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DEVELOPING A UNIFIED DIGITAL PLATFORM FOR THE NATIONAL QUALIFICATIONS SYSTEM: TECHNICAL MODEL AND FUNCTIONAL CAPABILITIES

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Abstract
This article analyzes the conceptual model, functional structure, and institutional significance of the information system of the unified digital platform of the National Qualifications System, developed on the initiative of the Institute for the Development of the National Qualifications System. The study aims to strengthen the link between the labor market and the education system through digitalization, regulate qualification requirements, and improve the efficiency of assessment processes. The article covers the development and registration of occupational standards and sectoral qualification frameworks, accreditation and monitoring of assessment centers, as well as digital exams, appeals, and QR-coded certificates. It also examines opportunities for creating online resumes, organizing distance learning and testing, and accessing regulatory documents in real time. The results show that the system reduces paperwork, saves time, and increases management efficiency. In conclusion, the platform plays an important role in strengthening the National Qualifications System and supporting human capital development.

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Introduction

In the Republic of Uzbekistan, ensuring the development of human capital, strengthening the institutional coherence between the labor market and the education system, and recognizing occupational qualifications based on international requirements are considered one of the urgent tasks. From this perspective, the development and implementation of the information system "Unified Digital Platform of the National Qualifications System" is emerging as a strategic direction for the comprehensive modernization of the national qualifications infrastructure. This information system is being developed in accordance with the Resolution of the President of the Republic of Uzbekistan No. PQ-345 dated September 30, 2024, "On measures to further improve the National Qualifications System of the Republic of Uzbekistan," and envisages the formation of a unified digital ecosystem in the field of national qualifications. In the creation and implementation of the information system, organizational-legal, technical, and methodological foundations have been defined based on the principles of openness, transparency, centralized management, flexibility, continuity, information security, and user orientation. Within the framework of the information system, national and sectoral qualification frameworks, the national classifier of occupations, approved occupational standards, assessment tools, implemented educational programs, as well as registers of qualification assessment centers, experts, qualification certificates, and passports are formed and maintained. In addition, it provides the possibility to study and monitor the activities of qualification assessment centers remotely or on-site, as well as to introduce open and effective mechanisms for assessment processes. Thus, this platform serves to strengthen cooperation between government bodies, educational institutions, employers, and citizens, and to form a unified institutional environment for confirming, encouraging, and legally recognizing qualifications in line with labor market needs.

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The functions of the information system are as follows:

– Maintaining information on the activities of the Republican Council, sectoral councils, accredited qualification assessment centers, and the Institute;

– Obtaining a conclusion from the Sector Skill Councils confirming the recommendation for accreditation of a qualification assessment center (hereinafter – the Center);

– Developing sectoral qualification frameworks and occupational standards, conducting public discussions and expert review, approving them, maintaining their registers, and updating them;

– Forming and maintaining the register of occupational standards;

– Accrediting, monitoring, and maintaining the register of qualification assessment centers;

– Organizing qualification assessment processes in digital form (exam results, appeals);

– Generating QR-coded certificates for qualification assessment centers, certificates for advanced training courses organized by the Institute for the Development of the National Qualifications System (hereinafter – the Institute), as well as qualification passports or qualification certificates for applicants;

– Storing information on qualification assessment results, issued qualification certificates, and qualification passports, and maintaining their register;

– Forming the register of reviewed and implemented educational programs;

– Enabling users to create online resumes and register;

– Providing applicants with opportunities to use platform services remotely;

– Maintaining electronic records of participants of advanced training courses;

– Organizing distance advanced training and testing;

– Providing guidelines and document templates for accreditation for qualification assessment centers;

– Providing announcements on news, webinars, and conferences related to the qualifications system;

– Generating statistics, analysis, and forecasts based on collected data.

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Purpose of the information system

The purpose of the information system "Unified Digital Platform of the National Qualifications System" is as follows:

– to develop the national qualifications system, ensure the interconnection between the labor market and education, and organize the regulation, assessment, and development of qualification requirements on a legal and institutional basis;

– to ensure transparency in expanding opportunities for all citizens to engage in lifelong learning and to consistently continue their labor activities;

– to provide sector skill councils and users with real-time online access to regulatory documents and methodological materials;

– to establish processes for assessing and certifying the knowledge and skills of the economically active population in accordance with occupational standards;

– to develop the conceptual model, technical architecture, and functional modules of the information system based on the experience of developed countries;

– to reduce bureaucratic burden by decreasing paper document circulation by 90%;

– to increase efficiency by reducing time expenditure by 70–80%.

