronic invoices, online KKM and mobile application Salyk.kg make life much easier for entrepreneurs. Preferential taxation of e-commerce with a rate of 2% of revenue stimulates the development of this sector. These measures contribute to increasing the transparency of the economy and reducing business costs. The number of users of the "Taxpayer's Cabinet" has reached 1.14 million people, of which almost 100 thousand use electronic digital signature. New digital services have been introduced, including automated report generation, online registration of individual entrepreneurs, service quality assessment and the "Tax Payment" module. The system of electronic invoices covered more than 104 thousand taxpayers, through which more than 50.3 million documents worth 7.1 trillion soms were issued. The system of electronic consignment notes (ECTN) is successfully functioning with 51.7 thousand users. The number of registered cash registers has reached 102 thousand, which demonstrates a significant increase in digitalization of tax administration. The agency intends to open more service centers and expand the list of electronic services.[13]

Public procurement in electronic format

Since 2015, all public procurements have been conducted on the specialized portal zakupki.gov.kg. This system ensures full transparency of the process from the publication of the announcement to the conclusion of the contract. Any supplier can register and participate in tenders on equal terms. The introduction of electronic auctions and catalogs of goods optimizes budget expenditures and improves the quality of purchased products.

Citizen participation in elections

Kyrgyzstan has introduced a set of digital technologies to improve the formation of voter lists and the organization of elections. The Unified State Population Register automatically uploads data on citizens who have reached the age of 18 and have undergone biometric registration. The State Portal allows voters to check and clarify their data online. The system of electronic interdepartmental interaction ensures prompt exchange of information between the Central Election Commission and state bodies. The State Voter Portal and the Tandoo mobile application are

[13] The State Tax Service of the Kyrgyz Republic summarized the results of activities for the first half of 2024 / State Tax Service of the Kyrgyz Republic // State Tax Service of the Kyrgyz Republic: website. - URL: https://sti.gov.kg/news/details/0c3ad10b-4683-46e2-9776-53772d827490 (date of address: 03.1.2024)

used to increase the transparency of the electoral process and to engage young voters. These tools facilitate access to electoral information and enable young people to participate more actively in the political life of the country. Remote voting, successfully tested in 2023, is planned to be used in the November 17, 2024 election. However, experts express concerns about the transparency of the process, which requires additional measures to ensure voter confidence.

Involvement of youth in governance

Almost all state and municipal digital platforms for public services provide access to information and interaction with government agencies. In order to activate the participation of the younger generation in PPP decision-making processes, the portal www.volunteer.kg was created. This platform serves as an effective tool for dialog between the state and youth, providing opportunities to discuss topical issues and implement joint projects. Volunteer initiatives create conditions for the development of social responsibility and leadership skills. On the technological side, the digital platform provides interaction between different parties, informing, coordinating, collecting data on the involved organizations. On the institutional side, youth organizations act as independent subjects implementing relevant projects, capable of generating innovative solutions to public problems. They engage in intersectoral partnerships, help to develop new mechanisms of social mobility and can contribute to the development of youth policy.

Access to information platforms for youth in crisis categories

According to the results of the 2021 survey initiated by the UN System in the Kyrgyz Republic with the support of the Ministry of Culture, Information, Sports and Youth Policy of the Kyrgyz Republic to determine the vulnerability of different groups of young people in the country, as well as their access to basic services in the field of education, health, information, law, employment, political and civic participation, at the beginning of 2021, young people from crisis categories have access to information platforms, but reliable information is limited. Only 69.9% of PWD respondents answered that can use information on official websites because it is adapted for the visually impaired.[14]

Thus, Kyrgyzstan demonstrates significant progress in the development of digital platforms for public services. Analysis of the current state of digital platforms in the Kyrgyz Republic shows that they do provide significant opportunities for access to information and interaction with government agencies. However, it is still premature to say that these platforms actively involve young people in the decision-making process:

1. Access to information: digital platforms such as the state portal of e-services and the mobile application "Tunduk", websites of ministries and agencies, LSG bodies, as well as social networks of state bodies, do provide wide access to information about the activities of the state. This allows young people to keep abreast of ongoing processes and decisions.
2. Opportunities for interaction: Existing platforms provide certain tools for interaction with government agencies, including electronic appeals, participation in online surveys and discussions of draft regulations. However, these mechanisms do not yet ensure the full involvement of young people in decision-making processes.
3. Limited influence on decision-making: despite the availability of digital tools, their influence on actual decision-making processes remains limited. There are no clear mechanisms to take into account the opinions and suggestions of young people expressed through digital platforms when shaping public policy.

[14] Access of Vulnerable Youth to Key Services in the Kyrgyz Republic. Bishkek, 2021, p.83

4.Insufficient adaptation to the needs of young people: existing platforms do not always take into account the specific interests and needs of the youth audience. There are no specialized sections or functions aimed specifically at involving young people in decision-making processes.

5.Limited feedback: Platforms do not yet provide effective feedback on the results of youth participation. Young people rarely receive information on how their suggestions or opinions have influenced decisions, which reduces motivation for further participation.

3. Evaluating the quality, efficiency and accessibility of digital platforms.

Results of focus group discussions and key informant interviews

FGD and interviews with key informants showed that residents of villages and towns apply to ail okmotu and mayor's office respectively for help in obtaining certificates when applying for loans, as they are not informed about the availability of digital public services, AO assists a citizen or entrepreneur by informing about this possibility.

All key informants noted that citizens and entrepreneurs, receiving digital public services compared to traditional public services received and use the opportunity:

- save financial means for a trip to the Center, time and nerves for receiving services
- receive the TSG at convenient times of the day and night, according to their work schedule, in their own comfort, at their own pace, carefully reading and re-reading the necessary information for their own understanding,
- Receive and use documents, transmit to the place of demand in electronic format
- Observe increased transparency of the processes and stages of obtaining TSIs, procurement, reporting, payments, enrollment in kindergartens, schools, universities.
- Not to meet face-to-face with representatives of government agencies, but to interact with them indirectly through platforms.
- Save resources by reducing corruption (confirms the DPI study's conclusion that digitalization reduces corruption).

Specificity of answers of different categories of informants is due to different needs of using digital public services and platforms, practices and problems they face when receiving public services. All categories of informants noted the convenience of the portal and mobile application "Tunduk", ease of registration to schools and kindergartens.

Citizens' opinions

Citizens in general positively evaluate the possibility of obtaining public services online. But citizens use digital public services irregularly, as needed: enrollment in kindergarten, school, enrollment in universities, obtaining a loan, passport, etc. The most attractive aspects of digital platforms are:

- time saving;
- saving finances on transportation costs and notary services to certify documents and certificates;
- the possibility of receiving documents in electronic format;
- Reducing the need for personal visits to government agencies;
- reduction of corruption.

However, there are also significant citizen concerns:

1. Lack of awareness of the possibilities of digital public services and mobile application.

2. Lack of digital literacy, problem with passwords, Tunduc login, email requirement.
3. Difficulties with navigation on the platforms
4. Technical limitations in the operation of services
5. Difficulties in completing electronic declarations
6. Leakage of personal data and funds due to non-compliance with digital hygiene and security, involvement of third parties to assist in opening Tunduk, access to personal account for filling out declarations, banking mobile applications, excessive requirement to provide a copy of passport, etc.
7. Many young people are unaware of the opportunities that exist to influence decision-making processes through digital platforms.
8. Not all polyclinics respect the priority of the electronic queue.
9. Still require schools, banks to bring printed certificates from Tunduk.
10. Not all updated forms of certificates or documents are immediately posted on Tunduc, forcing you to visit them to obtain certificates for a fee (for example: criminal record).

Opinions of entrepreneurs

Entrepreneurs demonstrate a higher interest in the quality of digital platforms, as they have to interact with government agencies on a regular basis in accordance with mandatory tax reporting and high risks of fines in case of late reporting. Entrepreneurs actively use digital platforms to solve business problems, especially noting the convenience of online tax reporting. However, they are more likely to encounter technical problems, especially during periods of high load on the systems. Entrepreneurs express interest in further development of the platforms' functionality, especially in the area of financial transactions and document management.

Along with the above-mentioned advantages, entrepreneurs point out the challenges:

1. complexity of filling in electronic declarations, ESFs, ETTNs;
2. lack of clear information on tax liabilities;
3. technical limitations of the platforms;
4. too many different reporting platforms;
5. redundant and non-personalized reporting information in the personal cabinet of entrepreneurs;
6. absence of tax reporting in Kyrgyz language;
7. reporting problems during busy periods and early in the week;
8. personal data security issues;
9. provide access to the accountant to the data of the IP in Tunduk without the risk of personal data leakage.

Position of state and municipal employees

Employees of the state municipal bodies and local administrations of the pilot AOs and mayoralties use the following digital information portals:

- voter list - https://tizme.gov.kg/
- http://darek.kg/ system of interdepartmental exchange and provision of address data from a single source
- AIS "Sanarip aimak"- https://aymak.srs.kg/
- AIS "e-Kyzmat"- https://newhrmis.srs.kg
- AIS "Centralized Accounting" https://buh.okmot.kg/
- AIS "Probation" https://ais.probation.gov.kg/

- AIS "Address and Reference Bureau"
- Veterinary animal record system https://aits.gvfi.gov.kg/home
- Public procurement portal http://zakupki.gov.kg/
- AIS "EDMS "Infodocs" electronic document management system
- Public services upon citizens' request: https://portal.tunduk.kg/public_services/new_message_sed
- Section on the GAMSUMO website Municipal Service Personnel Reserve https://mkk.gov.kg/ru/муниципальный-резерв-кадров

State and municipal employees interviewed report significant efficiency gains due to digital platforms:

- Reducing bureaucratic burden;
- Optimization of document flow;
- Increased transparency of processes;
- Increased personal security due to decreased corruption;
- Reduced flow of visitors, except for the period of tax returns, declarations and problems of citizens in the process of applying for loans, etc;

Also:

- Increased time to familiarize with NAPs due to APAC reform and digital transformation;
- More time is needed to learn how to work with information systems and develop skills in them, the Internet and computers;
- Increased time to get to know the community and colleagues due to the APR and the resulting renewal and rejuvenation of municipal membership.
- Assisting citizens and entrepreneurs in obtaining digital public services in case of misunderstandings, lack of information or problematic situations/errors with data in information systems.

However, they recognize the challenges faced by all categories of citizens using digital platforms:

- Insufficient awareness of citizens about digital government platforms and services;
- Low digital literacy of the population, especially of the older generation;
- Difficulties in using digital platforms and registering with information systems for people with health and resource limitations;
- Instability and power outages (especially in the Issyk-Kul region);
- Technical and process failures with high load on portals;
- Frequent changes in the structure of tax documents, and on the portal of public services;
- Quality of data entered into information systems, still have errors or not all data entered;
- Difficult language of instructions in Kyrgyz and Russian, tax documents are still in Russian;
- Incomplete data integration (still in process) between agencies;
- Open data can be found on different portals
- There is a leak of personal data (passwords, commercial information, etc.) of civil servants, entrepreneurs, citizens during the submission of tax declarations, reporting, opening of mobile application "Tunduk", banking applications due to the involvement of third parties by inexperienced citizens in assisting them to open applications, in filling in forms of declarations, reporting, etc.

