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## THE ROLE OF DIGITAL TRANSFORMATION IN OPTIMISING HUMAN CAPITAL MANAGEMENT AND ORGANISATIONAL CULTURE

**Abstract:** *The study aims to analyse the impact of digital transformation tools on optimising organisational culture and increasing the efficiency of human capital management. The need to update the company's internal management in the direction of distancing, automation, use of chatbots, cloud technologies, real-time data, and the application of B2B and HR programs, the use of artificial intelligence tools, data integration, and the formation of a new type of corporate culture oriented towards creativity and critical thinking is justified. It was found that digital optimisation of human capital management and organisational culture allows the automation of routine processes of collecting, accumulating, processing, and transmitting information and reporting, increasing the accuracy and speed of communication operations and improving corporate interaction processes. It is proven that such measures will help reduce resource costs and realise innovative opportunities, ensuring companies' effective corporate interaction and omnichannel efficiency in the market environment.*

**Keywords:** *transformation, organisational culture, human capital, management strategy, digital technologies, communication.*

### 1. Introduction

Ensuring the effective functioning of companies, improving productivity, and achieving economic efficiency requires increased competitiveness, innovative development prospects, implementation of the latest practical management tools, and development of measures that could ease adaptive processes in conditions of heightened competition.

In light of global digital transformation processes, the leaders of most organisations recognise the importance of optimising the traditional approach to organisational culture and human resource management, as the labour market is transforming in many

aspects. The management system dynamics occur against the backdrop of active implementation using neural networks to minimise the time and resources spent on personnel selection. Chatbots, video content, and online communication are often used for interviews.

Adapting organisational culture to the requirements of innovative development is progressing toward digital modernisation of companies' internal corporate communication, including using artificial intelligence and digital tools, such as chatbots, service programs, mobile applications, digital archives, and behaviour analysis.

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With substantial support for Ukraine from the international community, there is potential for attracting investment resources for integrating socio-economic, military, and digital innovations, which requires the development of strategies and proactive action plans for the digital development of human capital and the organisational culture of companies. According to forecasts by the Ukrainian Institute for the Future (2024), Ukraine's development strategy until 2035 envisages two scenarios for the progress of Ukraine's digital economy – evolutionary and accelerated. The large-scale war identifies the direction of digitalisation as accelerated, highlighting the relevance of the research topic.

## **2. Literature review**

The analysis of scientific works and publications by contemporary domestic scholars, such as Hrishnova and Markovets (2024), Kravchuk (2024), Svatiuk et al. (2022), Lypych et al. (2023), suggests that the Ukrainian information technology sector is proactive. The majority of companies, amidst current socio-political transformations, have activated digitalisation processes, adapting their human capital management strategies and organisational communication culture to meet the demands of the new economic reality.

Among the array of scientific research results, it is worth highlighting the works of scholars (Nemchenko & Kovalenko, 2024; Kantsur et al., 2023; Komelina, 2022; Mazur & Kis, 2024; Doroshenko, 2024), which fundamentally justify the potential of artificial intelligence and cloud services in the context of human capital management and organisational culture effectiveness. Studies on the dynamics of the impact of digitalisation on personnel policies and their effectiveness are dedicated to the works of Horbanova (2024), Basulo Ribeiro et al. (2023), Novikova and Azmuk (2023), Isensee et al. (2020), Salvadorinho et al. (2025) and Lazebynyk (2022).

At the same time, some researchers (Grigorescu et al., 2021) draw attention to the issue of assessing the quality of organisational culture and its corresponding correlation with the financial results of companies' activities. Several authors (Proksch et al., 2024; Grover et al., 2022) have developed a hub of technological digitalisation tools and electronic document management in organisational corporate culture. Despite the significance of researchers' scientific and practical achievements, there is a need to expand scientific research on the potential of digital transformation tools in the studied context.

This study aims to analyse the impact of digital transformation tools on optimising organisational culture and improving the efficiency of human capital management.

## **3. Research methods**

The theoretical and methodological basis of the research is positioned within the paradigm of organisational theory, concepts of strategic management, and organisational change management. General scientific methods were used in the research process, including the structural-logical method for developing the concept of improving the paradigm of human capital management and organisational culture of companies; analysis and synthesis for clarifying the terminological framework, highlighting theoretical approaches to managing the digital transformation of organisational and personnel policies of companies in the context of digitalisation, determining the structural-functional specifics of impact, and forming the overall optimisation of the studied area of company activities; concretisation for the systematisation of conceptual approaches to the transformation of organisational culture in enterprises, identifying related risks and obstacles.

