

Digitalization models in civil protection HR systems

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Abstract

The article presents the peculiarities of defining models and methods of digitalization in civil protection HR systems. The efficiency of human resource management in projects involving the development and implementation of information systems through the use of models and methods of digitalization in civil protection HR systems is considered. The main objectives of the information system for human resource management in civil protection are proposed. The author also considers the transformation of digitalization of HR management, which will lead to various trends in the field of human resources management in civil protection, develops a flowchart for improving employee performance and the integration of new technologies for the digitalization of HR processes.

Keywords: HR management, HR processes, information systems, digitalization, automation, human resources.

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1. Introduction

The modern world is shaping up in a new environment where digital technologies are becoming increasingly important. They can significantly increase the level of labor efficiency and human well-being, and solve the challenges of public administration. Any changes affect the organization. One of the main drivers of technological change in the HR management of government agencies is digitalization, and the main goal of development is the production and use of digital logic circuits and its derivative technologies, including the computer, smartphone, and the Internet. Smart automation of HR management leads to a number of trends in the field of human resources management in civil protection. The main trend is the identification of new methods and models of HR management, the application of which requires the introduction of a human resources management information system. Systematization of HR processes will allow for more efficient management of labor productivity and human potential, as well as create a digital environment for staff. Government agencies today need to make decisions on adequate equipment and programs that allow them to respond quickly to changes in advanced technologies. Digital resources allow for effective management of process personnel for automation and will reduce the workload of routine mechanisms.

2. Analysis of recent research and publications

The analysis of recent research and publications has shown that the problem of automation and digitalization is being studied by many scientists, in particular, S. Bushuyev, A. Borysov, O. Zachko, V. Zhukovska, I. Kononenko. S. Bushuyev research highlights the development of the creative potential of project managers, an interactive multi-level model of emotional contagion developed using the earned value methodology in the project management process, and an additional strategic model for managing organizational entropy [1]. Voitushchenko A. defines the features of a creative product and its characteristics. Considerable attention is paid to the analysis of existing models for assessing the level of employee development, in particular, motivation and development of employees' creative potential. He shows how employee development affects the effective work of the organization, the advantages and disadvantages of using the P-CMM model [4]. The works of O. Zachko describe the digitalization of personnel management processes in project-oriented organizations in the field of security, standards for the formation of knowledge of project teams in security-oriented systems, content management models for one-template infrastructure projects under the influence of project changes [6]. I. Kononenko studies the process

of applying the methodology for selecting the level of maturity of portfolio management in an organization [9]. V. Zhukovska explores the peculiarities of modern forms of labor relations, analyzes the directions of digitalization of human resource management processes, which will allow organizations to increase their efficiency and productivity in the future [17]. To date, despite various research trends, the problem is the lack of automated personnel management programs for government agencies. Therefore, in the context of the country's digitalization, in order to effectively manage the personnel of public authorities, it is necessary to automate management processes in public authorities and improve operational processes on personnel issues, as well as to timely and effectively monitor the performance of public authorities on personnel management issues.

3. The bulk of research

One of the most significant trends affecting the digitization of HR processes and talent in organizations is technology. Simply put, technology in an organization is the process by which inputs from the organization's environment are transformed into outputs. Technology includes tools, machinery, equipment, work procedures, and employee knowledge and skills. The digital transformation of HR management brings a number of trends in the field of private sector HR management.



Fig. 1 illustrates the main trends in HR management

Organizations often use cognitive assessments to determine a candidate's level of intellectual potential and critical thinking based on the candidate's career experience and skills. Large companies with a high number of applications use artificial intelligence for the candidate screening system and select candidates who are able to work in a mixed mode with technology and humans. This will solve the problem of redundancy of tasks so that HR managers can focus on more valuable activities that require human contact. Training and mentoring of employees, executive coaching, organizational development, workplace culture, and expanding the role of the human resources department in companies around the world. Digital resources make it possible to rethink and organize effective human resources management by automating and improving routine mechanisms, as well as reducing the workload and funding of important tasks of the organization.

