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**Article**

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## PERSONNEL WORK PROCESS USING DIGITAL ECONOMY APPLICATION PROGRAMS

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***Abstract:** Information technologies are emerging as systems that can meet the emerging demands of the business world in the conditions of increased competition and globalization. Today, with the help of information technology, it has become a value that can be multiplied and continuously produced and shared. Today, increased functionality with information technology has become the most important weapon of enterprises. Today, information technologies are used as the most important means of value creation, change, and renewal. The main purpose of the article is to determine the selection, training, and motivation of personnel for the digital economy. Also, the role of personnel emerging as a result of the digital revolution in the economy was particularly emphasized. The relevance of the study is that the increase in the labor productivity of the organization's employees and the increase in the efficiency of the personnel management system resulting from the use of digital technologies as a whole result in the increase of the competitiveness of the organizations.*

***Keywords:** digital economy, digitalization phenomenon, digital technologies, academic research.*

### INTRODUCTION

The globalization phenomenon that accompanied the development of information technologies and the post-industrial revolution affected economic and social structures as well as business life. The introduction of new technologies, the spread of industrial and service production on a global scale, changes in the management and organizational structures of enterprises, and the flexibility of production to meet the needs of consumers have changed work life at a high level. (AR, 2023; Əliquliyev, 2019)

Meanwhile, macro-level neoliberal policies, successive economic crises rising unemployment around the world, regulation, enterprise-level flexibilities, and human resource approaches have weakened the power of trade unions. A reflection of the digitization process in work life is the monitoring and management of the work environment through digital technologies. Monitoring the work environment through cameras and various sensors installed in workplaces and offices has security advantages. However, ignoring the privacy of a person in this regard, continuous monitoring of employees through cameras is a serious problem for personnel in the work process. (Armstrong's Handbook, 2015).

Digitization requires the adaptation and development of new knowledge and new work methods. Digital technologies are modern tools for the ever-changing way in which organizations employ, manage, and support people. (Barber, 2006)

Automation of many processes, increasing the speed of operation, various possibilities, and convenience - all these are positive aspects of digitalization. The negative aspects of this include making the management process more complicated, the lack of qualified personnel working with personnel management, and a large part of the collected data. (Bennet & Lientz, 2011)

The basis of the study is that the increase in the labor productivity of the organization's employees and the increase in the efficiency of the personnel management system resulting from the use of digital technologies in general result in an increase in the competitiveness of organizations. (Bohlander, et.al., 2010, p.231)

In the digital economy, such forms of work are gaining popularity, such as freelancing and outsourcing. According to the World Labor Organization, the number of remote workers worldwide is 17%, and in Japan and the United States, this number has already reached 40%. (Ceylan, 2014)

According to World Statistics data, 31% of job seekers wanted to work from home at the end of 2019 and the beginning of 2020. 14% of them are freelancers, and 17% are employees who are not on the payroll of companies. It is considered very necessary to use new modern approaches and take into account the features of this work in the management of a large number of employees - remote workers. (Ehnert, 2013; Ergin, 2019)

It was observed that the companies that allow their employees to work remotely from home are also the companies that have built the technological infrastructure to allow this in previous years and at least allow their employees to work remotely. The investments made by these companies in previous years in tools that support virtual work and communication have ensured that they can respond quickly to such a crisis. In the current situation, infected workers, even those who are suspected of not being infected, are naturally out of work during the diagnosis and treatment processes, which is a huge waste of time for office workers. (Rahmanov, 2022)

Companies should establish central decision mechanisms that can make quick decisions to protect their activities, identify, classify, and evaluate cash resources that may be suitable for the company, define digital economic scenarios, and define and protect liquidity elements in modeling the predicted financial effects of profitability. (Ilhami, 2019) In terms of financial sustainability, companies must maintain business continuity by digitally connecting with their customers, understanding and supporting their employees, developing solutions to supply chain challenges, building digital capabilities, and connecting with other businesses in the same ecosystem. In doing so, companies should aim to get out of this process unscathed, retaining both employees and customers. Digital visibility and the use of online sales channels have come to the fore in this area, and companies that can serve their customers with this sales channel have continued their business. (Reyhan, 2012; Taşdemir, 2014)