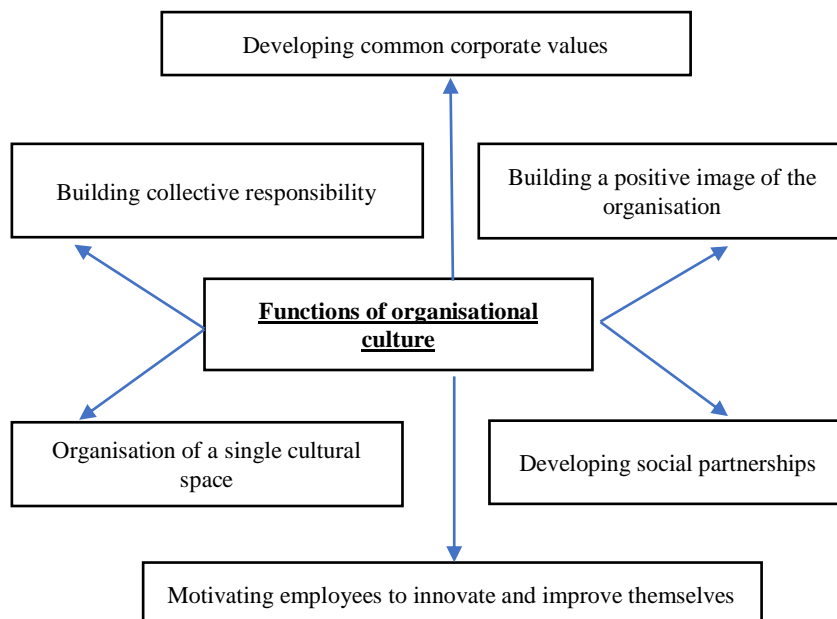
#### 4. Results

The concept of human capital encompasses a wide range of intellectual, spiritual, cultural, and physical qualities that directly or indirectly influence the dynamics of the labour market. In light of digital transformation, human capital is realised through the practical execution of operations and control based on the partial virtualisation of processes.

The definition of organisational culture includes most processes and phenomena of

the spiritual and material life of the team, including the prioritisation of norms, values, and priorities, behavioural norms and corporate requirements, traditions and rituals, as well as established product or service quality standards implemented by the company. Organisational culture forms the basis for adapting new employees and shapes the philosophical foundation of the management paradigm and the organisation's development strategy.

The functionality of organisational culture is shown in Figure 1.



**Figure 1.** Functionality of Organisational Culture in Management

Source: author's conception

Scholars' analysis of scientific research results represents four main ways to form organisational culture. These include:

- development through the efforts of the organisation's leadership;
- long-term practical testing;
- artificial formation by consulting organisations;
- natural selection of optimal norms and standards developed through the

synergy of interaction between the leader and the team.

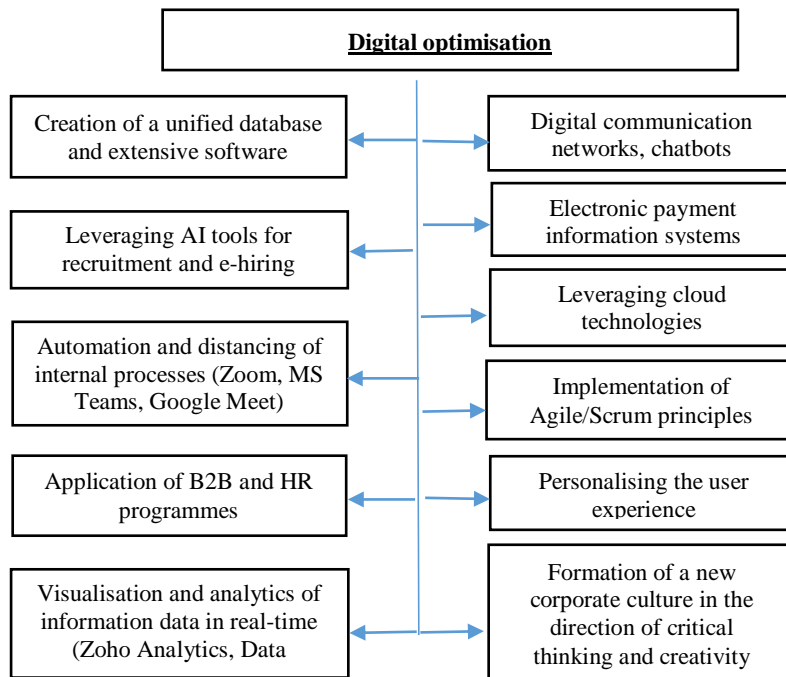
The primary characteristics of an effective digital optimisation system for managing organisational culture and human capital include systematisation, efficiency, flexibility, balance, and risk minimisation. Critical principles for forming a digitalisation model are preventive strategic orientation and continuous development, a multi-component

operational system structure and the creation of practical tools, adaptability to modern technologies, and innovative means of working with large amounts of information.