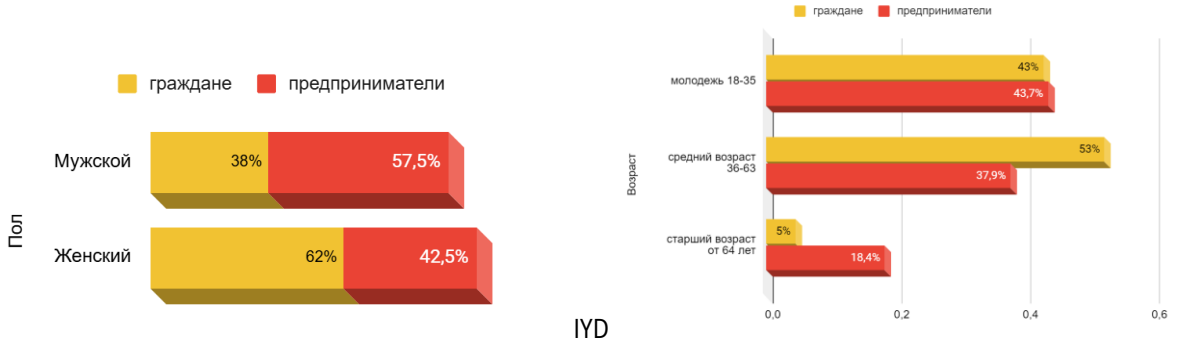
6.There is little information for young people on the platforms of state bodies and AOs/mayors' offices, there are no special pages for them, no one has thought about how to involve young people and other categories of citizens in decision-making processes through digital platforms.

Key recommendations from all informants of the baseline assessment to promote digital platforms for public services:

1. Raising awareness and sensitization of citizens and entrepreneurs about the benefits of digital public services for each category of citizens separately and regularity in this process;
2. Raising awareness of digital health and safety through concrete examples or case studies and regularity due to the increase in fraud;
3. Development of digital literacy of various categories of the population;
4. Development of digital skills of aiyl okmotu staff and skills in data handling and analysis, development of outreach skills;
5. Improving the user interface of the platforms;
6. Expanding the functionality of the platforms;
7. Providing technical support;
8. Creating alternative ways to receive services;
9. Systematization and unification of terminology and concepts on the portals of public services both in the state and official languages.
10. Use the priority of electronic queue/documents over conventional/paper queue to popularize such services.

Results of the survey of citizens and entrepreneurs

Socio-demographic profile of survey participants:



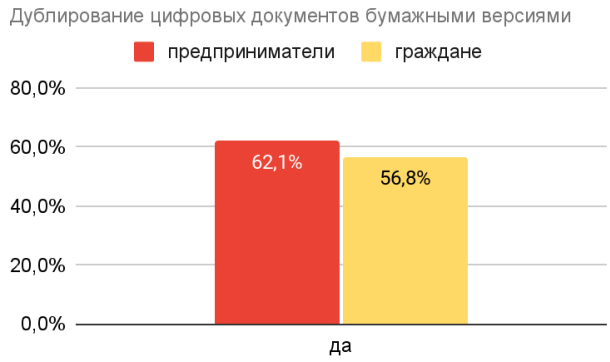
IYD

Analysis of the results of the survey of citizens and entrepreneurs on the use of digital platforms for public services

Citizens

The survey results demonstrate the active use of digital public services by the majority of citizens of Kyrgyzstan. To access electronic services, respondents mainly use mobile devices - smartphones and tablets. The most popular among citizens are the mobile application and website "Tunduk", as well as the system of electronic queue to the doctor in the polyclinic.

The effectiveness of digital platforms is confirmed by the fact that 70% of citizens were able to fully solve their issues online, 19.4% - partially, and only 10.6% did not achieve the desired result through electronic services. The usability of digital platforms is rated quite high - the average score was 4.24 out of 5.

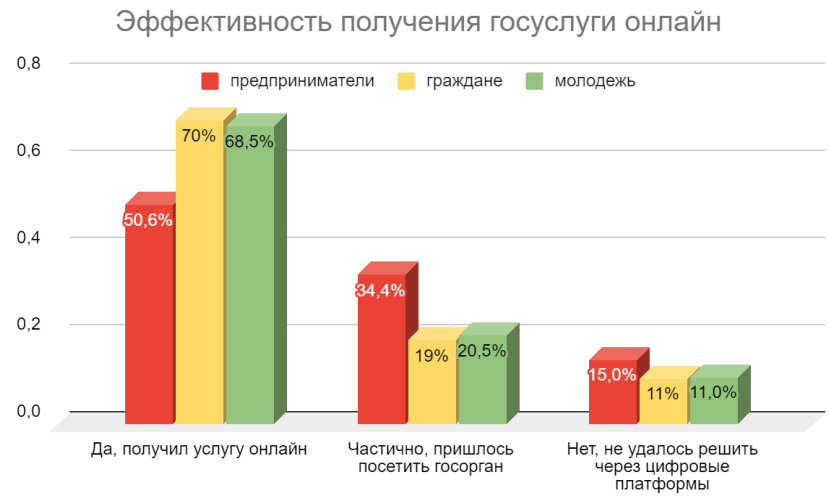


It is interesting to note that 75.6% of citizens rarely encounter problems when using digital platforms of public services. However, there is a problem of duplication of documents: 56.8% of citizen respondents noted that they continue to be asked for paper copies when providing certificates digitally. This indicates the need to further optimize processes and increase trust in electronic documents.

Assessing various aspects of digital platforms, citizens highly appreciated the availability of content in Kyrgyz (4.24 points) and Russian (4.13 points). The least satisfactory was the speed of work and loading of pages (3.55 points), which can become a benchmark for technical improvement of services.

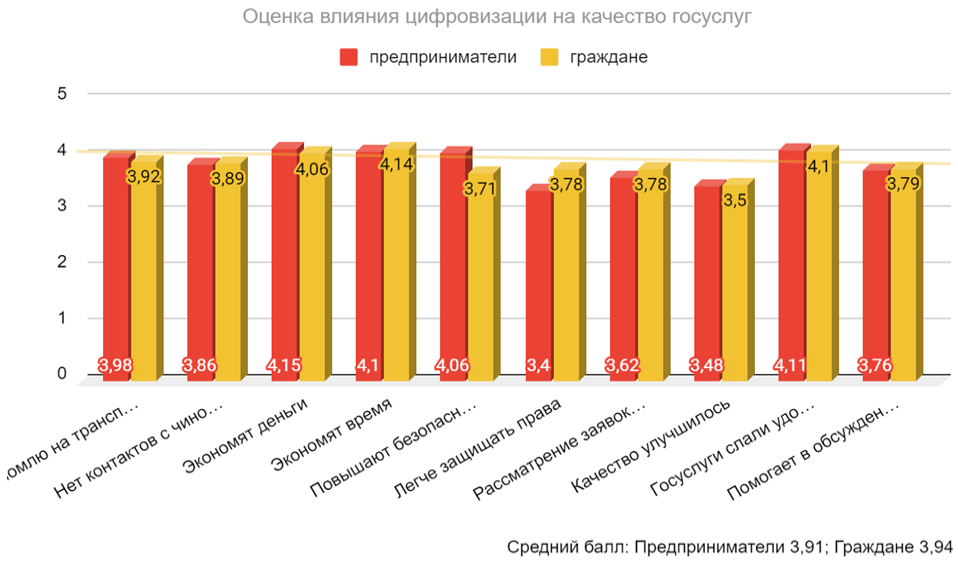
Most citizens use mobile banking to pay for certificates, which indicates a high level of their adaptation to digital financial instruments. Less popular, but also in demand, are payment terminals and traditional methods via bank or post office.

Entrepreneurs



Analysis of businessmen's answers revealed some differences from the general group of citizens. Among businessmen, the share of those who were able to fully solve their question online is lower - 50.6% against 70% of ordinary citizens. At the same time, 34.4% of entrepreneurs partially solved their issue online, but they had to visit a government agency in person to complete the public service.

Entrepreneurs more often face problems when using digital platforms: 51.7% noted that short-term difficulties sometimes arise. This may be due to the more intensive use of public services for business purposes and increased requirements for the functionality of services. Despite this, overall satisfaction with the quality of digital public services among entrepreneurs remains high, with an average score of 4.13 out of 5. It is interesting that entrepreneurs have a slightly lower assessment of the security of state portals for personal data and confidential information (3.4 points) compared to ordinary citizens (3.74). This indicates an increased attention of the business community to information security issues.



Entrepreneurs are more likely to use computers to access digital public services, which may be due to the need to work with more complex forms and documents. They are also more likely to use online banking services via computer to pay for certificates, which is related to the specifics of their business.

The assessment of accessibility of digital platforms for people with disabilities among entrepreneurs was slightly lower than among ordinary citizens - 3.6 points. This may indicate a more critical view of the business community on this aspect.

Youth

Young people aged 18-35 demonstrate the highest level of adaptation to digital public services. 68.5% of young respondents were able to fully resolve their issue online, which is close to the indicator of the general group of citizens. Young people also highly rate the usability of digital platforms - the average score was 4.22 out of 5.

It is noteworthy that 74.5% of young people rarely encounter problems when using digital platforms of public services. This may indicate a higher level of digital literacy among the younger generation. However, 50% of young respondents noted that there are sometimes short-term problems, indicating the need for further improvement of services.

Young people predominantly use smartphones to access digital public services, reflecting the general trend of mobility among this age group. They actively use mobile banking and e-wallets to pay for certificates, indicating a high level of trust in digital financial instruments.

Young people's assessment of the accessibility of digital platforms for people with disabilities was the highest among all groups - 4.1 points. This may indicate that young people are more aware of existing technological solutions for people with special needs.

Young people prefer digital channels when it comes to obtaining information about the work of local authorities. Social networks and messengers are the main sources of news for this age group. Many young people also noted the use of mobile applications to get up-to-date information about the activities of aiyl okmotu and mayor's offices.

Men and women

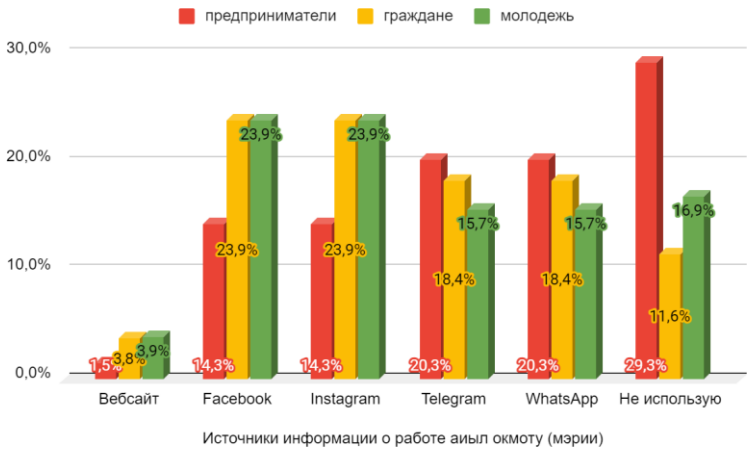
Analysis of responses by gender groups revealed some interesting differences. Women more often use smartphones to access digital government services, while men are more inclined to use computers. Men who use computers are mostly entrepreneurs.