Study of foreign experience

In the Russian Federation, the main institutional entity responsible for the development of the national qualifications system is the National Agency for Qualifications Development (NARK), which operates as the key organization coordinating the activities of the National Council under the President of the Russian Federation. The Agency performs the functions of a center for vocational training, retraining, and advanced training of workers in accordance with Resolution No.2042-r of the Government of the Russian Federation dated September 29, 2016. The coordination functions of the Agency include synchronizing the activities of employers and their associations, professional communities, government bodies, and organizations in the field of education. At the same time, the unified digital platform created by NARK – NARK.ru – serves as the main electronic platform for the digitalization and centralization of independent qualification assessment processes. The platform ensures a unified system for working with occupational standards, accreditation of qualification

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assessment centers, certification processes, and regulatory legal documents. The main functions of the NARK.ru platform include maintaining a register of professional qualifications, providing information on accredited qualification assessment centers, automating the process of candidate registration for examinations and certification, as well as providing guidelines for qualification verification and accreditation for employers and qualification assessment centers. In addition, the platform enables searching for information on certification, legislation, and occupational standards, as well as providing announcements related to news, webinars, and conferences. The target audience includes applicants, employers, qualification assessment centers, as well as government bodies and educational institutions. Applicants use the platform to search for qualification centers, apply for exams, and receive consultation on certification; employers obtain information on verifying employees' qualifications and implementing occupational standards. Qualification assessment centers use the platform for documents and guidelines required for the accreditation process, while government bodies and educational institutions use it to develop occupational standards and align educational programs with labor market requirements. As a result, NARK.ru serves as a unified and main resource of the independent qualification assessment system in Russia, ensuring openness, transparency, and reliability, and has strategic importance for employers, educational organizations, and citizens.

https://nark.ru/

Experience of France: **AFPA (Agence nationale pour la Formation Professionnelle des Adultes)** is one of the main institutions in France responsible for adult vocational education and training, playing a strategic role in the implementation of vocational retraining and advanced training programs for adults. The official digital platform of AFPA (https://www.afpa.fr) provides users with a convenient and intuitive interface, flexible design, and simplified navigation. Through the platform, users can obtain detailed information about educational programs, courses, costs, and career prospects, submit applications, and manage their activities through a personal account. In addition, companies can select appropriate training programs for their employees, while institutional partners can access additional resources. The main functions of the AFPA

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platform include: providing detailed information on educational programs and courses; a search system by occupations; training programs for companies; management of applications and registration through a personal account; FAQ, guidelines, and consultation; as well as interactive notifications on news and events. As a result, the AFPA platform serves as a key digital space in France for advanced training and vocational retraining, ensuring openness, efficiency, and user convenience, and providing rich content and management opportunities for users.

https://www.afpa.fr/

Experience of Kazakhstan: **Enbek.kz national digital platform**

In the Republic of Kazakhstan, the main state resource for digitalizing the labor market and ensuring employment of citizens is the unified national platform Enbek.kz (https://career.enbek.kz). The platform operates as a central tool for employment, development of professional qualifications, and labor market monitoring, and serves as an effective integrative and bridging mechanism in the implementation of state polic.

The main functions of the platform are adapted to the needs of candidates, employers, educational institutions, and government bodies. For candidates, it provides opportunities to create online resumes, access current vacancies, take qualification improvement tests and certification, and plan their careers. Employers can post vacancies, search for candidates based on qualifications, and use labor market analytics. Educational institutions can place their programs and cooperate with employers in internships and training processes. Government bodies are engaged in monitoring employment, analyzing the labor market, and supporting state programs. The platform has a high level of interactivity and complexity: it includes a system for searching vacancies and learning opportunities, integration with public services, and online training and certification processes. At the same time, managing large volumes of data, ensuring automated verification and certification processes, and maintaining information security requirements guarantee the effective and reliable operation of the system. As a result, Enbek.kz serves as a central resource for digitalizing the labor market and ensuring employment in Kazakhstan, providing openness, transparency, and prompt services, and creating an effective management

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mechanism for all stakeholders.
https://career.enbek.kz/

Conclusion

The implementation of the Unified Digital Platform of the National Qualifications System based on an information system will bring the development of human capital in the Republic of Uzbekistan to a new stage. This information system serves to strengthen cooperation between educational institutions, employers, government bodies, and users, and contributes to the training of qualified personnel in line with labor market requirements.