In 2021, the European Business Association, supported by “Huawei Ukraine” and SAP Ukraine, formed the Digital Transformation Index based on data analysis from 130 company directors who are members of the European Business Association. It was established that the integral indicator of Ukraine’s Digital Transformation Index across five key aspects was 2.81 out of 5 points (Digital Transformation Index, 2021). The principal investments of companies were in the digitalisation of customer interaction processes (75%), data analysis (55%), and employee interaction management (48%). 65% of respondents viewed cloud solutions as a new technological opportunity to optimise IT infrastructure costs, and 81% considered implementing electronic documentation services potentially advisable (European

Business Association, 2021).

Any decision in analytical and informational activities usually significantly differs from established practices. Consequently, its implementation requires participants in the system to transform their expected knowledge and qualifications, actively embrace innovations, find solutions to emerging issues, and effectively implement them in the production process. In this case, there is a need to optimise the company’s internal management, allowing for the automation of most internal processes, distancing some of them, and forming a new type of corporate culture. This process should be continuous and positioned as a long-term priority, initiating positive dynamics of transformations within the enterprise and stimulating its constant self-development. The general structure of the digital optimisation of organisational culture and internal corporate communication of enterprises is reflected in Figure 2.



**Figure 2.** Digital Optimisation of Organisational Culture and Human Capital Management  
Source: author’s conception

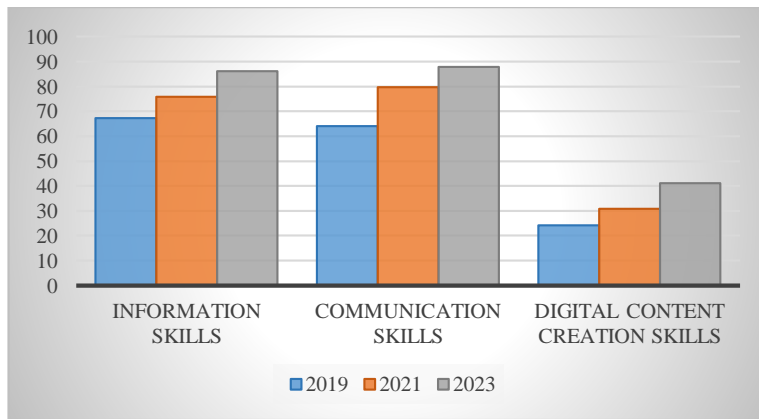
Critical principles for forming a digitalisation model include preventive strategic orientation and continuous development, a multi-component operational system structure, the creation of practical tools based on it, and adaptability to modern technologies and innovative means of working with large amounts of information.

As shown in Figure 2, the prospective advantages include personalising user experiences, increasing the speed of information processing through interaction with chatbots, analysing large volumes of data and their statistical processing, and transforming organisational culture towards creativity, critical thinking, mobility, and the implementation of Agile/Scrum principles that promote a flexible and team-oriented work system. Using B2B and HR programs can significantly enhance the efficiency of informational and economic interactions

within internal communication processes. Modern programs like Zoho Analytics and Datawrapper enable the acquisition of large datasets in the form of visually perceptible diagrams, charts, and tables, which considerably speed up the information processing (Proksch et al., 2024; Grover et al., 2022).

The level of digital skills among Ukrainians tends to increase. According to a study by the Ministry of Digital Transformation (2023), there is a noticeable dynamic in digital skills among the working population when comparing data from 2019–2023 (see Figure 3), providing a foundation for further digitalisation of human capital management processes and the formation of a digital concept of organisational culture within companies.

The most popular digital systems in human capital management are presented in Table 1.