In assessing the accessibility of digital platforms for people with disabilities These differences are not significant. Women give slightly higher ratings (3.9 points) than men (3.7 points). This may indicate that the female audience has a more optimistic view of this aspect.

As for the methods of payment of certificates, no significant gender differences were revealed. Both men and women prefer to use mobile banking. However, women entrepreneurs more often turn to family and friends for help in obtaining digital certificates or submitting reports (32.4% vs. 18% for men). Among ordinary citizens, this difference is less pronounced but is also present (17.1% of women vs. 9.1% of men).

In evaluating various aspects of digital platforms, women generally give higher scores than men. For example, female entrepreneurs rated the security of state portals for personal data at 4.11 points, while men rated it at 3.74 points. This may indicate a more positive perception of digital public services among the female audience.

It is interesting to note that women are generally more modest about their digital platform skills than men. This may be due to differences in self-perception and confidence levels in technical matters.



When it comes to choosing sources of information about the work of local authorities, women are more active in using social networks and messengers. Men, in turn, more often turn to official websites and specialized information resources.

Satisfaction of citizens and entrepreneurs

Based on the data analysis, the following conclusions can be drawn about satisfaction with digital public service platforms among young people under 35, entrepreneurs and other citizens:

Young people demonstrate a high level of satisfaction with digital platforms of public services (3.88 points), but lower than the overall assessment of citizens and entrepreneurs. Most rate the usability of the platforms at 4-5 points out of 5. They are more likely to use smartphones and mobile banking to access services and make payments. Young people are less likely to encounter problems when using platforms and are more likely to be able to solve their own issues online. They appreciate the potential of digital platforms, especially in terms of saving time and money. Many express interest in further developing digital skills and adopting innovative technologies, including Artificial Intelligence.

Middle-aged citizens: demonstrate more diverse satisfaction scores. Although many also give high scores (4-5), there are also lower scores. They more often face difficulties in using the platforms and often resort to the help of relatives or specialists. Some respondents in this group note the need to improve the interface and accessibility of platforms for people with disabilities. Many express the need for training in digital skills.

Analysis of the answers that agreed with the statements about digital public services (The average score for all statements is 3.85 out of 5) indicates a generally positive attitude of respondents to digital public services. The most highly rated are: convenience and quality of public services (4.11), Security (4.06) Time saving (4.0). These indicators show that respondents highly value the convenience, quality and security of digital public services, and note significant time savings when using them. The least highly rated aspects are: Improvement of the quality of services (3.49), speed of processing appeals (3.7), protection of rights (3.77). These indicators indicate that respondents see potential for improvement in the areas of overall quality of services, speed of processing appeals, and protection of citizens' rights. Economic aspects: saving money (3.92) is rated above average, but not as high as saving time (4.0). This may indicate that respondents value the time benefits of digital public services more than the financial ones. Participation in discussions with authorities (3.78) is rated relatively low compared to other aspects. This may indicate the need for better feedback and interaction mechanisms between citizens and public authorities through digital platforms. Thus, Respondents are generally positive about digital public services, especially their convenience, quality and security. There is a need to improve the quality of services, the speed of processing appeals and mechanisms to protect the rights of citizens. Saving time is a more significant advantage for users than saving money. There is a need to strengthen opportunities for citizens to participate in discussions with the authorities through digital platforms. To improve overall satisfaction with digital public services, focus should be placed on improving the least rated aspects, while maintaining a high level in the areas that received the highest ratings.

General Trends:

1. the majority of respondents in all groups note that digital platforms save time and simplify the receipt of public services.

2. The problem of periodic technical failures and the need to improve the stability of platforms is often mentioned.

3 Many respondents, especially older respondents, indicate the need for training on the use of digital platforms.

4. there is a need to expand the functionality of the platforms and improve their integration with various government systems.

5. Information security and personal data protection issues are of concern to all user groups.

In general, there is a positive attitude towards the digitalization of public services, but there is also a clear need to further improve platforms and increase the digital literacy of the population.

Conclusions from the analysis of the survey data

Digital public services in Kyrgyzstan are in high demand and positively evaluated by the majority of users. The average satisfaction score is 4.24 out of 5 for citizens and 4.13 for entrepreneurs.

There is significant potential for further development and optimization of digital platforms, especially in aspects of speed of operation and integration with traditional workflow processes.

Young people are the most active and adapted group of users of digital public services, which creates the basis for further development of e-government.

Entrepreneurs, despite encountering problems more frequently, show a high level of utilization of digital platforms, indicating the imperative and importance of these services for the business community.

Gender differences in the use of digital public services are not critical, but require attention in developing communication strategies and improving interfaces.

The problem of duplication of digital documents with paper versions remains relevant and requires a systemic solution at the level of government processes.

The high assessment of the language accessibility of content indicates the successful localization of digital platforms, which is important for the multinational society of Kyrgyzstan.

Special attention needs to be paid to making digital platforms more accessible to people with disabilities, as scores in this area are below average.

VI. General conclusions and recommendations

Conclusions

Based on the results of the baseline study to assess the quality, efficiency and accessibility of existing digital platforms for public service delivery in the Kyrgyz Republic, the following key findings can be systematized:

1. **Level of digitalization of public services:**

- Significant progress in the development of digital platforms is evident;
- Implementation of key systems (e-services portal and mobile application "Tunduk", ESIA);

- High utilization rates (11 million services in 9 months of 2024, 1.72 million users);
- The persistence of the digital divide, especially in rural areas;

2. User Satisfaction:

- Positive ratings of convenience and quality (mean score of 4.11 out of 5);
- Highly regarded for saving time and money;
- The benefits of 24/7 access and no need for in-person visits;
- Need to improve the speed of the platforms (score 3.55 out of 5);
- Need to expand functionality.

3. Challenges and barriers:

- Lack of awareness of available services;
- Low levels of digital literacy, especially among the older generation;
- Technical failures of platforms;
- Difficulty navigating and filling out forms;
- Personal data security issues;
- Duplication of electronic documents with paper documents (56.8% of respondents).

4. Differences between user groups:

- Higher level of youth adaptation (68.5% solved the question online);
- Frequent problems with entrepreneurs (50.6% resolved issues online);
- Gender differences in seeking help for digital public services (32.4% of female entrepreneurs vs 18% of men).

5. Access to information and interaction with public bodies:

- Significant opportunities to access information;
- Implementation of electronic document management and identification systems;
- Limited involvement of youth in decision-making;
- Lack of clear mechanisms to take into account the views of young people;
- Low level of active youth participation.

6. Limitations in youth engagement:

- Limited influence on actual decision-making processes;
- Lack of adaptation of platforms to the needs of young people;
- Lack of effective feedback;
- Insufficient promotion of participation opportunities among young people.

Overall, while there has been significant progress in the digitalization of public services, there are challenges with accessibility, usability and engagement of different groups, especially youth, in decision-making processes through digital platforms.

RECOMMENDATIONS FROM RESEARCH PARTICIPANTS TO THE PROJECT ON COMMUNICATION STRATEGIES

1. information campaigns to raise public awareness of available digital services.

Conducting large-scale information campaigns on national and local TV and radio and social media traditional media (TV, radio, print media) and social networks, messengers.

Campaigns should include:

- Commercials, tickers and publications with simple and clear explanations of the benefits of using the platforms
- Success stories and positive experiences of citizens already using digital services

- Instructions on how to register and use the platforms
- Information on security measures and protection of personal data

2. Direct interaction with the population

Organize face-to-face meetings, seminars and consultations with citizens to explain the possibilities of digital platforms and help them master them. Special attention should be paid to working with elderly people, residents of remote villages and groups with additional needs who have difficulties with digital technologies.

Events may be held at the base:

- Aiyl okmotu and other local self-government bodies
- School, district and city libraries, houses of culture, schools, colleges, universities
- Post offices and banks
- Public Internet access centers
- Youth centers
- COUNTs

3. Partnership with opinion leaders and NGOs

Involvement of authoritative opinion leaders, activists and representatives of NGOs that enjoy the trust of the population in information work. They can act as "digital ambassadors", explaining the benefits of electronic public services and helping citizens to master new tools. Cooperation with:

- Religious leaders and organizations
- Councils of aksakals, pensioners and veterans, women's councils
- Youth associations and student unions
- Business associations
- NPOs and volunteer organizations

Educational programs

1. Digital literacy courses for the population

Developing and conducting special training courses for different categories of citizens on the use of digital platforms of public services. Programs should be tailored to the needs of specific groups:

- Basic computer and internet skills for beginners
- Step-by-step instructions on how to sign up and use the platforms, download mobile apps for scanning, online banking, and more.
- Case studies and scenarios for receiving services
- Recommendations on security and protection of personal data

Courses can be conducted both in person at schools, libraries, NGOs, universities and colleges, etc. as close to the home of the trainees as possible, according to the wishes of the respondents, and online using educational platforms and social networks to learn at their own pace and mode.

2. training of municipal and state employees

Organization of specialized professional development programs for government officials responsible for the implementation and promotion of digital public services. Training should include:

- In-depth study of platform functionality and features;
- Processing and analyzing data for forecasting;

- Written communication protocol (How to correspond online).
- How to blog on social media.
- Practicing skills in counseling citizens and helping them solve problems;
- Study of best practices and exchange of experience between agencies;
- Recommendations to optimize processes and improve service quality;

3. training preschool, school and vocational teachers, school and public librarians.

- In-depth study of the functionality of MES platforms and their capabilities;
- Processing and analyzing data for forecasting;
- Written communication protocol (How to correspond online).
- How to blog on social media.
- Skills in digital public services in the education sector
- Digital methods for collecting and analyzing data, building communications with parents and students.
- Digital hygiene and safety.

Training programs can be implemented on the basis of the Academy of Public Administration, RIPKiPK, regional universities, spouses, as well as in the format of webinars and online courses to learn at their own pace and mode.

4. integrating digital competencies into the education system

Inclusion of topics related to digital public services and skills for working with electronic platforms, digital hygiene and security in the educational programs of schools, colleges and universities. This will ensure that the younger generation is prepared for life in the digital economy. Key areas:

- Development of curricula, textbooks, teaching and learning materials (texts, tests, essay topics, parent-teacher conferences, etc.) with integration of simulators for practicing skills.
- Lessons of reading, literature, Kyrgyz and Russian language, informatics in schools
- Specialized training courses and modules in colleges and universities
- Electives, clubs and project activities of students
- Contests and Olympiads for schoolchildren, students, young teachers (For example: Essay contest: how I received my passport, contest for the best instruction on how to work on the platforms, contest for the best video on how to receive this or that digital public service, etc., contests for the best scripts for parent-teacher meetings on teaching how to use the electronic diary, online libraries and MES resources for children and parents.

