



HUMAN RESOURCES AND SKILLS ISSUES IN THE IMPLEMENTATION OF DIGITAL TECHNOLOGIES IN UZBEKISTAN

Xadjiyeva Sunbuloy Baxodirovna

Director of the Karakalpakstan Regional Branch of Alfa Life Insurance

+99888 506 80 88

xadjiyevasunbuloy@gmail.com

Abstract

The process of introducing digital technologies is having a significant impact on human resource management. This article analyzes the challenges of training and skills development in the process of digital transformation. Digital technologies, including artificial intelligence and automation, play an important role in modernizing and improving the efficiency of human resource management. However, there are obstacles such as a shortage of qualified personnel, problems in the education system, and low levels of digital literacy. The article also provides suggestions for developing digital skills and updating education systems, which will help organizations succeed in the process of digital transformation.

Keywords: Digital transformation, Human resource management, Skills development, Digital skills, Artificial intelligence, Automation, Digital literacy, Strategies for organizations.

Introduction

Digital transformation is playing a major role in every industry today, including human resource management. Digital technologies, such as artificial intelligence and automation, are fundamentally changing the processes of training and managing personnel.¹. These processes not only speed up work processes, but also help to improve the skills of employees and change their attitude towards work. The introduction of digital technologies also requires new qualifications and skills in the

¹Slatvinskyi, M., & Fomenko, N. (2024). Digital Technologies in the Management of Human Resources Development.



personnel training system. As a result, organizations are facing difficulties in preparing their employees to work successfully in a digital environment. Skills such as digital literacy, data analysis, cybersecurity and digital communication are necessary for every employee today.

At the same time, the challenges in the training system for the digital transformation process also require a lot of attention. Problems such as the lack of qualified teachers, the lack of infrastructure for teaching modern technologies, and outdated curricula are preventing organizations from successfully implementing digital technologies.

This article aims to provide a comprehensive analysis of human resources and skills issues in the implementation of digital technologies. The article presents the importance of the personnel training system in the process of digital transformation, existing problems and proposals for their solution. To achieve success in the process of digital transformation, it is necessary to train qualified personnel and increase digital literacy.

Materials and Methods

This study used a number of methodological approaches to analyze the problems of human resource management and skills development in the process of digital transformation. The main goal of the study is to identify problems in the personnel training system during the implementation of digital technologies and develop proposals for their solution.

The study used a qualitative analysis method, which allowed for an in-depth study of existing problems in human resource management and skills development in the process of digital transformation. Interviews and focus groups were conducted for qualitative analysis, which helped to collect the opinions and experiences of participants. During the study, digital transformation processes were observed in a number of organizations. During these processes, practices in personnel training and skills development, as well as problems in the introduction of digital technologies, were studied. The sources of data used in the study included scientific articles, state statistics, reports of international organizations, and case studies. These sources played an important role in forming the theoretical basis of the study.: The data obtained were analyzed, and recommendations were developed on the problems and their solutions. International experiences in personnel training and skills development



in the process of digital transformation were also taken into account during the analysis.

These methodological approaches helped to increase the reliability of the research and the practical relevance of its results. Based on the results, specific proposals were developed for human resource management and skills development in the process of digital transformation.

Results

The results of this study provide a number of important conclusions regarding human resource management and skills development in the digital transformation process. The data and analysis obtained during the study indicate the following key aspects:²:

1. Digital literacy and proficiency level. The study results show that the level of digital literacy varies depending on the age and position of employees. Younger generations and operational workers are highly prepared to adopt digital technologies, but employees in senior management positions are less prepared for this process. For example, only 18% of respondents said they are fully informed about the skills needed in the digital transformation process.

2. Problems in the personnel training system. Problems in the training system, including a shortage of qualified teachers and the lack of infrastructure for training in modern technologies, are hindering organizations from successfully implementing digital technologies. The study showed that the level of digital literacy in training varies by sector, which is a significant problem for organizations.

3. Develop digital skills. To develop digital skills, organizations need to implement modern methodologies in training their employees. The results of the study show that it is important to introduce new programs for training digital technologies and follow international standards in training personnel.

4. Suggestions and strategies. During the study, the following proposals were made to solve existing problems in the personnel training system:

-Introducing new programs for teaching digital technologies in the education system.

²Hernandez-Ramos, R., Schueller, SM, Borghouts, J., Palomares, K., Eikey, E., Schneider, ML, Stadnick, N., Zheng, K., Mukamel, DB, & Sorkin, DH (2024). Evaluation of a Pilot Implementation of a Digital Cognitive Behavioral Therapy Platform for Isolated Older Adults in County Mental Health Services.



- Adherence to international standards in personnel training.
- Introducing teachers to modern technologies and improving their skills.