Through the implementation of the information system, a consistent link between the labor market and the education system is ensured. Sectoral qualification frameworks, occupational standards, assessment tools, educational programs, the national classifier of occupations, and a database on professions are developed. The knowledge and skills of the economically active population are assessed and certified in accordance with occupational standards.

Opportunities for lifelong learning and the consistent continuation of professional activity are expanded. Sectoral councils, qualification assessment centers, experts, and users are provided with online access to regulatory documents, methodological guidelines, and other resources.

Effective management and monitoring mechanisms are developed based on advanced foreign experience.

As a result, the Unified Digital Platform of the National Qualifications System serves to create a transparent, efficient, and modern system for training competitive and qualified specialists in line with labor market demands, assessing their knowledge and skills, and ensuring their certification.

In order to ensure the effective and sustainable operation of the information system of the Unified Digital Platform of the National Qualifications System, activities should be carried out in the following areas.

1. A unified identification system for digital government users – ensuring secure access to the system and protected use of personal data.
2. Analysis based on artificial intelligence – identifying labor market needs, forecasting which occupations will be in high demand in the future, automatically

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aligning educational programs with occupational standards, automatically verifying the authenticity of certificates, evaluating the effectiveness of training courses, providing prompt consultation to users, generating documents, and conducting their initial expert review.

3. Ensuring integration with other information systems of government organizations, educational institutions, and employers.
4. Developing a mobile version of the platform for users and simplifying system usage through a simple and user-friendly design.
5. Collecting and analyzing large volumes of data on the labor market, education system, and migration processes in real time.
6. Providing statistical data of the system in an open format for the public and researchers, ensuring transparency.

Measures to ensure information security

Ensuring information security in information systems (IS) requires a comprehensive approach across all components of the system and at all stages of its lifecycle. Therefore, it is important to consistently apply organizational, technical, and software protection measures during the development, implementation, and operation of the IS. These measures serve to ensure the stable functioning of system resources, as well as the integrity, reliability, and confidentiality of information. Ensuring the cybersecurity of information systems and resources, maintaining the continuity of network operations, and timely informing authorized state bodies in the event of cyberattacks are among the key tasks. In addition, it is necessary to implement protective mechanisms to prevent unauthorized theft, falsification, or modification of data stored in the system. In this regard, it is required to use certified hardware, hardware-software, and software tools for protecting information systems, as well as to comply with existing regulatory legal documents and technical regulations in the field of cybersecurity. Monitoring user activities in the IS is also an important element of information security. In particular, if no actions are performed by a user for a certain period of time, the system session must be automatically blocked. User passwords must be stored in encrypted form in the database, and all user actions within the system must be recorded in special logs. These log records must be

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protected from deletion or modification, even by users with administrator-level access.

During the development of the information system, the requirements of the information security policy in force within the customer organization must also be taken into account. At the stage of system implementation, it is recommended to use hardware-software protection tools such as firewalls to protect internet resources and prevent DDoS and other types of cyberattacks. These tools should be applied at the connection points between the information system and the internet network, as well as within local and corporate networks.

The stable operation of the information system is based on a number of priority requirements. In particular, it is necessary to ensure that authorized users can access required information in real time, and that the integrity, reliability, relevance, and protection of information from harmful external impacts are maintained. At the same time, the system administrator should be provided with the ability to modify users' access rights as needed.

Physical protection measures also play an important role in ensuring information security. In particular, the premises where IS servers and network equipment are located must be protected from unauthorized access and external impacts. To protect the server infrastructure, it is recommended to use identification and authentication, access control, logging and auditing, firewall protection, antivirus protection, security assessment tools, as well as intrusion detection and prevention systems.

Proper allocation of user rights in the information system is an important requirement. The system's core software must be regularly tested to ensure that it has no vulnerabilities to unauthorized access or denial-of-service (DoS) attacks. Data exchange within the system must be carried out through encrypted communication channels. For this purpose, it is recommended to use secure communication channels that support the HTTPS protocol and SSL technology. VPN tunnels may be established between system components. During the deployment and operation of the platform, it is also important to ensure the availability of necessary material and technical resources. To guarantee the stable operation of the system, qualified specialists with in-depth knowledge of its architecture and functional components must be engaged. The system's software