The article examines the following nuances:

1. Investigate the selection, training, and motivation of personnel for the digital economy;
2. To determine directions for improving the process of selecting personnel for the digital economy;
3. Investigate ways to strengthen staff potential;
4. Explore the role of personnel in the digital economy;

But how has the work process of personnel changed during the use of digital economy application programs? (Terhan, 2019)

The process that started with digitization and rapidly progressed toward the digital revolution reveals very significant changes in economic, social, and cultural structures. The phenomenon of digitization affects and changes the economic structure, production method, job and workplace

definition, and labor markets on the one hand, and at the same time shapes social life and cultural structure at a modern level. Central to these effects is the role that technology plays in data collection, storage, exchange, and use. (Marchington, 2016)

Digital technology has particular power because it improves the organizational, analytical, and managerial aspects of the production of firms and workers, creating value and reducing the importance of other work. In this context, digital technology has emerged as the most important driving force of today's economy. Although this situation greatly impacts workplaces and disrupts established business practices, it has the power to greatly improve information management and rule-based operations in workplaces. (Nur, 2016; Sabuncuoğlu, 2012)

Digitalization can be considered the main feature of the modern era due to the changes it has brought about in the field of economic, social, and cultural structure. While digital media is now at the center of global capital flows, digitization has spurred the convergence of disparate sectors. The biggest impact of information technologies and the digitalization process is seen in the economic structure. (Simon, 2011) While the phenomenon of digitization creates new jobs and new professions with technological innovations, work and work-related organizational structure, job instructions, and competencies, the spatial dimension of production of goods and services, production method, production process, marketing network, way of reaching produced goods and services, consumption concept, etc. it rapidly changes many things, in short, the economic structure. The revolution caused by this change is characterized as the fourth stage of the industrial revolution. (Susan, 2018)

The main goal of the "digital economic revolution" is to implement smart sales networks that can reflect the activity. The new process is based on highly automated forms of work, where human labor is used the least, but the highest labor productivity is achieved.

Although information technologies that have been developing since the last quarter of the 20th century have changed economic structures and work life, the digitization process that began in the 2000s has given a different speed to this change. Digitization is changing all business processes in general, in addition to increasing automation and changing work processes. (İlhami, 2019)

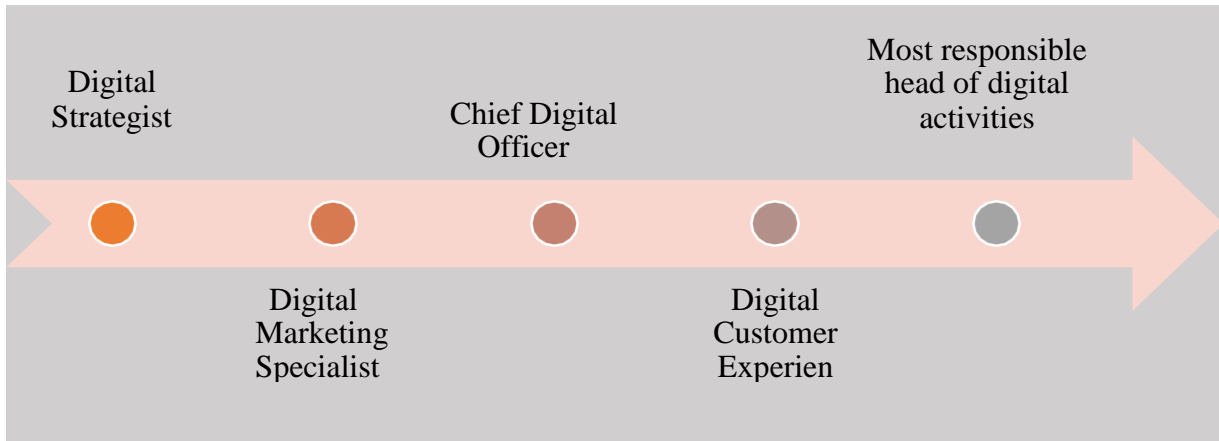
## **METHODOLOGY: ANALYSIS OF THE WORK PROCESS OF PERSONNEL IN THE DIGITAL ECONOMY**

The change in organizational structures with the introduction of digital technologies requires a customer-oriented strategic work schedule. Indeed, digital transformation requires the creation of a core competence and mainly focused directly on the customer, so that the organization can better cope with the change in general. Therefore, the digitization of data, processes, and roles that make up the activity of an enterprise, brings about the digital transformation of business and business strategy, and at the same time leads to a change in the business model.