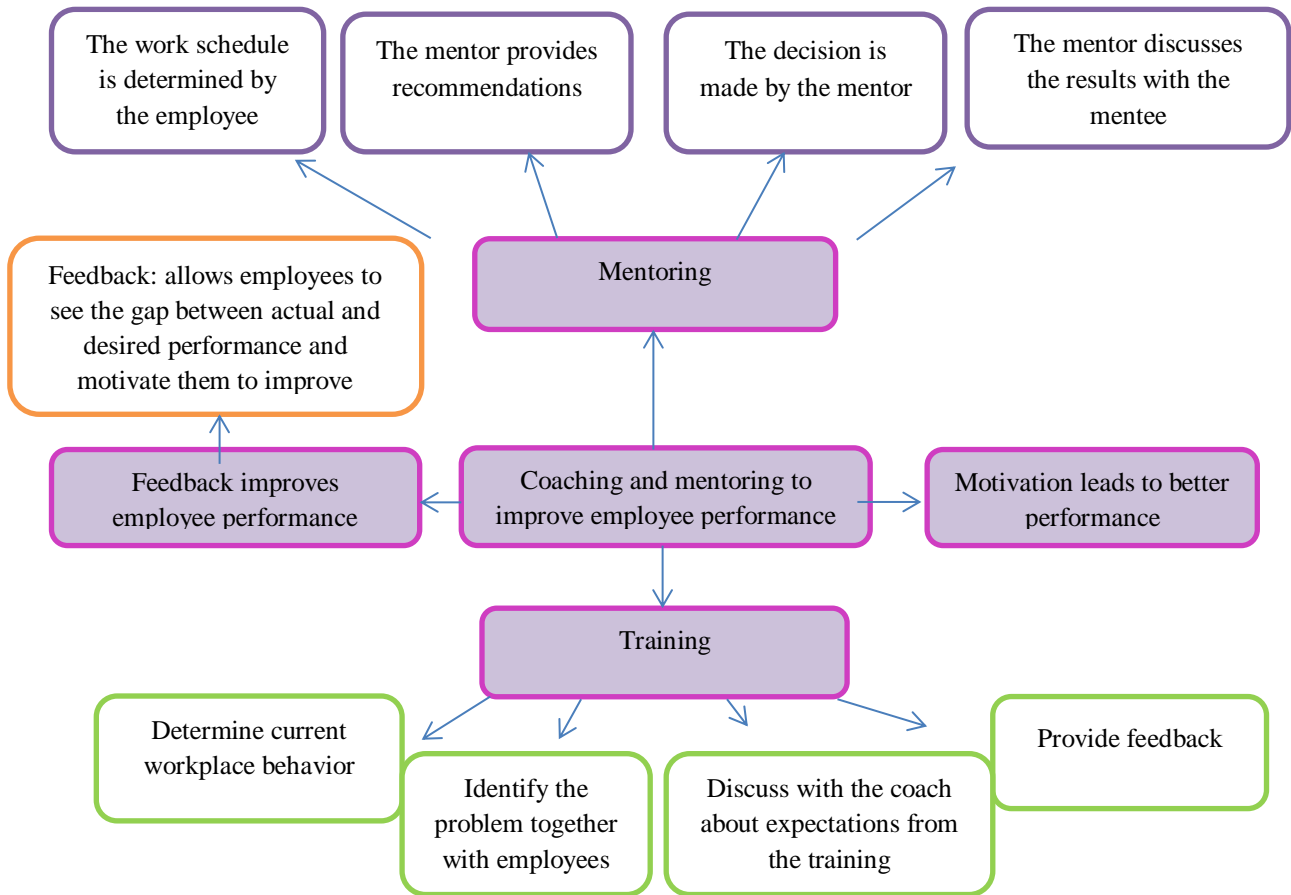


Fig. 2 shows a flowchart of the impact of coaching and mentoring on employee performance.

All organizations, whether they are industrial or service, public or private, large or small, use some form of technology to produce something for a broad market or for a specific customer category. The important financial aspects of adopting digital technology for an organization's HRM must be weighed against a number of important strategic and HR issues.