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code must be resistant to common vulnerabilities found on the internet and should be developed using technologies that enable the identification and elimination of potential security risks. System security is ensured through a number of technical mechanisms. These include managing user access rights, encrypting the database, preventing the injection of malicious data, and mitigating the impact of denial-of-service attacks. The use of object-oriented database APIs in the system reduces the likelihood of security vulnerabilities caused by developers. In addition, writable directories at the file system level are restricted, and potentially dangerous file extensions executable by the server are controlled. User accounts must be managed on the server side, and the authentication process must be organized based on reliable algorithms. User passwords must be stored in a "salted" and hashed form. Mechanisms for filtering user-generated content must also be implemented to prevent the introduction of potentially harmful elements into the system. To ensure the stable operation of the information system, preventive and corrective maintenance activities are carried out by system developers. It is recommended to use modern programming technologies in system development. In particular, programming languages such as PHP, Python, Java, Node.js, and Kotlin, as well as database management systems such as MySQL, PostgreSQL, or MongoDB, may be used. In the process of collaborative software development, the use of version control systems, in particular the Git platform, is of great importance.

To ensure the effective implementation of the project, it is necessary to involve backend and frontend developers, UI/UX designers, test engineers, as well as cybersecurity specialists. In order to ensure system quality, testing must be carried out at each stage of the development process. In addition, within the framework of the project, sufficient financial resources must be allocated to cover technical equipment, software licenses, remuneration of specialists, and other expenses. When processing restricted data in the information system, it is necessary to strictly comply with the requirements of national and international standards. In particular, O'z DSt 2814:2014, the O'z DSt ISO/IEC 15408 series of standards, as well as O'z DSt ISO/IEC 27000, ISO/IEC 27001, ISO/IEC 27002, ISO/IEC 27003, ISO/IEC 27004, and ISO/IEC 27005 standards serve as a methodological basis for information security management, risk assessment, and the

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implementation of protection mechanisms. These standards make it possible to ensure information security in the information system in a comprehensive manner and to organize cybersecurity at a high level.

Monitoring and maintenance measures

In order to ensure the continuous operation, stability, and security of the system, mechanisms for continuous monitoring and maintenance are implemented. These processes are carried out in the following areas:

a) Monitoring mechanism

Real-time monitoring: The system's operational status is continuously monitored using modern tools such as Grafana and Prometheus. This method allows tracking system load, errors, and network activity in real time.

Audit logs: Every user action and system change is recorded in special audit logs. This enables ensuring security, quickly identifying issues, and conducting analysis.

Automated development process: Through the GitLab CI/CD system, processes such as code testing, deployment, and updates are carried out in an automated manner. This reduces the human factor and increases reliability.

b) Maintenance

Preventive maintenance: System modules, server software, and security updates are installed on a scheduled basis every month. This measure ensures stable system operation and prevents vulnerabilities.

Corrective maintenance: Identified system errors are immediately eliminated, relevant modules are retested, and full functionality is restored.

Support service: Technical support is provided to users by helpdesk and monitoring teams operating 24/7. Requests are recorded through a special ticket system, and their execution process is monitored.

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As a result of the implemented process, the following outcomes are achieved:

- The possibility is created to quickly verify the authenticity of certificates of accreditation, qualification certificates, qualification passports, professional development certificates, and other documents.
- Information exchange between sector skill councils, the Institute, employers, educational organizations, and government bodies is accelerated, document flow is digitalized, and bureaucratic delays are reduced.
- Based on artificial intelligence, the demand and supply for occupations are analyzed, and future required occupations and competencies are identified.
- The opportunity to use approved occupational standards in real time is created.
- A database related to the qualifications system is formed.
- The share of qualified personnel in the labor market increases, the unemployment rate decreases, and economic competitiveness grows.
- Professional development processes are fully digitalized and centralized management is established.
- Time expenditure is reduced by 70–80%, and efficiency increases.
- Secure access to the system and protection of personal data are ensured through digital government identification.

The following key risks may arise during the process:

Technical Risks

– Disruptions in integration with the identification system (ID.GOV.UZ and other government information systems);
– Failures in server and network infrastructure;
– Unstable internet connectivity in certain regions;
– Malfunctions in the database or insufficient protection of backup data.

Solutions: implementation of technical monitoring systems, establishment of backup servers, use of cloud solutions, and deployment of failover mechanisms to ensure continuity.

Cybersecurity Risks

– Unauthorized use of users' personal data;
– Unauthorized system access or threats through malicious software

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(malware, phishing);

– Weak passwords or insufficiently secure authentication mechanisms.

Solutions: regular security audits, user training on information security, implementation of two-factor authentication, data encryption, and use of secure protocols (HTTPS, TLS).

Financial Risks

– Delays in financing system development, technical support, or service delivery;

– Reduction of technical resources due to budget constraints.