**Figure 3.** Dynamics of Above Average Digital Skills among the Working Age Population in 2019-2023, %

Source: compiled by the author based on (Ministry of Digital Transformation, 2023)

**Table 1.** Digital Technologies in Human Capital Management

The purpose of digital technology	Features	Sample digital system
Electronic recruitment of staff	Use and integration of internet technologies for recruitment: automated internet search, automated CV scoring, introduction of chatbots for communication	<b>LinkedIn:</b> Creates specific job postings on corporate websites, allowing employers to receive information from qualified candidates from around the world remotely

**Table 1.** Digital Technologies in Human Capital Management (continued)

The purpose of digital technology	Features	Sample digital system
Electronic training	Virtual staff training programmes	<b>Edx.org, Udacity.com, Coursera</b> and many others: affordable, adaptive and comfortable interactive continuing education courses anytime, anywhere
Electronic labour management systems	A tool for improving the efficiency of investments in the company's human capital, which increases the speed of business processes and labour productivity.	<b>HRM (HumanResourcesManagement):</b> an electronic database for storing and retrieving information on work performed, salary data, information on the knowledge and skills of all employees, etc.
Electronic payrolls	Contains information about employees' working hours, tax data, etc., which increases the company's key performance indicators and competitiveness	<b>WayForPay:</b> a tool that provides a payment solution for online companies with small and medium payment turnover.

Source: author's conception

Among the main promising directions of digitalisation, the following should be noted:

- creation of a digital operating model for implementing the company's development strategy, which should include organisational structures, principles, processes and performance indicators, design elements (control and alignment mechanisms, customer experience, proposition, ecosystems);
- digital communications for prompt information transmission, effective interaction in multitasking conditions, and expanding the boundaries of responsibility;
- digital leadership: formation of a digital organisational culture system by the management based on effective interaction of all employees, corporate values, and feedback;
- digital human capital: integration of corporate business applications and services, centralised collection of analytical data and visualisation of reports, and remote work, which overall increases personnel mobility, security, and manageability (Report

“Vision 2035. Project Ukraine 2.0”, 2024).

## 5. Discussion

Several scientists (Strohmeier, 2020; Varadaraj & Al Wadi, 2021; Ziaei Nafchi & Mohelská, 2020) actively study the researched issue. They investigate the contribution of digital human resource management to company organisational effectiveness and see the main positive consequences as high speed, minimising the risk of data loss or unauthorised use, and saving time and resources. Some scientists (Ribeiro-Navarrete et al., 2021) believe that the transformation of the labour market requires the digitalisation of traditional labour market structures and recruitment.

Researchers Zhou et al. (2021) and Gadzali et al. (2023) analyse the impact of the digitalisation of HRM on company productivity, emphasising the functionality of headhunting companies that specialise in human capital recruitment. Scientists see a promising human resource management strategy in organisational digital transformation using cloud services, digital recruitment, and artificial intelligence.

Furthermore, Margiono (2021) identifies two paths of digital transformation: the offensive path, which is aggressive and involves the rapid acquisition of digital resources through portfolio investments and merger and acquisition tactics, and the defensive path, which is relatively slow and relies on the organic growth of digital capabilities within existing companies over time.

Researchers in current research areas (Nicolás-Agustín et al., 2022; Sadegh & Parchami Sarghein, 2023) identify factors forming corporate governance in international joint ventures based on the experience of joint investments: data synergy, financial capabilities, and the level of intellectual resources. Some researchers (Charness & Grieco, 2023; Vardarlier, 2020) position digital applications and strategic tools in HRM as priority factors influencing the formation of the organisational and personnel structure of the company in the context of creativity and productivity. However, the practical implementation of digital transformation of organisational culture and personnel policy of companies in response to the challenges of global digitalisation remains fragmentarily studied.

## 6. Conclusion

The electronic optimisation of human capital management and organisational culture

allows for automating routine processes related to collecting, accumulating, processing, and transmitting information and reporting. Additionally, digitalisation tools enhance the accuracy and speed of communication operations and facilitate corporate interaction processes.

The modern development of information technologies, artificial intelligence tools, and digitalisation enables the development and implementation of customised solutions for optimising the researched sphere of company operations. The proposed model of digital optimisation of organisational culture and human capital management in companies includes updating the company's internal management towards remote working, automation, integrating artificial intelligence tools, data integration, and forming a new corporate culture. It involves using chatbots, cloud technologies, real-time data, and B2B and HR programmes. These measures will reduce resource costs and realise innovative opportunities in synergy, ensuring effective corporate interaction and omnichannel efficiency. Future research should thoroughly study the technologies for integrating digitalisation and artificial intelligence tools with communication processes in organisational activities and develop a cyber protection system to ensure the security of confidential data.

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