Implementation of the proposed communication strategies and educational programs will increase digital literacy of the population, create a positive attitude towards electronic public services and ensure effective use of digital platforms by citizens and organizations. This will contribute to the further development of e-government in Kyrgyzstan and improve the quality of interaction between the state and society.

RECOMMENDATIONS TO PUBLIC BODIES

Increased transparency and information

It is recommended that public authorities strengthen their efforts to inform citizens about available digital services and their benefits. It is necessary to regularly publish reports on the work of digital platforms, including usage

statistics and development plans. It is important to ensure transparency of personal data processing processes, given that security is rated by users at 4.06 out of 5 points.

Improved stability and quality of platforms

Given the low score for speed and page loading (3.55 points), it is necessary to carry out a comprehensive optimization of digital platforms. It is recommended to implement a performance monitoring system and conduct regular load testing. It is important to ensure uninterrupted operation of services and prompt elimination of technical failures.

Expanding the range of available online services

State bodies should continue to work on digitizing as many services as possible. Particular attention should be paid to the services that citizens consider most in demand. It is necessary to simplify the procedures for obtaining digital certificates and ensure their recognition by all instances in order to solve the problem of duplication of documents, which is faced by 56.8% of users.

Development of services for business

Given that only 50.6% of entrepreneurs were able to fully solve their issues online, it is necessary to develop specialized services for business. It is recommended to create a single portal for entrepreneurs, uniting all necessary services and information. It is important to ensure integration with popular electronic document management and accounting systems. The implementation of these recommendations will help to improve the efficiency of digital public services, increase user satisfaction and contribute to further digital transformation of public administration in Kyrgyzstan.

Recommendations for IT departments of public bodies based on the results of heuristic analysis of 10 platforms :[15]

Technical optimization

Systems Performance:

- Implement text content compression (identified opportunity to save up to 582 KiB)
- Optimize JavaScript and CSS through code minification
- Implement efficient caching of static resources

Interface standardization:

- Create a unified design system for all state portals
- Unify navigation elements and site structure
- Standardize reference names and headings

Improving user experience

Navigation and Search:

- Implement a "live search" system with hints;
- Add breadcrumbs to improve navigation;
- Provide relevant sorting of search results;

Error Handling:

- Implement informative error messages with specific instructions;

[15] See Annex 2

- Implement an error logging system;
- Establish a mechanism for prompt feedback when problems arise;

Content and actualization

Information Management:

- Implement a system for regular auditing and updating of content;
- Simplify professional terminology;
- Create a glossary of terms and a FAQ section;

User Training:

- Develop context hints for complex functions
- Create video tutorials on how to use the services
- Introduce a system of first use prompts

CONCLUSION

The project "Youth Empowerment for Digital Governance", implemented by DVV International and the PF IYD with the support of the EU and BMZ, is a timely and important initiative that meets the actual needs of the development of digital society in Kyrgyzstan.

The project fits seamlessly into the country's overall digital transformation strategy and addresses key challenges in developing young people's digital skills and increasing their participation in democratic governance processes. It is particularly important that the project focuses on rural youth, who are often disadvantaged in terms of access to and use of digital technologies.

The creation and testing of e-governance platforms under the project will contribute to increasing the transparency and efficiency of local self-governance, as well as expand opportunities for youth participation in decision-making at the local level. This is in line with global trends in the development of e-democracy and digital civic participation.

Strengthening the capacity of local authorities to work with youth and use digital tools is also an important component of the project, which will create a sustainable basis for further development of digital governance in the regions of Kyrgyzstan.

The implementation of this project can make a significant contribution to bridging the digital divide between urban and rural areas, increasing digital literacy among young people and forming a new generation of active and competent citizens able to effectively participate in governance processes using modern technologies.

Overall, the project "Youth Empowerment for Digital Governance" has a high potential to achieve long-term positive changes in digitalization and democratization of local governance in Kyrgyzstan, which will contribute to the sustainable development of digitalization of the country.

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VIII. LIST OF APPENDICES

REPORT ON THE RESULTS OF HEURISTIC EVALUATION AND USABILITY TESTING OF STATE WEBSITES OF THE KYRGYZ REPUBLIC

Annex

REPORT ON THE RESULTS OF HEURISTIC EVALUATION AND USABILITY TESTING OF STATE WEBSITES OF THE KYRGYZ REPUBLIC

Executors: Sh.D. Zhunushev, Director of "Balbal Digital" Ltd.
Bekbosunova G., Ismailova E.U.

Introduction

This report presents the results of a heuristic evaluation and usability testing of government websites of the Kyrgyz Republic conducted to analyze their usability and compliance with modern standards of digital government in September - October 2024.

Heuristic evaluation is one of the most effective methods of expert analysis of user interfaces, based on checking whether the interface conforms to established usability principles (heuristics). This method allows identifying major problems in the design and functionality of websites before more costly user testing.

Usability testing is a method of evaluating *the usability* of a product, in which real users perform typical tasks under controlled conditions, and researchers observe their actions and record the results. This approach allows you to identify interface problems early in the development process and make informed decisions to improve the product based on real user behavior rather than on assumptions.

Research Objectives:

- Identify the main usability problems of government websites
- Assess accessibility of information and services for citizens
- Make recommendations to improve the user experience
- Contribute to improving the efficiency of e-government

Methodology:

In the heuristic evaluation, the experts analyzed the websites on the following key parameters:
- Navigation and information architecture
- Accessibility for different user groups
- Relevance and completeness of information
- Functionality and performance

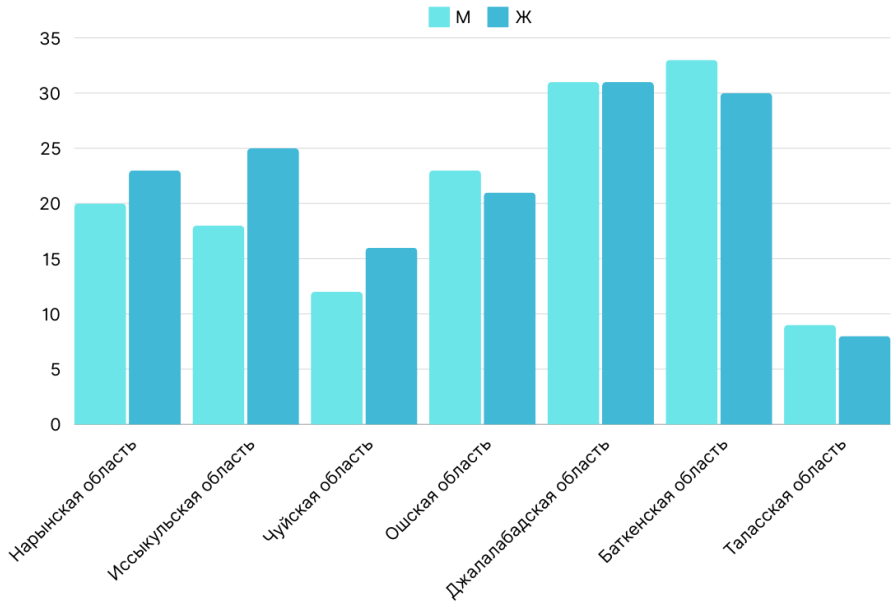
Each aspect was evaluated against an established scale of criteria, providing a comprehensive picture of the current state of government web resources.

During usability testing, the following parameters were evaluated:
- Efficiency of task performance by users
- Number and nature of errors made

- Time to perform typical operations
- Satisfaction with the user interface

As a result of testing, key interface problems were identified and priority areas for improvement were determined. The data obtained made it possible to form an objective assessment of the product usability and develop recommendations to improve its efficiency.

About the participants:

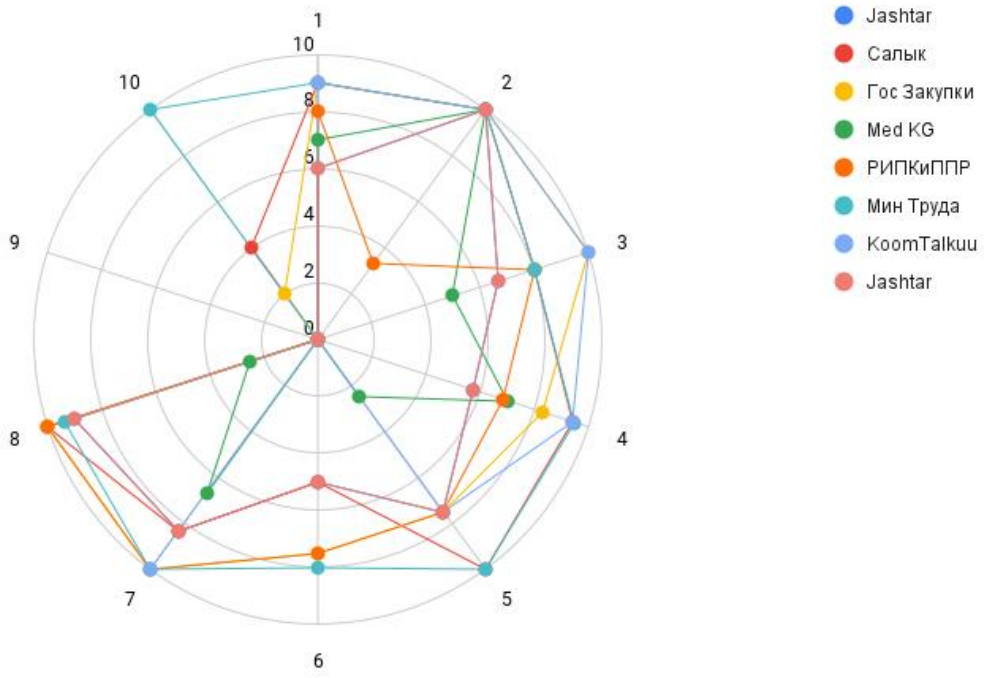


People from all regions of Kyrgyzstan were involved in usability testing. Also, 10 independent IT and UX\UI experts participated in usability testing

Total number of heuristic evaluation experts: 4 UX\UI designers
Total number of usability testing participants: 30-40 people
Total number of experts: 5 IT specialists

Heuristic evaluation: results and recommendations to address the problems identified

Based on our analysis of 10 sites, we identified the main recurring issues and made general recommendations:



1. Problems with link names and titles

Current problem:

Link titles do not match page content/headings, which is disorienting for users.

(Encountered by TUNDUK, Salyk, State Procurement, RIPK)

Recommendations:

- Conduct a full compliance audit of all links and headings
- Use clear and informative headline and subheading wording
- Create uniform naming rules (e.g., start with an action verb ("Apply", "Get a certificate", "Pay tax")
- Add breadcrumbs to improve navigation on required pages

2. lack of live search and search hints

Current problem:

The sites do not have instant search functionality or auxiliary search tools.