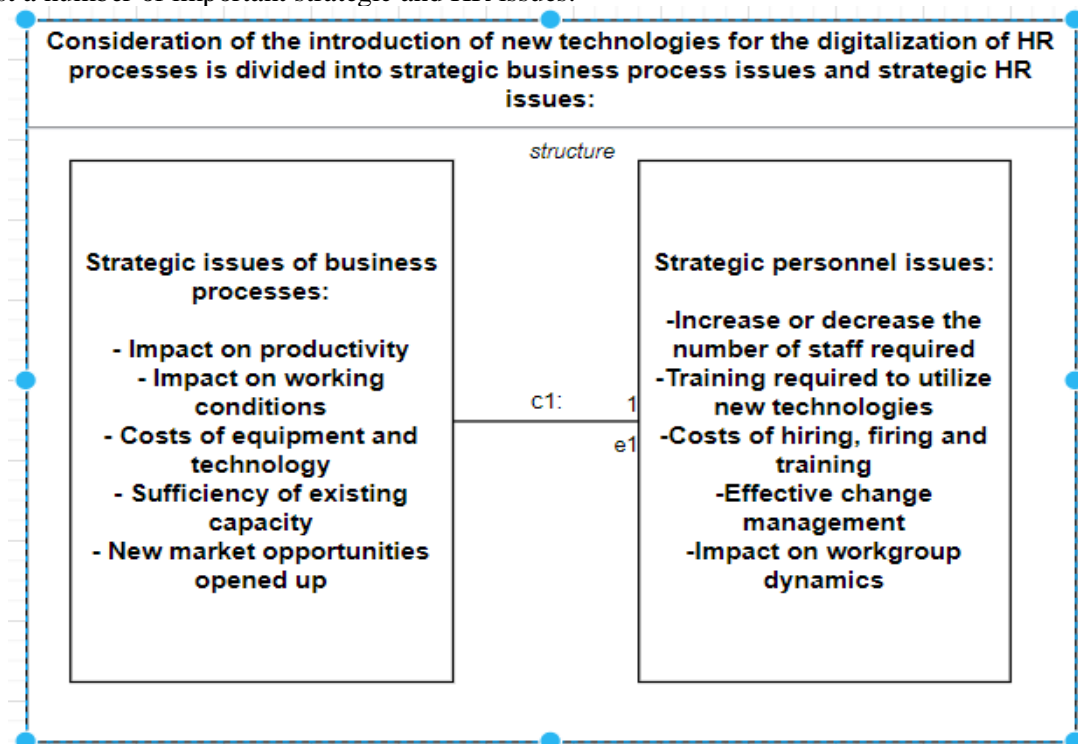


Fig. 3 Integrating New Technologies to Digitalize HRM Processes.

The human resources management information system provides a database for human resources management information and acts as a business intelligence for senior management to make personnel decisions. Its implementation aims to increase the efficiency and effectiveness of HR work, satisfaction of needs and consistency of actions in the automation of HR processes of civil protection personnel management. In addition, the HRMIS can function as a tool to facilitate the process of human resources management in government agencies. To evaluate its effectiveness, it is important to analyze the application and measure the level of effectiveness in relation to the satisfaction of employees (users) in the public sector.



Fig. 4 illustrates the objectives of an information system for human resources management in civil protection.

This information system will help HR specialists and professionals make faster, more accurate and efficient feedback and decisions. Using web-based technology, human resources functionality is simple, fast and up-to-date, with efficient management transaction data between employees and HR managers. Human resources should become more strategic, flexible, cost-effective, and user-friendly through the implementation of human resource management information systems. This suggests that the use of information technology has the potential to reduce administrative costs, increase production, provide quicker response, improve decision-making, and increase the effectiveness of employee-centered services. With the use of information systems, employees will be able to update information at any time by referring to it and printing documents that have been uploaded by HR managers. In addition, human resource management becomes easier and allows management to focus more on organizational goals and more important activities and strategic planning plans.

An important aspect of HR digitization is the ability to use the data obtained to support organizational changes, including the introduction of various IT systems that facilitate the work of other areas of government agencies. With the right tools, the HR department can become indispensable in every process of implementing new solutions. The use of information systems will allow employees to utilize powerful search capabilities. This means that employees can find files at the touch of a button, much faster than the time-consuming manual process of searching for a specific file in a hidden folder. Employees can use this extra time for other projects. Saving employees' time becomes especially valuable in connection with repetitive, high-volume tasks and work with large amounts of information, due to the large staff structure.