Solutions: phased budget planning, application of public-private partnership (PPP) mechanisms, and attraction of grants and international funding sources.

User-Related Risks

– Lack of user skills in operating the system;

– Technical issues in remote learning or online training;

– Lack of user trust in the new system.

Solutions: development of online training and video tutorials, introduction of voice assistance and accessibility features (e.g., enlarged interface), and ensuring 24/7 operation of technical support services.

Social Risks

– Complaints from users dissatisfied with learning and assessment results;

– Decline in trust toward the system or emergence of negative public perception.

Solutions: adherence to transparency and openness principles, involvement of independent experts in evaluation, and establishment of a feedback system.

Organizational Risks

– Coordination challenges in cooperation and data exchange between different institutions;

– Lack of clear distribution of responsibilities among responsible organizations.

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Solutions: establishment of a unified coordination council for system governance, documentation of roles and responsibilities, and regular coordination meetings.

Governance Risks

– Delays in decision-making processes;
– Changes or inconsistencies in system priorities.

Solutions: application of project management methodologies (PMI or Agile), simplification of decision-making processes, and implementation of a regular reporting system.

Operational Risks

– Failures or disruptions during daily system operation or maintenance;
– Errors in data exchange processes.

Solutions: development of operational regulations, implementation of automated monitoring, and introduction of rapid incident detection and recovery protocols.

Technological Risks

– Rapid obsolescence of selected technologies or challenges in updating them;
– Changes in APIs of integrated government systems.

Solutions: use of open standards, regular technology updates, and implementation of version control systems (Git, CI/CD).

Human Resource Risks

– Shortage or turnover of qualified specialists;
– Low motivation among project participants.

Solutions: implementation of training programs and certification systems for staff, and development of incentive mechanisms.

Legal and Regulatory Risks

– Amendments to the legislation of the Republic of Uzbekistan or sector-specific regulatory frameworks;
– Legal conflicts related to data processing or storage.

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Solutions: strict compliance with current legislation during implementation, engagement of legal advisors, and continuous system updates in line with legal changes.

As a final solution, the following measures will be implemented to ensure the sustainable operation of the information system:

– Implementation of technical monitoring and security audits;
– Development of online learning resources for users;
– Introduction of an adaptive interface (voice assistance, enlarged fonts, browser compatibility);
– Provision of additional technical support services (call center, chatbot);
– Establishment of a system for continuous monitoring of legislative changes.

Use of Unified Technological Approaches

The use of unified technological approaches within the information system of the Unified Digital Platform of the National Qualifications System is crucial for ensuring its efficiency and sustainability. The following are some commonly applied core technological approaches:

– Server software (e.g., Nginx, Apache, etc.);
– Database management systems (e.g., MySQL, PostgreSQL, SQLite, etc.);
– Programming languages such as PHP, Kotlin, and others.

For deploying the system into a production environment, it is recommended to use containerization-based solutions such as Docker, Kubernetes, and similar technologies.

In addition, the platform's backend and frontend include the following technology stack:

HTML, CSS, and JavaScript – these are standard web technologies used for building the frontend of web applications. HTML is used for structuring content, CSS for styling, and JavaScript for adding interactivity to web pages. Furthermore, the information system should utilize reference data, classifiers, and unified identifiers of the Digital Government system.

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Results of Functional Process Optimization during the Implementation of the Unified Digital Platform

The optimization of functional processes is one of the key organizational and technological tasks in the development and implementation of the information system of the Unified Digital Platform of the National Qualifications System. This process involves a comprehensive set of measures aimed at systematically analyzing existing operational mechanisms, digitizing them, and improving their efficiency through the use of modern information technologies. As a result of the work carried out during the platform implementation, the optimization of functional processes has been achieved across several priority areas.

Existing functional processes were comprehensively analyzed, with particular attention given to the stages related to service delivery and organizational activities. As a result of the analysis, key issues within the processes were identified, including excessive time consumption and inefficient use of resources. Based on these findings, proposals and recommendations were developed to address and eliminate these shortcomings. To ensure a systematic understanding of the processes and to facilitate more effective management, the processes were mapped in graphical form. This approach made it possible to clearly define the step-by-step structure of the processes, demonstrate their interconnections, and establish a solid analytical foundation for informed decision-making.

Particular attention was given to the automation of functional processes during the development of the information system. In particular, automating repetitive and manual operations made it possible to accelerate workflows and reduce errors associated with the human factor. At the same time, data exchange processes were improved through the integration of the information system with other information resources. Such an integration-based approach ensures a seamless flow of information between different organizations and expands the functional capabilities of the system.