Thus, this period, which begins with digitization and continues with the digitization of work life, reveals the digital revolution, at the same time it leads to the expansion of the service sector, which leads to the disappearance of many professions.

The process of digital transformation is also changing company management and organizational structure. For example, at the management level is the "Chief Digital Officer" or CDO (Chief Digital Officer) for short, who may work under various titles such as Digital Strategist, Digital Marketing Specialist, Digital General Manager, or Digital Customer Experience.

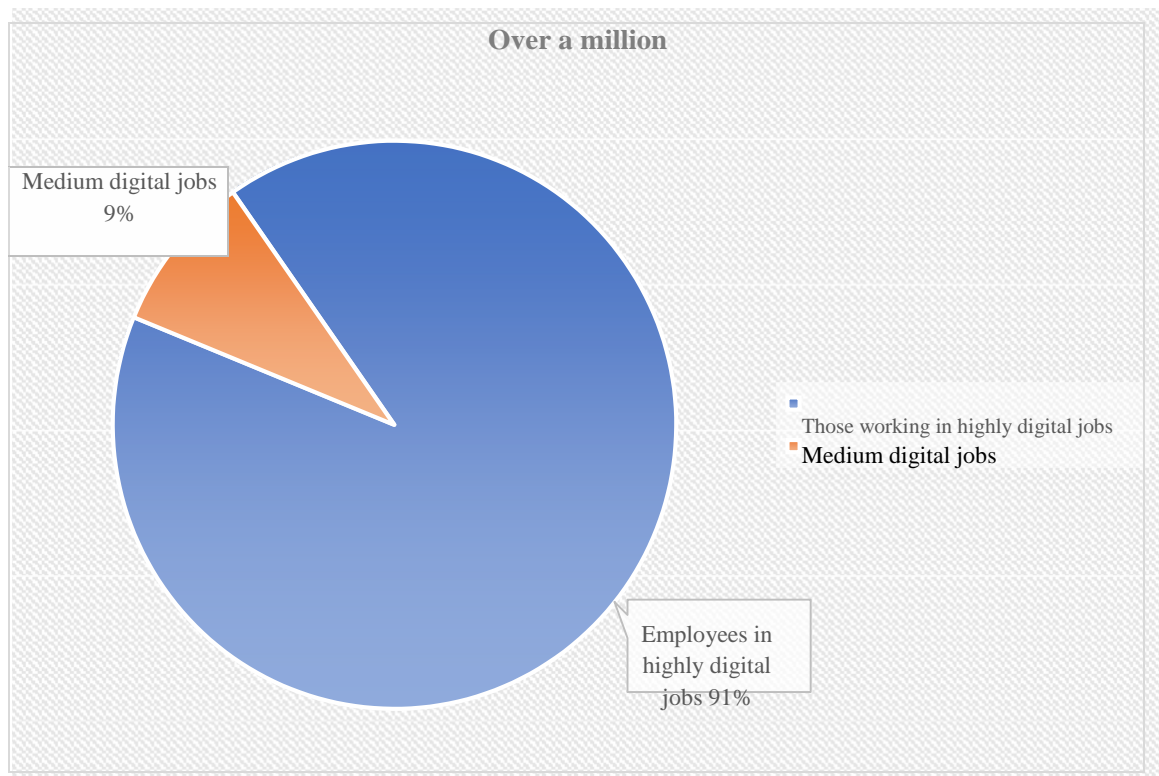
**Figure 1:** Organizational structure in economic digitization



Compared to 2020, employment in occupations with high digital content is seen to increase from 5.4% to 27% in 2022, and from 40.2% to 51.3% in occupations with medium digital content ([http://www .erctr-az.gov-economic](http://www.erctr-az.gov-economic)). On the contrary, the level of professional employment among personnel with low digital content fell from 55.7% to 21.1%.