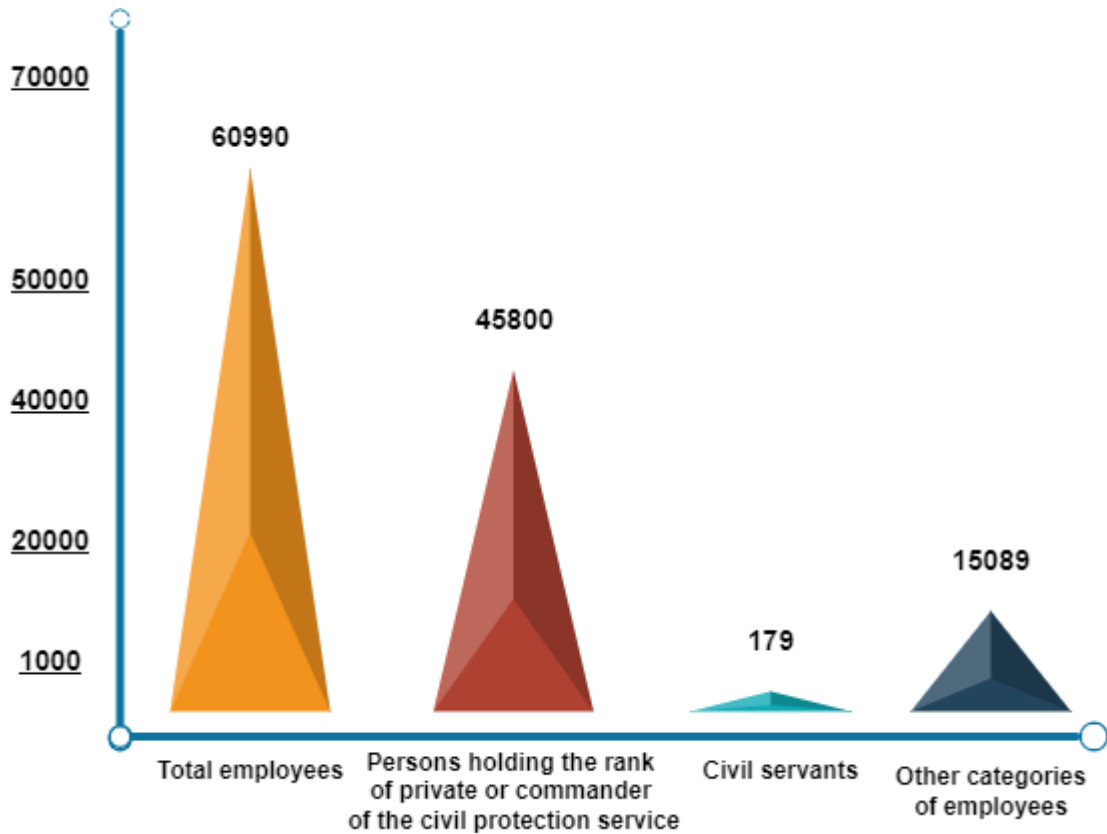
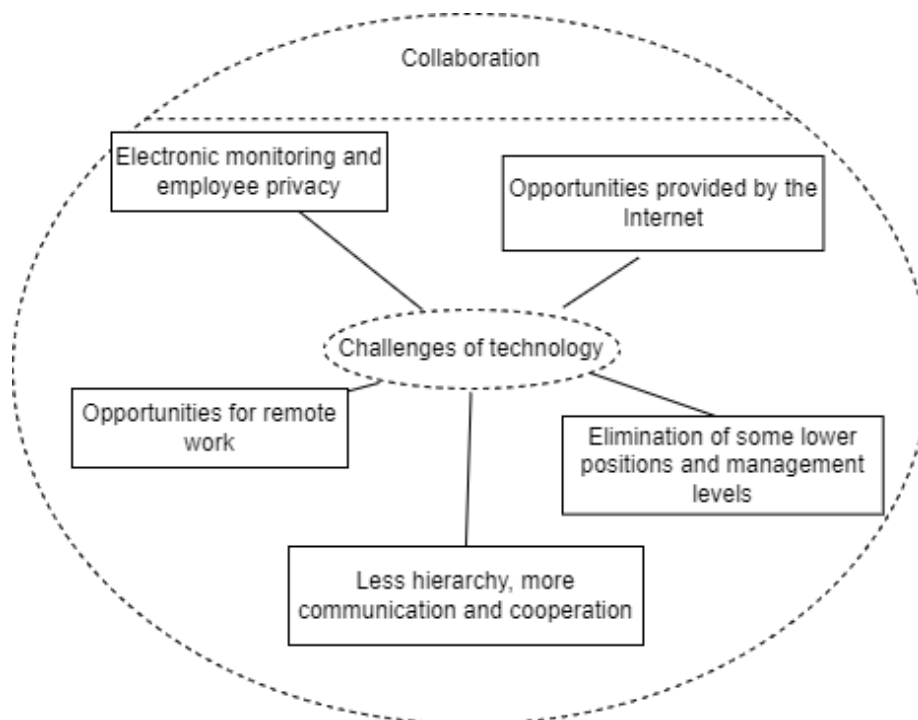