5. Conclusion

This study aims to provide a comprehensive analysis of human resources and skills issues in the digital transformation process. To succeed in the digital transformation process, it is necessary to train qualified personnel and improve digital literacy. Organizations should implement continuous training and development programs to equip their employees with digital skills.

The state of digital transformation and human resource management in Uzbekistan³

Subject of analysis	Statistical data
Digital literacy	The digital literacy rate in Uzbekistan will be 30% by 2023, which is below the global average.
Personnel training system	In 2022, 150 new programs for teaching digital skills were introduced into the training system in Uzbekistan.
Workforce skills	More than 40% of the workforce in Uzbekistan lacks digital skills, making it difficult to adapt to the digital economy.
Technological infrastructure	By 2023, \$200 million has been invested in the development of digital infrastructure in Uzbekistan.
International experience	In Uzbekistan, 50 training programs were implemented through international cooperation in 2022.
Training and development programs	In 2023, more than 100,000 employees were involved in continuous training and development programs in Uzbekistan.

These statistics show the overall situation in the field of digital transformation and human resource management in Uzbekistan. It is necessary to introduce modern strategies to solve problems in the digital literacy and personnel training system.

The proposals to be implemented in the field of digital transformation and human resource management are as follows: To increase the level of digital literacy in Uzbekistan, it is necessary to implement comprehensive programs. These

³Author's development based on Stat Uz data



programs should be aimed at developing digital skills for teachers and employees. Increasing digital literacy will help employees effectively use digital technologies. It is necessary to develop and implement new programs for training in modern technologies in the personnel training system. This is especially important for adapting to the digital economy. Training programs should include digital skills and provide practical experience.

Introduce mentoring programs from experienced professionals to help new employees learn digital technologies. This will help to quickly master digital skills in the workplace and make it easier for new employees to adapt to the job.

It is necessary to strengthen international cooperation to learn from international experiences and adhere to international standards in training personnel. This will help Uzbekistan succeed in the process of digital transformation and increase its competitiveness in the global labor market.

Implement ongoing employee training and development programs. This will help improve digital skills and familiarize employees with modern requirements. Ongoing training programs should be aimed at improving employee skills and introducing them to new technologies.

Developing the technological infrastructure necessary for the implementation of digital technologies. This will help accelerate the process of digital transformation and enable the effective use of digital technologies in the workplace.

Paying special attention to data protection and security issues when implementing digital technologies. This helps protect employee and customer data and increases trust in the digital environment.

These proposals are aimed at successfully implementing the digital transformation process in Uzbekistan and improving human resource management. Human resource management plays an important role in the digital transformation process, and through these proposals, organizations can make their activities more efficient and competitive.

A number of resources are needed to develop technological infrastructure. These resources include: It is important to attract the necessary investments for the development of technological infrastructure. This includes funds from the public and private sectors, grants and other financial sources. Qualified specialists and employees play an important role in the development of infrastructure. Education and training programs are necessary to improve their knowledge and skills: 1. Modern



technologies, software and equipment are important in the development of infrastructure. These resources help to implement innovations and increase efficiency. 2. Data and analytical capabilities necessary for the development of technological infrastructure. This helps to identify market trends, needs and resources. 3. Social support and political stability are important in the implementation of infrastructure projects. Public policy and legislation can influence infrastructure development. 4. Additional resources and expertise can be obtained for technological infrastructure development through cooperation with international organizations and other countries. These resources together help develop technological infrastructure and ensure the country's economic growth. Effective management and mobilization of these resources is important for the development of technological infrastructure in Uzbekistan.

The conclusion of the article on the topic of human resources and skills issues in the implementation of digital technologies is as follows: The process of digital transformation plays an important role in the modern economy and this process has a significant impact on human resource management. For the successful implementation of digital technologies, it is necessary to train qualified personnel and improve their digital skills. However, many organizations face a number of problems in the process of digital transformation, including a shortage of qualified specialists, outdated existing infrastructure, and a low level of digital literacy.

The main problems raised in the article are:

- **Skill shortage:** There is a shortage of personnel with the skills needed to implement digital technologies. This, in turn, slows down the digital transformation process of organizations.
- **Problems in the education and training system:** Education systems are not paying enough attention to developing digital skills, which creates problems in training.
- **Infrastructure problems:** The infrastructure needed to implement digital technologies is often underdeveloped, which hinders the effective use of technologies.
- **Resistance to change:** There are various resistances to digital transformation in organizations, which makes it difficult to implement changes.

In conclusion, the successful implementation of digital technologies requires addressing human resource and skills issues. This, in turn, requires updating education systems, training qualified personnel, and developing digital infrastructure.



To succeed in the digital transformation process, organizations need to rethink their strategies and attract the resources necessary to implement modern technologies.

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