In absolute terms, more than 32 million workers work in highly digital jobs, and about 66 million work in medium digital jobs.

**Figure 2:** Indicators of playback in digital working conditions



In line with these trends, digitally oriented-professions have greatly supported business transformation and creation in the past few years.

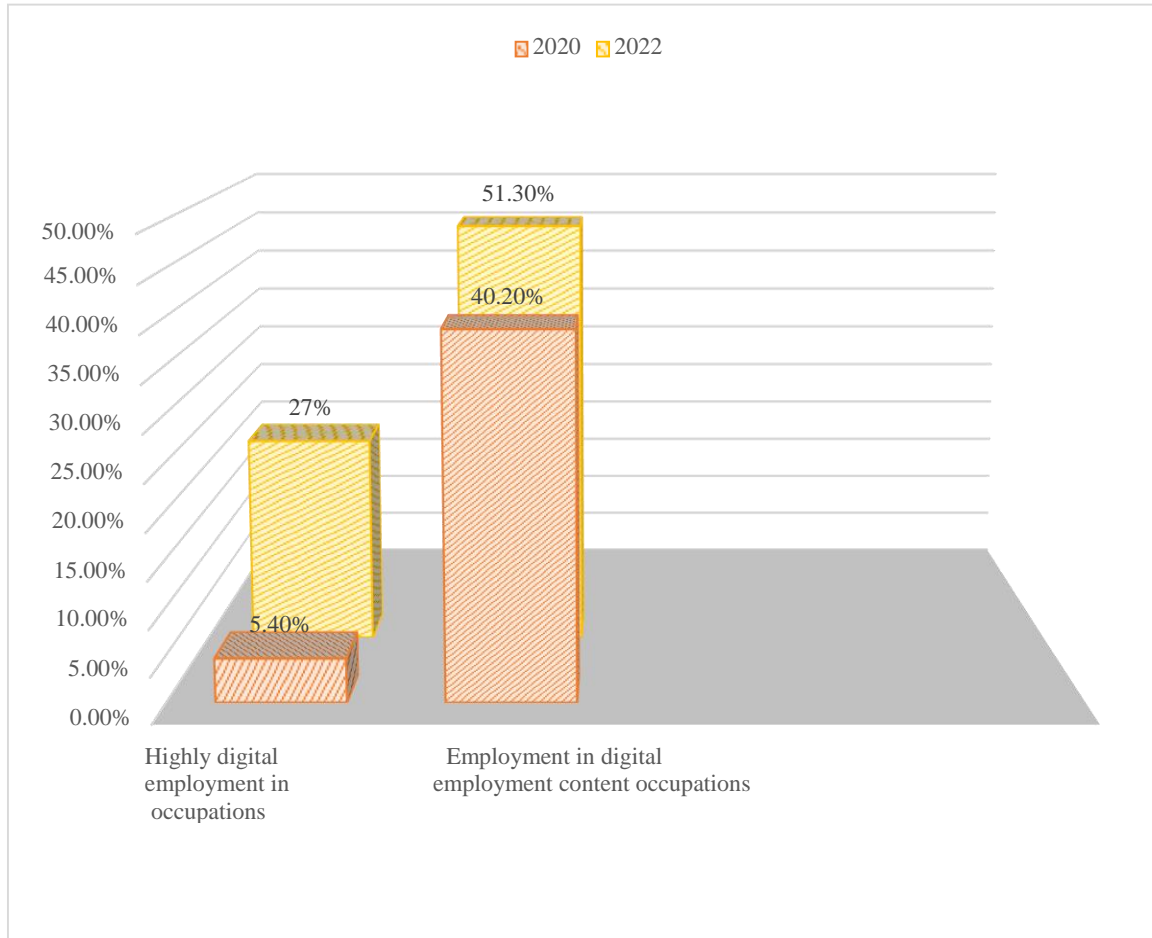
Specifically, of the 13 million new jobs created in the country since 2010, nearly 4 million require high-level digital skills, and nearly two-thirds of new jobs require either high or medium digital skills.