(Salyk, MED.KG, RIPK, Min Labor, Jashtar)

Recommendations:

- Implement a search box with instant update results (AJAX (Asynchronous JavaScript and XML) is a technology that allows the content of a web page to be updated without completely reloading the page).)
- Add filters and categories to refine your search
- Ensure relevant sorting of results
- Add a results loading indicator

3. Navigation problems

Current problem:

Inefficient navigation structure and difficulty navigating the site.
(*Occurs at TUNDUK, MED.KG, RIPK, Jashtar)*

Recommendations:
- Create a clear hierarchical structure for the site
- Place the navigation at the top of the page
- Implement "breadcrumbs"
- Ensure a consistent navigation style
- Highlight active sections

4. lack of interactivity and feedback
Current problem:
Interactive elements do not have visual feedback and states.
(Salyk, MED.KG, RIPK, Jashtar)

Recommendations:
- Add hover effects for all interactive elements
- Realize active and visited states
- Introduce smooth animations during interaction
- Standardize the style of all clickable elements
- Ensure sufficient indentation between elements
- Use a unified visual feedback system

5. Problems with user training
Current problem:
Lack of tutorial elements and hints for users.
(Meets with State Procurement, Ministry of Labor, Jashtar)

Recommendations:
- Create a "Did you know?" section
- Implement contextual cues
- Add tooltips for complex functions
- Create FAQ section
- Implement a system of first use prompts

6. Inconsistency of design and typography
Current problem:
Lack of a unified style of buttons, fonts and visual elements.
(Occurs at MED.KG, RIPK, Jashtar)

Recommendations:
- Create a unified design system
- Use no more than 2-3 font families
- Standardize button sizes and styles
- Provide a clear visual hierarchy

- Implement a consistent color scheme
- Create design guidelines

7. Problems with content structure

Current problem:

Suboptimal formatting and organization of content.

(Encounters with State Procurement, Ministry of Labor, MED.KG)

Recommendations:

- Optimize the length of paragraphs and headings
- Implement a clear hierarchy of headings
- Use lists to structure information
- Add subheadings to break up the text
- Ensure optimal indentation
- Use visual elements to break up content

8. Performance problems

Current problem:

Slow loading and unoptimized performance of websites.

(Encounters with the Applicant and Kattar)

Recommendations:

- Optimize images
- Minimize CSS and JavaScript
- Use caching
- Implement lazy loading
- Optimize database queries
- Use CDN
- Implement GZIP compression

9. Problems with content relevance

Current problem:

Outdated information and lack of regular updates.

(Occurs at Jashtar and other sites)

Recommendations:

- Implement a system of regular content auditing
- Add dates of publication of materials
- Create an update schedule
- Appoint those responsible for updating

10. Problems with error handling

Current problem:

Uninformative error messages and no help when errors occur.

(Occurs at TUNDUK and other sites)

Recommendations:
- Show detailed error messages
- Provide specific instructions to address
- Add support contacts
- Implement custom 404 pages
- Implement an error logging system
- Suggest alternative actions when mistakes are made

Usability testing: results and recommendations on eliminating the identified problems based on the results

Tunduk

Hypothesis 1: Users cannot recover a forgotten password on their own.
Test results: The participant was able to recover the password in 2-5 minutes.
The hypothesis is not confirmed

Hypothesis 2: Registration in the application takes less than 5 minutes if the interface is simplified and the number of required fields is minimized.
Test results: Users were registered in 2-5 minutes, which indicates that the interface is understandable.
Hypothesis confirmed

Hypothesis 3: The intuitive interface of the Tunduk app allows users to quickly get the documents and help they need.
Test Results: Participants were unable to successfully complete all tasks.
The hypothesis is not confirmed

It is recommended to improve the navigation of the Tunduk application so that users can find the documents and help they need more quickly. It is also worth adding tooltips or short instructions to help users successfully complete tasks.

Salyk

Hypothesis 1: Users can find and file tax returns online if the instructions for completion are accessible and understandable.
Test results: Participants could not find the desired section. This indicates poor visibility of the functionality.
The hypothesis is not confirmed

Hypothesis 2: Understanding the terms makes it easier to file tax returns.
Test results: Participants reported difficulty with confusing terms.
Hypothesis confirmed

It is recommended to make the section for filing tax returns more visible on the Salyk website by adding brightly colored buttons and clear signposts. It is also worth simplifying the language by explaining terms so that users can more easily submit tax reports

Med.kg

Hypothesis 1: Making a medical appointment via an online form will be successful for 80% of users if the form is intuitive.

Test Results: Participants did not complete the recording, indicating confusion in the process.

The hypothesis is not confirmed

Hypothesis 2: Users of the med.kg website experience difficulties when searching for information about medical services.

Test results: Participants were unable to find the information they were looking for.

Hypothesis confirmed

It is recommended to simplify the online appointment form on Med.kg so that users can easily complete the process. It is also worth improving the structure of information about medical services, making it more accessible and understandable for users.

Kattar.kg

Hypothesis 1: Users will be able to find information about the composition of a community council in 3 clicks if it is placed in an explicit location.

Test results: Participants could not find the required data and pointed to the emptiness of the site.

The hypothesis is not confirmed

Hypothesis 2: Users have difficulty using interactive elements of the website.

Test results: Users were unable to find the submission and announcement sections.

Hypothesis confirmed

It is recommended to place information on the composition of the Public Council in a prominent place on the Kattar.kg website so that users can easily find it. It is also worth improving the navigation of interactive elements so that users can easily find the sections of submissions and announcements.

Public Procurement (Website)

Hypothesis: Users will be able to easily find the section with tenders, apply and download the necessary documentation.

Test results: Some users reported that they were unable to apply because they could not find the features they wanted.

The hypothesis is not confirmed

It is recommended to improve the visibility of the tenders section of the Gos Procurement website by adding bright buttons and clear signposts. It is also worth simplifying the bidding process and making the necessary functions more accessible to users.

2020.edu.gov.kg

Hypothesis: Users will be able to find information about programs and successfully apply for an educational program.

Test results: The application function was either missing or required overly complicated steps, including the entry of unclear data.

The hypothesis is not confirmed

It is recommended to simplify the application process at 2020.edu.gov.kg so that users can easily and quickly complete the application.

Koomtalkuu.gov.kg

Hypothesis 1: Users will be able to easily find information about finding information about community board activities.
Test results: Users could not find information about election results and registered candidates - there are too many parameters, no sorting, and the news is all over the place.
The hypothesis is not confirmed

Hypothesis 2: Users have difficulty in submitting appeals.
Test results: Participants find it difficult to find sections.
Hypothesis confirmed

It is recommended to improve the structure and organization of information on the Koomtalkuu.gov.kg website so that users can easily find data on the activities of the Public Council, including election results and registered candidates. It is also worth simplifying the navigation for submitting appeals so that users can easily find the necessary sections.

Jashtar.gov.kg

Hypothesis: Users will be able to easily find information about youth support programs, register for participation, and apply online.
Test results: Registration on the site was impossible because the registration function was missing. Users could not find an opportunity to register to submit applications.
The hypothesis is not confirmed

It is recommended to add a registration function on the Jashtar.gov.kg website so that users can easily register for youth support programs. It is also worth making information on application submission more accessible and understandable so that users can easily find it.

Ec.ripk.kg

Hypothesis: Users will be able to easily find information about available professional development courses, register for courses, and receive confirmation of enrollment.
Test Results:
1. Users were unable to find information about available professional development courses. The website did not provide the necessary information and the search was inconvenient.
2. There was no registration function, making it impossible to apply for the course.

The hypothesis is not confirmed

It is recommended to place information about available professional development courses on the ec.ripk.kg website so that users can easily find it. It is also necessary to add a registration function so that users can apply for participation in the courses.

Mlsp.gov.kg

Hypothesis 1: Users will be able to easily find information about social services and benefits.

Test Results:

1. Users could not find information on types of social benefits. The website did not provide the necessary information and the search was inconvenient.
2. In addition, users could not find information about new social programs and the latest news regarding changes in legislation on social benefits.

The hypothesis is not confirmed

Hypothesis 2: Users have difficulty with the online application process.

Test results: The registration function for applying for social assistance was missing, which made it impossible to perform this task.

Hypothesis confirmed

It is recommended to improve the structure of information on social services and benefits on the mlsp.gov.kg website so that users can easily find data on types of benefits and new social programs. It is also necessary to add a registration function for online application for social assistance so that users can successfully complete the process.

Recommendations of IT specialists

Analysis of state portals of the Kyrgyz Republic

Five leading IT specialists peer-reviewed 10 key government portals, including Tunduk (e-government services), Salyk (tax service), Med KG (healthcare), as well as portals for youth (Jashtar), senior citizens (Kattar) and university applicants.

Experts noted the progressive development of e-government and the drive towards digitalization of public services. It is particularly important that the portals cover various social groups and provide a wide range of services, from filing tax reports to making doctor's appointments.

The experts made valuable suggestions for improvement:

- "Add a section to compare universities, make registration easier" - for the Abiturient portal
- "State structures to give links to the necessary reference in tunduk" - a practical solution to simplify the search for documents
- "Build the user path" and "structure sites" - to create an intuitive navigation experience

It is noteworthy that most of the identified problems have technical solutions and can be eliminated in the short term, which will significantly improve the quality of digital public services for citizens.

Estimating the speed of the platforms

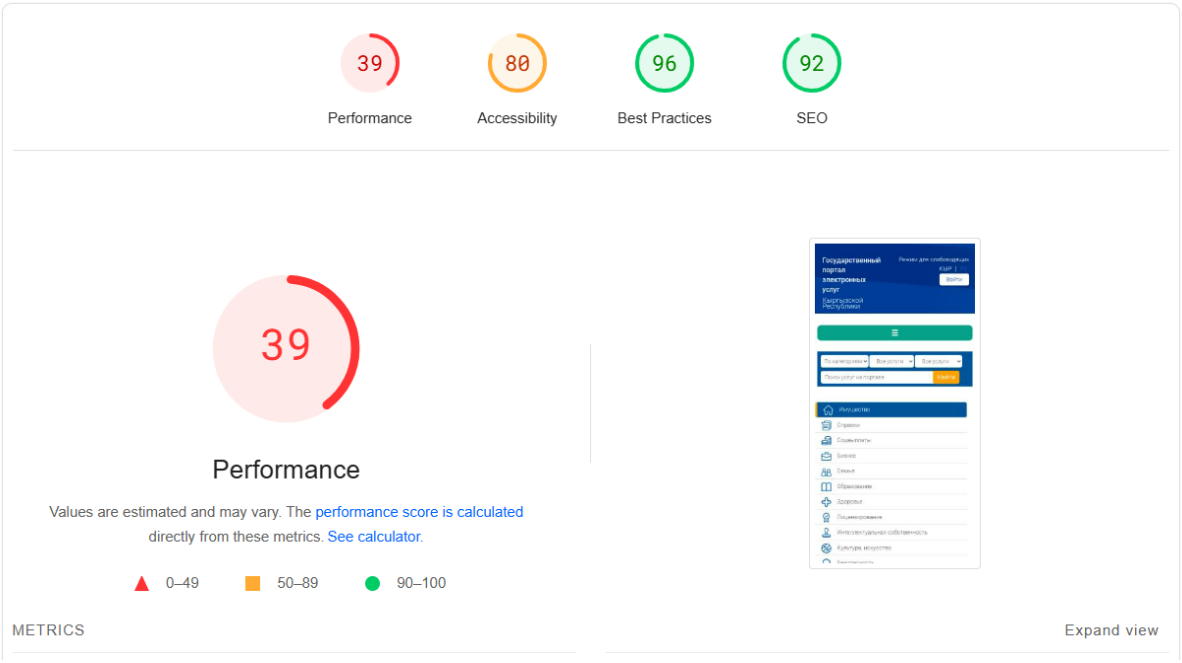
All site performance optimization recommendations were compiled based on analysis conducted using the Google PageSpeed Insights tool, available at https://pagespeed.web.dev/.