Fig. 5 shows the number of personnel in the civil protection service

With the advent and use of new technologies, the professional skills and work habits required of employees have also changed. There is now a much greater need to maintain and improve the skills of existing professionals than ever before. Gone are the days of employees working with the same skills and equipment to do their jobs.



In Fig. 6 shows five specific challenges that HR process technology poses to organizations in managing human resources

Data analysis and HR management define the features of a system used to accumulate, store, manage, analyze, retrieve, and disseminate information about human resources in a company. Automation consists of hardware and software, as well as personnel, documents, rules, strategies, processes, and data collection. It is

important to note that a company that does not have an automated system has a paper-based HR system. The paper-based HR systems used by most organizations before the development of information technology were still comparable to automating the organization's HR processes, but the processing of employee information was not as fast as in a computerized system.

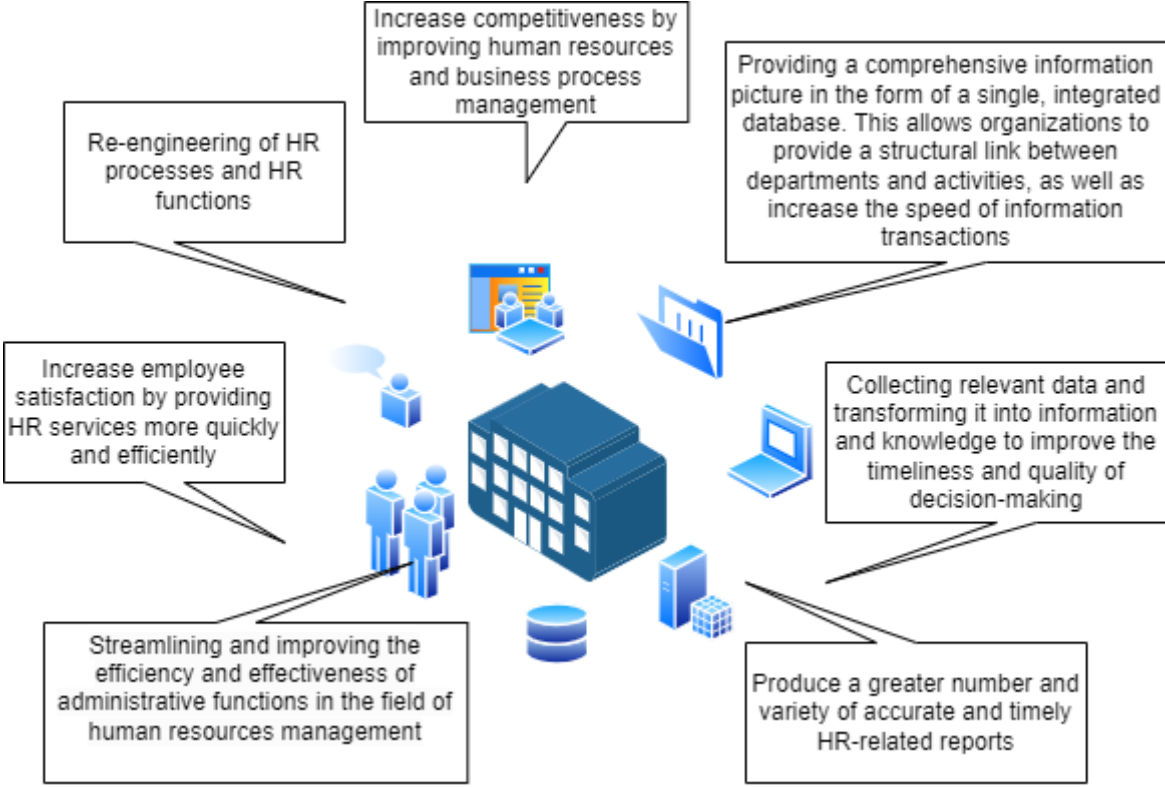


Fig. 7 shows the benefits of optimizing HR processes

Today's competitive environment requires companies to combine the activities of each structural unit without losing sight of the customer. Effective digitalization of HR processes helps managers and employees providing technology for the generation of reliable, up-to-date and timely information. Based on the above, the digitalization of an organization's HR processes takes place in two directions: the creation of new HR models and the digitalization of existing HR processes.

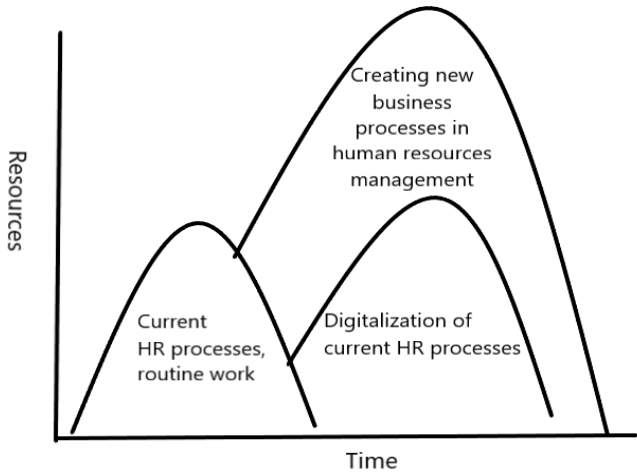


Fig. 8 shows that creating a new HR model in human resource management requires more time and resources for its implementation, while optimization saves time and resources. The choice in favor of a particular transformation should be made based on the competitive environment in which the company