With the digital transformation process, even when the work hours are over, employees can access e-mail or other social networks while at home or on vacation. This takes working time beyond the concept of overtime. In addition, this situation causes adverse effects on employees. Employees who have to check and respond to their e-mails outside of working hours are said to cause stress, exhaustion, sleep problems, and relationship difficulties, in addition to not being paid extra for these working hours.

Against this situation, it is recorded that trade unions have started to make special provisions regarding their collective agreements, and even in France, laws on this issue have already been prepared. Another dimension of digitalization of working life is the topic of "artificial intelligence" and robotic technologies. For example, automated teller machines in the banking sector and robotic arms used in various factories, especially in the automotive industry where human muscle power is stressed, have long replaced manpower.

What is new is the acceleration of the use of "artificial intelligence" and robots in smart companies, banking, healthcare, and many other areas that have emerged with the digital revolution, the creation of scenarios, and the intensification of discussions.

**Figure 3:** Professional employment of personnel



Academic research in recent years has shown that thanks to digitalization, individual workers can quickly see the nature and rewards of job change. Therefore, the spread of digital technology tends to have a significant impact on workers, firms, industries, economic and trade relations, labor markets, and entire regions. Important studies of labor markets in the 1970s, 1980s, 1990s, and 2000s show that workers who use computers at work earn more.

Based on our research to identify digital workforce competencies, we can divide digital workforce competencies into three groups:

1. Professional skills and information technology knowledge: This includes interpersonal skills, reliability, adaptability, critical thinking, lifelong learning, innovation, general communication, problem-solving, teamwork, information technology, mathematics and science, information law, and ethics.

2. Information technology management and support: This includes digital marketing, information technology risk management, digital communication, information support, project management, and basic business knowledge.

3. Technical knowledge of information technology: This includes mobile technology and application, hardware/network, software applications, databases, English language skills to use information technology applications, basic information technology knowledge to conduct business, etc. belongs to.

## **DISCUSSION: INNOVATIVE METHODS IN PERSONNEL SELECTION FOR THE DIGITAL ECONOMY**

The development of the digital economy, technological development, and demographic changes have a significant impact on the business world. It also affects the number, quality, and implementation of existing megatrends, and the skills workers will need to succeed in the competitive environment of the future. Although the timing and pace of this development will vary between countries, growth in the labor market is expected to affect both developed and less developed countries. In line with these changes, it is becoming increasingly important to ensure that employee competencies are effectively matched to labor market requirements.

In recent years, rapid technological changes, the introduction of new digital innovations in the production process, digitization of production and service areas, and initiatives such as, have begun to focus on work areas to attract talented employees with digital skills and information technology. Empirical evidence presented in a report published by the Organization for Economic Co-operation and Development suggests that the current labor market and economic changes have created a major imbalance between skills and supply. There is a great need for computer and electronics (knowledge and software, programming, and use) knowledge and decision-making skills in OECD and European Union countries. For this reason, businesses have difficulty finding employees with the necessary competencies to use new methods and work with new technologies. Based on the research, we can say that according to the Organization for Economic Co-operation and Development report, the new competence requirements that appear as a result of the increased use of digital technologies in the workplace and are considered necessary are divided into three dimensions:

1. General information and communication technology skills: This includes having general information and communication technology skills, such as accessing information online or using applications that can be used in everyday work life.

2. Specific information and communication technology skills: This includes programming, application development, and network management of products and services such as software, web pages, e-commerce, mathematical computing, and big data.

3. Complementary information and communication technology skills: Includes complementary skills such as processing complex information, communicating with colleagues and customers, solving problems, planning ahead, and quickly implementing a plan.

Effective and Innovative Employee Selection Methods.