Tunduk

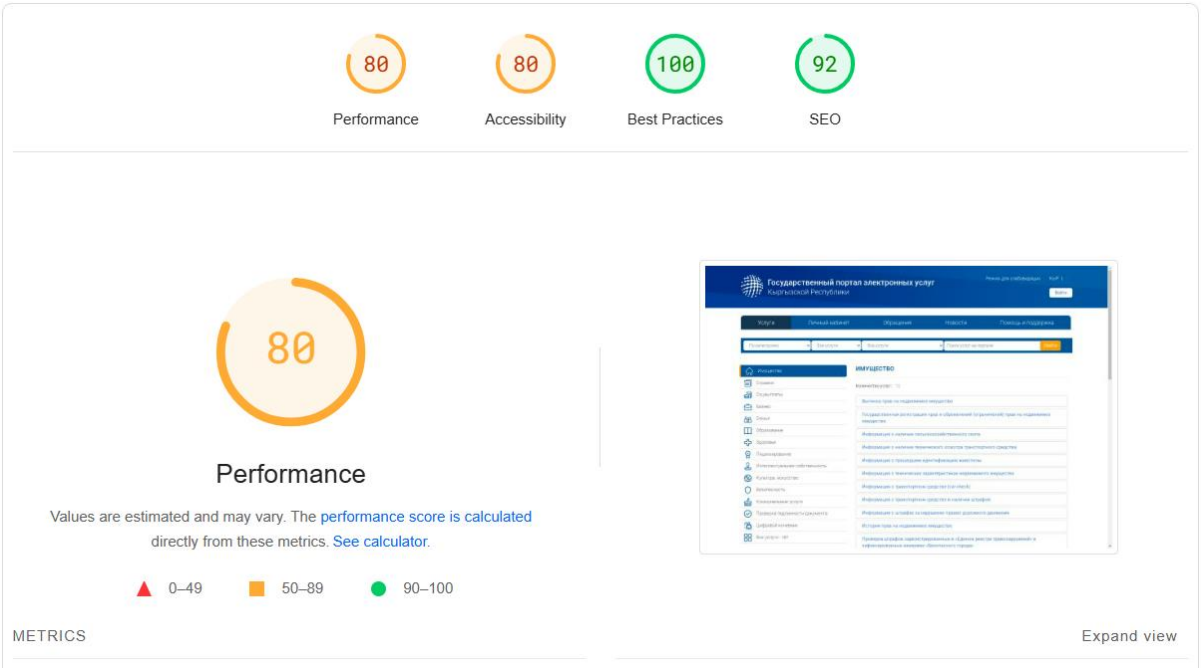
Portal.tunduk.kg	Performance	Accessibility	Best Practices	SEO
Mobile version	39	80	96	92

Desktop version	80	80	100	92

Mobile version



Desktop version



The site has several opportunities to improve speed and performance. Key recommendations include:

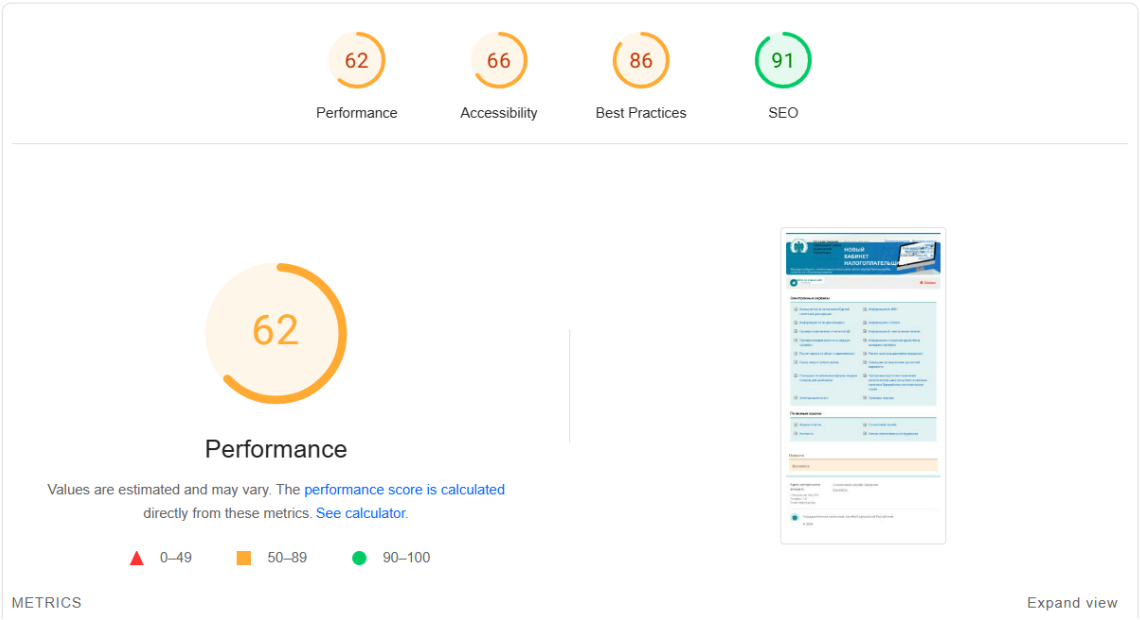
1. **Text compression** - saving up to 582 KiB.
2. **JavaScript and CSS optimization** - minifying and removing unnecessary code to save 177 KiB.
3. **Using modern image formats** - saving 407 KiB and speeding up downloads.

4. **Eliminate render-blocking resources** - reduce latency by 580ms.
5. **LCP image preloading** - will speed up the display of the main content.

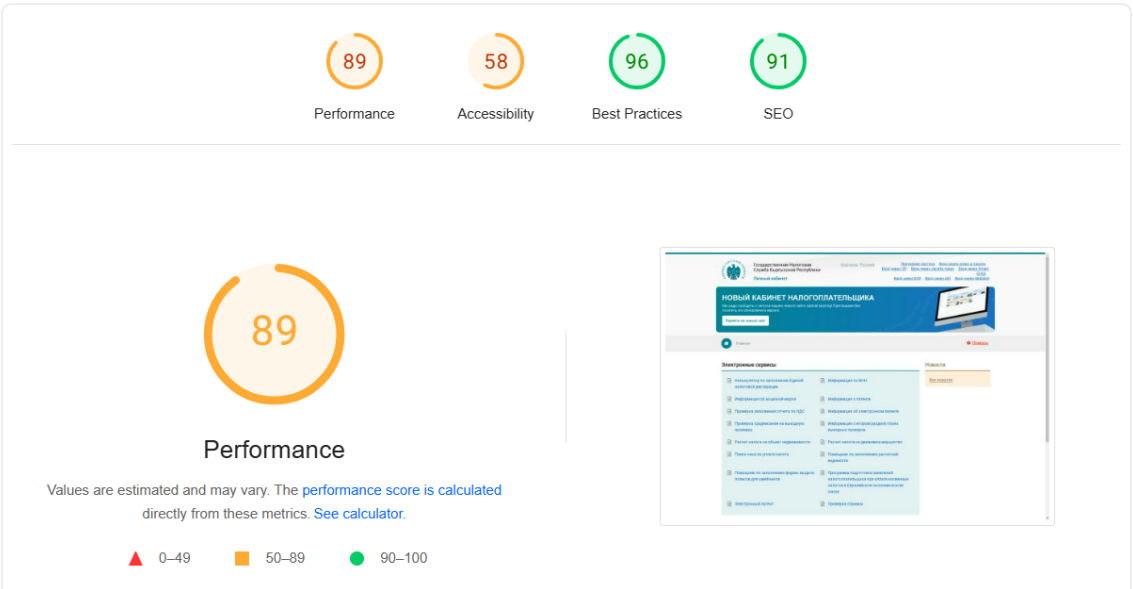
Salyk

Salyk.kg	Performance	Accessibility	Best Practices	SEO
Mobile version	62	66	86	91
Desktop version	89	58	96	91

Mobile version



Desktop version



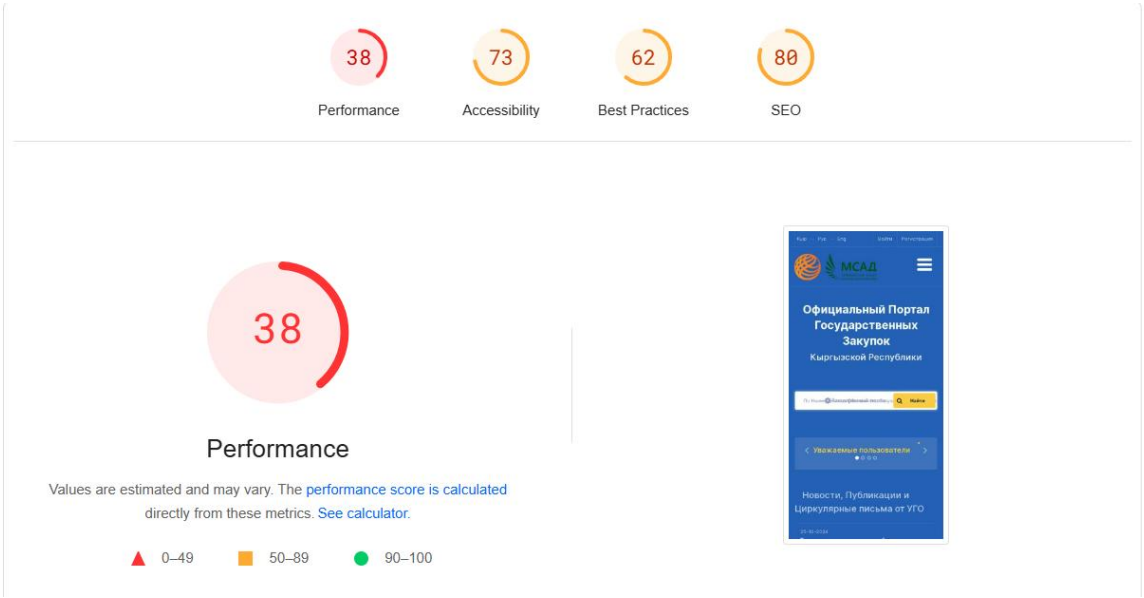
To improve site speed and performance, it is worth looking at the following points:

1. **LCP optimization** - image preloading to reduce time to 2,160 ms.
2. **Eliminate render-blocking resources** - saving up to 120ms.
3. **Minification of JavaScript and CSS** - removing 66 KiB worth of unnecessary code.
4. **Efficient caching** - policy improvement for 10 static resources.
5. **Image optimization** - saving 10 KiB through optimal encoding.