operates: the level of current digital maturity, the specifics of the company's activities, and external environmental factors.



Fig. 9 shows the potential for digitalization of HR processes

Digital transformation of HR means changing the way HR functions by leveraging data in all areas, including payroll, performance management, learning and development, benefits, rewards, motivation, and recruitment. The role of the HR team in digital transformation is to take ownership of its own transformation by leveraging automation and big data-driven digitalization. HR manages the digital transformation of the organization itself, working closely with the IT department to support the digital evolution ecosystem.

4. Conclusions

Based on the results of the conducted research and observations, it was determined that today's civil protection personnel management requires new ideas and approaches. To improve the personnel authorities,

it is advisable to introduce automated systems that are a comprehensive technological solution to personnel management tasks, ranging from daily operational accounting of personnel data to optimization of personnel issues. The functions of information systems are not limited to personnel accounting, but include problematic issues that exist today in the civil service personnel processes: decision-making to solve these problems, monitoring of large amounts of information, development, training and performance evaluation of personnel. The future of human resources will continue to be shaped by changing trends. Factors that strongly influence human resource management include accelerated digital transformation and the new workspace scenario. These new changes are coming slowly, but they are now becoming increasingly important. Contrary to the general perception, human resources is not shrinking as a professional career, but is actually growing and evolving rapidly. Technological innovations have fueled this fire, and HR is no longer just about job interviews and conflict resolution. It's about enhancing the overall experience between employees and the organization and creating a win-win equation for them.

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