Why use something like social media profiles to investigate selection decisions when there are more accurate ways to assess the skills and suitability of job applicants? The main reason for this may be related to the number and type of selection tests available. In this case, it is very important to choose the most suitable, innovative method for the work process. These include:

#### 1. General Mental Ability

It is the best tool for employee selection. This approach is highly effective in predicting future performance in every type of business, at all job levels, and in every industry. General Intelligence can be assessed in a variety of ways, from 30-minute paper-and-pencil tests like the Wonderlic to more expensive online computer aptitude tests. Both computer-based and paper-and-pencil tests are equally valid, allowing organizations to choose the most appropriate approach.

#### 2. Structured Interviews.

These are not standard interviews that start with "So tell me about yourself...". In structured or behavioral interviews, applicants are asked a series of specific, predetermined, job-related questions, and their answers are evaluated against detailed criteria. A "report panel" approach is often used here, where 2-3 trained managers ask questions and collect each response individually. After the interview, their ratings are compared to determine the consistency or reliability of structured job interviews. When responses are judged to be inconsistent, the interviewers discuss their basis and reach a consensus.

#### 3. Situational judgment tests.

These tests are described as the multiple-choice equivalent of structured interviews. With this method, applicants are asked to choose how they would respond to various hypothetical situations related to the target job. The results indicate how that applicant will behave when faced with certain situations and decisions. The ability to predict how applicants will respond to complex decisions makes this method one of the best approaches for managerial and technical positions.

It is important to note that the combination of multiple tools or methods greatly improves the predictive validity of the recruitment process. For example, combining General Mental Ability tests with structured interviews will be more effective than using either alone. In addition, using any of these three methods is preferable to evaluating applicants' resumes and giving unstructured interviews or unvalidated pretests.

There are countless tools, methods, and approaches to making the right choices about decisions. However, based on decades of applied organizational research, the ones described above are the most successful, accessible methods for finding them. It is important to note that other valid methods are intentionally left out.

Human resources professionals who have direct responsibility for their employees must be prepared for these innovative human resources principles. If HR professionals can adapt to new roles, they can meet work-related demands and employee needs while gaining competitive strength.



Therefore, it can be said that human resource professionals and managers need to develop and expand their talent management approaches. As these approaches are developed, they need the ability to access innovative workforce models and alternative labor resources, modify selection criteria, and create age-appropriate contractual arrangements 58. In addition, new training and development models, as well as new motivation tools, must be prioritized to retain this workforce.

Implementation of personnel selection with such innovative methods will increase the work potential and will positively affect the future destiny of the company.

## **CONCLUSIONS**

In conclusion, we must note that it is a well-known issue that the debates about the effects of the digitization process on work life or the digitalization of work life will intensify in the future, and research on this topic will create a certain wealth of literature.

Although digitization is an extremely important trend, there is some uncertainty about where this process will lead. Therefore, it is too early to describe this process as a transformation. Because this process is still ongoing and subject to various changes. In recent years, studies on the effects of the digitization process on work life have been characterized by more employment aspects of the issue. Some of these are predictions about the future.

Since HR performance evaluation was first studied, the most interesting and sought-after aspect of HR transformation has been the individual and organizational benefits. The studies provide an overview of the implications and benefits of digital HR. While digital ICT increases the engagement, competence, and harmony of employees individually, it reinforces ICT investments in an organizational context in terms of:

- Reorganizing ICT activities;
- By increasing the quality and efficiency of ICT services;
- By turning ICT functions into a strategic business partner, as well as providing benefits by reducing costs.

Performance appraisal systems supported by information technology provide ideal usability and increase success, especially for performance appraisals based on very different data sources, such as the balanced scorecard.

The digital transformation and therefore the process characterized as the fourth industrial revolution must be further developed to explore the topic in depth in different dimensions.

In other words, to assess the impact of the digital transformation process on work life and industrial relations, including employment, it is necessary to keep work life to some extent "fixed" with possible economic, social, and cultural structures.

We can make the following suggestions regarding the selection, training, and motivation of personnel for the digital economy:

1. Preparation of a new strategic plan;
2. Taking measures to increase motivation among employees;
3. To use world experience in the digital economy;
4. Using the methods acquired by foreign companies in our country to conduct experiments in the innovation system, etc.

Considering all these proposals, taking measures for innovative progress in this field will not only accelerate the development of companies but also affect the economic dynamics of the country.

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