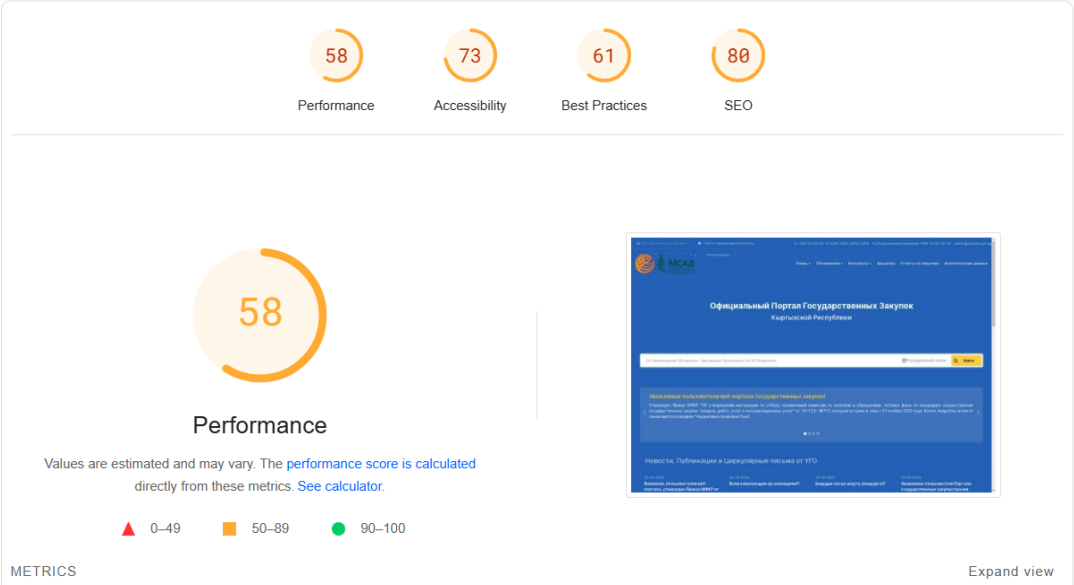
Public Procurement (Website)

Zakupki.gov.kg	Performance	Accessibility	Best Practices	SEO
Mobile version	38	73	62	80
Desktop version	58	73	61	80

Mobile version



Desktop version



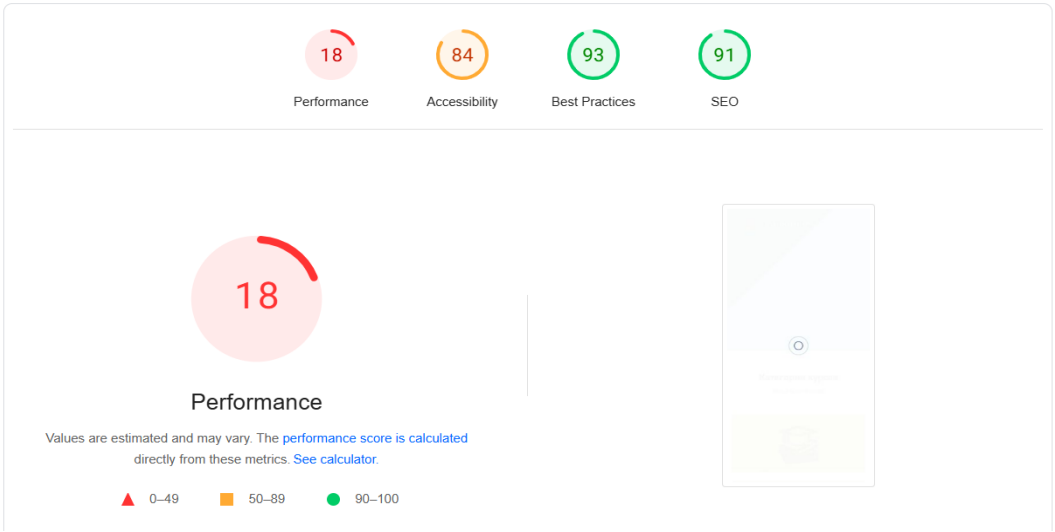
To optimize site performance, improve loading speed and reduce latency, the following recommendations can be implemented:

1. **Eliminate render-blocking resources** - will speed up loading by 2,750ms, improving display.
2. **Text compression** - will save 1,906 KiB and reduce the amount of data transferred.
3. **LCP optimization** - image preloading and elimination of blocking resources to reduce time to 4,060 ms.
4. **Reducing unused JavaScript and CSS** - saving 1,702 KiB, reducing page size.
5. **Efficient caching** - improving policies for 35 resources will speed up re-downloads.

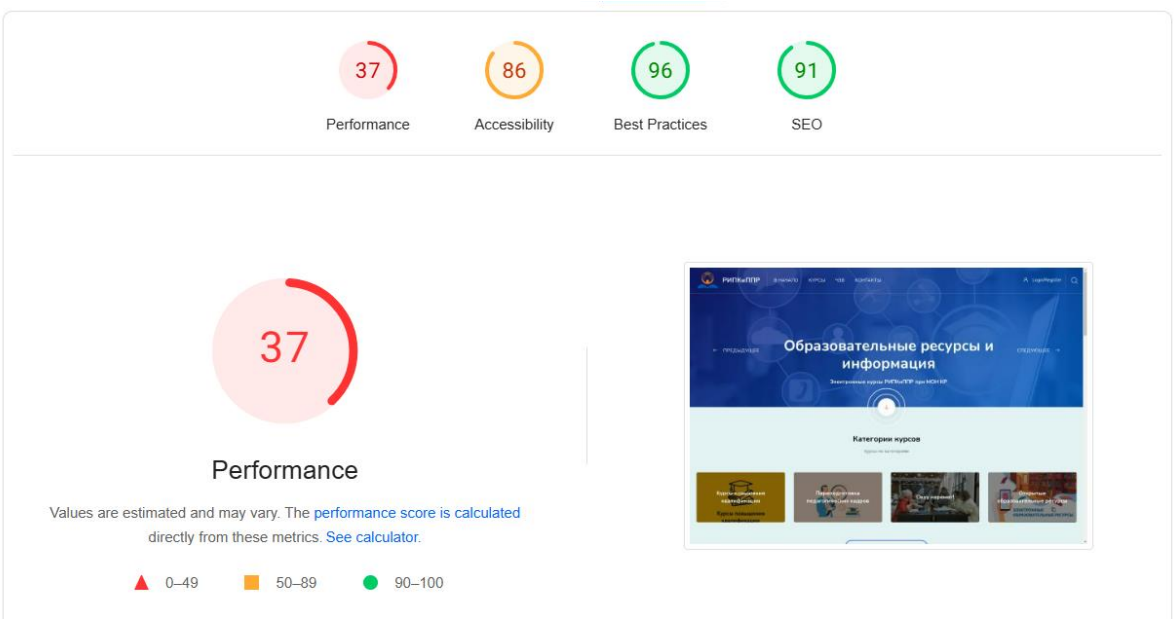
Ec.ripk.kg

ec.ripk.kg	Performance	Accessibility	Best Practices	SEO
Mobile version	18	84	93	91
Desktop version	37	86	96	91

Mobile version



Desktop version



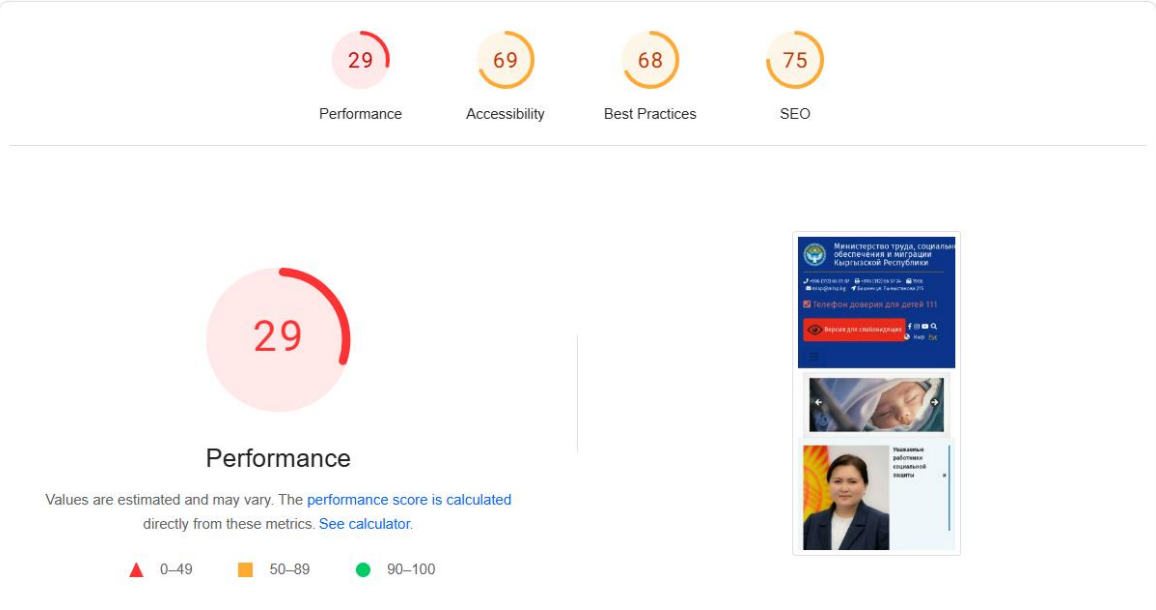
To significantly improve site speed and performance, it is recommended that you consider the following optimizations:

1. **LCP acceleration** - LCP image preloading and elimination of blocking resources will reduce the time to 12,980 ms.
2. **Image optimization** - moving to modern formats (7,236 KiB) and efficient encoding (3,858 KiB), as well as delayed off-screen image loading.
3. **Minimize CSS and JavaScript** - removing unused CSS (280 KiB) and JavaScript (1,152 KiB) will reduce page size.
4. **Efficient caching and compression** - caching 40 resources and compressing text by 37 KiB will reduce the load on repeat visits.
5. **Layout stability** - eliminating large layout shifts and properly adjusting image sizes (saving 450 KiB) will improve perception.