One of the key areas of functional process optimization is effective data management. Within the platform, a centralized database has been established, enabling the storage of all necessary information in a unified environment and ensuring quick access to it. In addition, the introduction of real-time data analysis

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mechanisms allows for continuous monitoring of process performance and enables prompt managerial decision-making when necessary.

The implementation of this platform will also have a significant impact on improving operational efficiency. Through the optimization of processes, redundant operations are reduced, the efficiency of resource utilization is increased, and opportunities are created for a more rational allocation of human and material resources. This, in turn, contributes to enhancing the overall performance of the organization while enabling a more systematic and structured approach to management processes.

In addition, the platform contributes to the improvement of service delivery processes for users. By developing mechanisms for managing interactions with users, service processes are simplified and enable the prompt satisfaction of users' needs and requirements. The introduction of a modern and intuitive user interface further enhances ease of use and significantly improves the overall user experience.

The introduction of process control and monitoring mechanisms is one of the key factors for the effective management of functional processes. Through the platform, it becomes possible to continuously monitor each process, analyze its performance, and identify potential issues at an early stage. Such a monitoring system ensures transparency in management processes and enhances the efficiency of operational decision-making. Overall, the implementation of the Unified Digital Platform of the National Qualifications System ensures the automation of functional processes, accelerates data exchange, and improves management efficiency. At the same time, it reduces errors and risks within processes, optimizes the use of resources, and enhances the effectiveness of interaction with users. As a result, a sustainable and efficient system based on the principles of digital governance is established within the organization.

Prospects for the Development and Improvement of the Unified Digital Platform

– Ensuring scalability to handle an increasing number of processes and users without compromising system reliability and performance (including through enhancement of hardware capacity);

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– Modification, expansion, and addition of data exchange formats and protocols;
– Adaptation to changes in legislation and corresponding automated processes;
– Integration with other information systems.

In addition, it is necessary to ensure the possibility of improving performance through scalable solutions.

Development of a system of social and economic indicators for evaluating the effectiveness of Information System implementation

The key performance indicators achieved through the implementation of the information system of the Unified Digital Platform of the National Qualifications System are assessed across both social and economic dimensions. These indicators serve to evaluate the project's contribution to the country's education system, labor market, and overall economic development.

Social Efficiency Indicators

Level of equal opportunities for users

– The share of vulnerable groups (women, persons with disabilities, people of retirement age) who have the opportunity to improve their qualifications through the platform will be increased up to 25–30%.
– Specially adapted interfaces for persons with disabilities will be introduced.

Lifelong learning index

– The number of citizens changing their profession or acquiring a new qualification will constitute at least 10–15% of the total economically active population.
– Through opportunities for advanced training and retraining via the platform, the culture of "lifelong learning" will expand.

Competitiveness of the workforce

– 60–65% of individuals who have obtained a qualification certificate or qualification passport will be employed in the labor market.

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– Among holders of qualification certificates or qualification passports, the rate of job retention or transition to higher positions will increase up to 40–45%.

Level of satisfaction

– At least 70% of course participants will express positive opinions regarding the usefulness of the platform and the quality of training.
– A continuous analysis system will be introduced through electronic surveys.

Regional coverage

– Access to digital services will be ensured in all regions of the republic (100%).
– The share of users in rural areas will constitute at least 60%.

Economic Efficiency Indicators

Growth of labor productivity

– The productivity of production or service delivery of trainees who studied through the platform will increase on average by 20–25%.

Reduction of unemployment rate

– The employment rate of individuals holding a qualification certificate or qualification passport will increase by 20–30%.
– The unemployment rate among youth will decrease by 2–3%.

Labor market matching indicator

– The employment rate of individuals with qualifications aligned with international standards will reach 70–75%.
– The volume of qualification assessments conducted by employers through the platform will increase by 70%.

Economic efficiency of distance learning courses

– Due to distance learning, travel, accommodation, and organizational expenses of trainees will decrease on average by 30–40%.
– Individuals undergoing professional development will be able to continue their work activities without interruption.

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Efficient use of state budget funds

– As a result of electronic certification processes conducted through the platform, administrative costs will decrease by 25–30%.

– Overall economic efficiency will increase by up to 20–30% due to digitalization.

Conclusion

This project serves to develop human capital, establish an effective digital linkage between the education system and the labor market, and ensure economic stability through the rational use of state resources. The project has high social and economic efficiency and ensures sustainable operation, taking into account inflation and external financial risks.

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