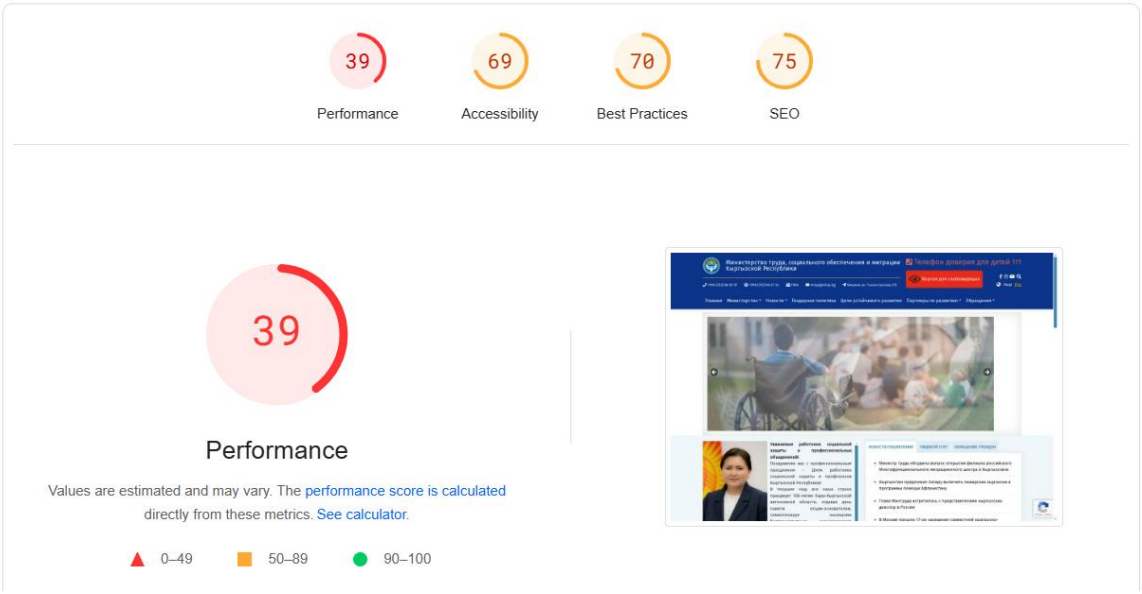
Mlsp.gov.kg

mlsp.gov.kg	Performance	Accessibility	Best Practices	SEO
Mobile version	29	69	68	75
Desktop version	39	69	70	75

Mobile version



Desktop version



The following steps can be applied to optimize the performance of the website:

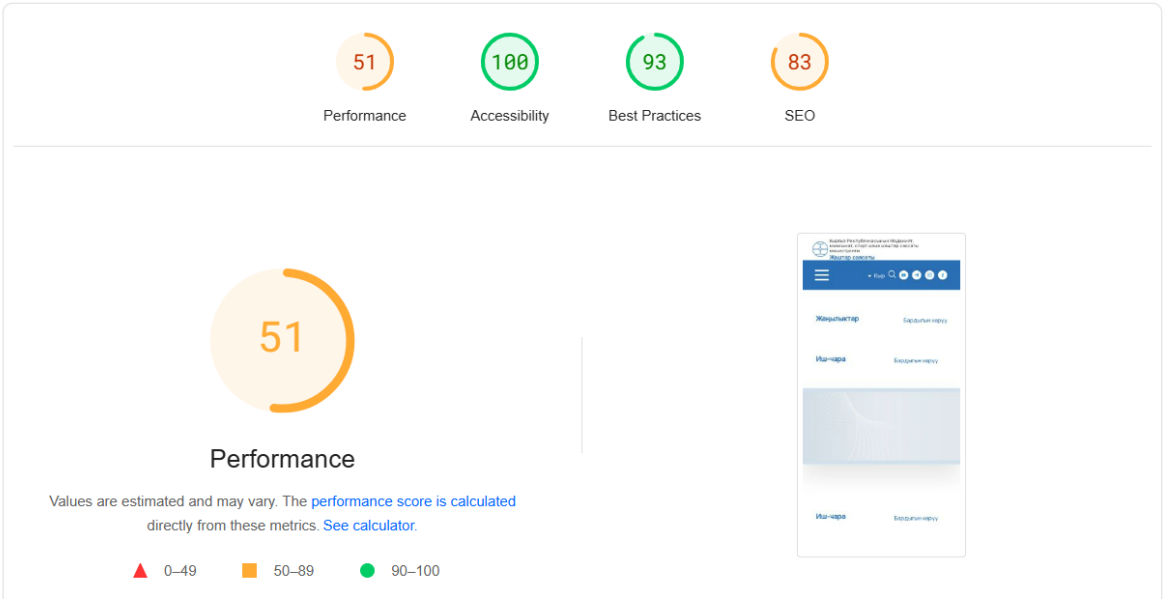
1. **Lazy Loading for third-party resources** - reducing the load on the main thread by 2,960 ms.
2. **JavaScript runtime reduction** - removing unused code and minification by 1,962 KiB.
3. **LCP acceleration** - preloading the image and eliminating blocking resources will reduce the time by 500ms.
4. **Minimize CSS** - removing unused CSS will reduce the size by 170 KiB.
5. **Efficient caching and compression** - Improved caching policy and text compression to reduce the transmitted volume.

Jashtar.gov.kg

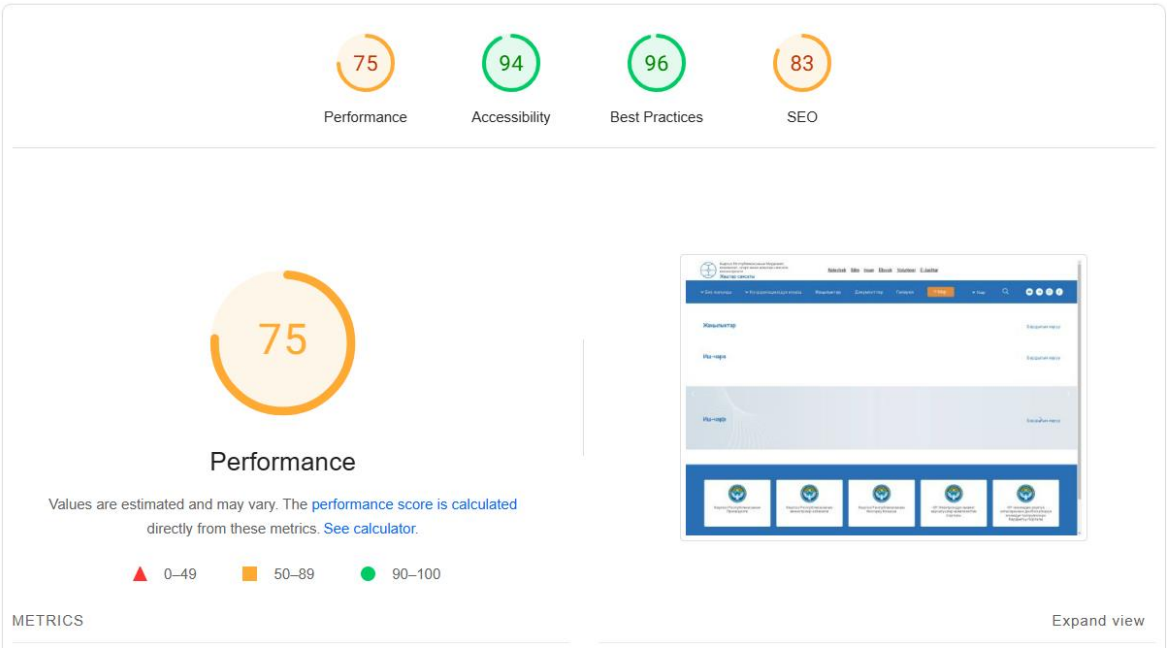
Jashtar.gov.kg	Performance	Accessibility	Best Practices	SEO

Mobile version	51	100	93	83
Desktop version	75	94	96	83

Mobile version



Desktop version



To optimize site speed and improve user experience, the following improvements can be implemented:

1. **Eliminate major layout shifts** - setting fixed sizes for images will prevent elements from moving unexpectedly.
2. **Largest Contentful Paint (LCP) acceleration** - eliminating render-blocking resources will save up to 510ms.

3. **CSS and JavaScript optimization** - removing unused code will save 11 KiB and 116 KiB, reducing the load on the main thread.
4. **Image optimization** - using modern image formats will save up to 15 KiB and prevent layout shifts.
5. **Reduce the number of critical request chains** - reducing 6 request chains will reduce latency, especially on slow links.

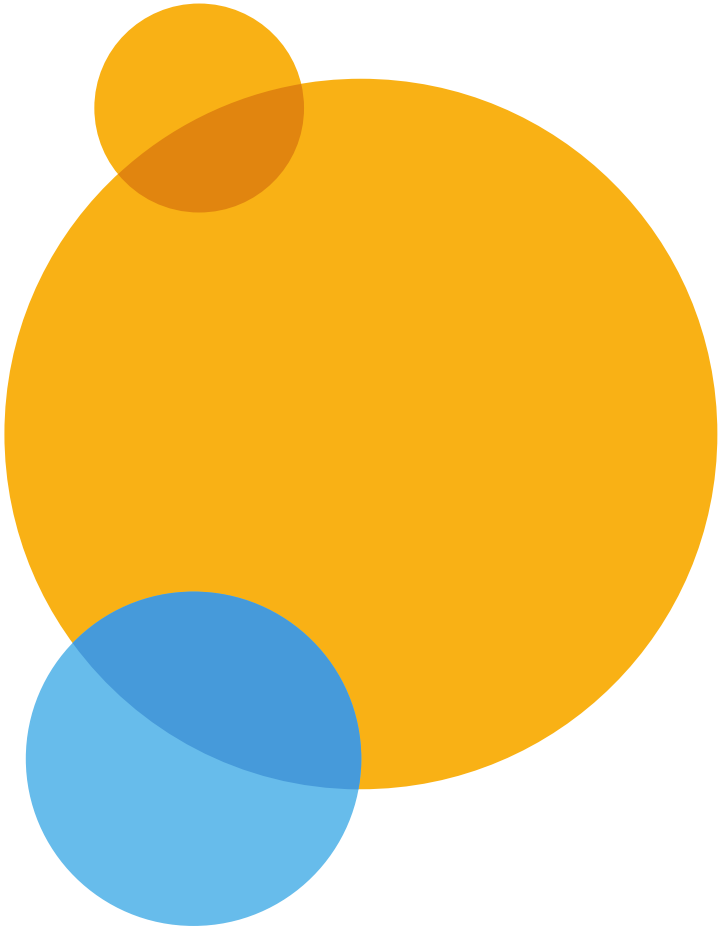
Conclusion

According to the results of heuristic evaluation and usability testing of government websites of the Kyrgyz Republic, there is progress in the development of electronic public services. There are positive changes in the availability of services and introduction of modern technologies.

However, a number of significant problems have been identified in the areas of navigation, information retrieval and site functionality. Users find it difficult to perform basic tasks due to the lack of key features, unintuitive interfaces and complex terminology. Performance and content relevance are of particular concern.

To improve the situation, it is necessary to introduce a unified design system, optimize the technical component and simplify the user experience. It is important to develop common standards for all state portals and ensure regular content updates. It is recommended to take a systematic approach to modernizing websites, paying special attention to the needs of users.

Implementation of these measures will significantly increase the efficiency of citizens' interaction with electronic public services and simplify access to necessary information.



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