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Research Article

Management's Influence on Digital Transformation and Enhancing Workforce Professional Growth

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ABSTRACT

Introduction: In modern society, digital literacy and competencies are gaining dominant importance, significantly impacting economic growth, professional activity, and the competitiveness of companies. The article discusses the role of management in the context of the digital transformation of the economy and highlights the obstacles hindering the implementation of HR Tech technologies.

Objectives: The study aims to identify marketing and management development specifics in the digital economy.

Methods: A combination of theoretical and empirical methods was used to solve the tasks set, including analysis, synthesis, theoretical modelling, and generalisation of materials presented in scientific literature and specialised databases on the researched problem.

Results: The advantages of automating learning processes are demonstrated, and the role of the personnel development manager in this context is examined. The role of the Training and Development (T&D) manager, responsible for continuous employee training and developing their professional skills and knowledge, is described. This, in turn, contributes to the organisation's achievement of set goals and more effective utilisation of employee potential. The manager of the digital era plans training manages the budget, selects suitable courses and programmes, evaluates employee professional development, develops tools for automating training, builds a talent pool, and regulates processes in human capital resource management.

Conclusions: Thus, it is important to note that modern technologies play a vital role in effectively managing human resources, and their use is becoming an integral part of a successful business. In modern society, digital literacy and competencies are gaining dominant importance, significantly impacting economic growth, professional activity, and the competitiveness of companies.

Keywords: competitiveness, digital transformation, automation, manager, personnel development, training, information society, information technologies.

INTRODUCTION

The formation of the information society theory, where the production of information resources becomes more significant than the production of material values, began in the 1970s and 1980s. In the 1990s, information dominance as the driving force of economic development led to the global integration of national economies into the

world community. These factors indicate the emergence of networks on both a local and global scale. One of these global networks is the Internet, which creates an attractive information and communication environment for the successful functioning of the new economy. Accordingly, the economic activities of businesses and their business models are being transformed [1]. Although the digital economy remains a critical factor in economic development today, its growth is still determined by the effective implementation of new information technologies. Digitalisation continues to develop, transferring all information and societal environments into digital format and ensuring its transmission through various media.

The concept of a company's "information profitability" emerges, which involves an organisation's competent use of information to achieve strategic goals [3]. These goals are achieved by integrating the company's information technologies with the opportunities provided by the Internet. Continuous improvement of its activities through introducing technological innovations becomes most effective, spreading the concept of "learning by doing," aimed at constant innovation and gaining competitive advantages for companies [3].

In the post-pandemic era, the most significant emphasis is placed on digital transformation within companies, as the digital literacy of employees is critical to business success and flexibility. In addition, managers must promote employee engagement, collaboration, and connection, helping them perform their work while developing digital skills and literacy. The level of employee satisfaction can be highly dependent on interpersonal interaction [4].

LITERATURE REVIEW

The concept of a learning organisation, described by [5]. It was based on the idea that employees' professional development includes two elements: organisational and individual learning and the assessment of employees' abilities. Managers who undergo professional training within or outside the organisation acquire new knowledge. However, this does not necessarily mean that the organisation acquires this knowledge, as the employee may, for various reasons, choose not to or be unable to use it in that company. According to [6], entrepreneurs need training programmes, mentoring, and advice from experienced predecessors for successful business management.

Experts from Moody's Rating Agency believe that the implementation of robotics will help solve demographic issues in the labour markets of Western Europe and Japan (with an increasing proportion of the population over the age of 65 and a shrinking workforce percentage) [7]. China, South Korea, and the United States are also among the leaders in implementing industrial robots. In all three countries, life expectancy is increasing, and the introduction of robotics is expected to mitigate the effects of the demographic crisis. Researchers from the University of Oxford suggest that 47 % of professions in the US are vulnerable to automation [8]. As a result of this study, the US Council of Economic Advisers concluded that 83 % of jobs paying less than $20 an hour will be automated.

At the beginning of 2021, a study was conducted [9] that assessed the application of digital technologies in various sectors and activities of Ukrainian companies. The survey involved 50 organisation leaders from different sectors of the economy. The study found that the highest level of digitalisation was observed in the banking sector, followed by retail, telecommunications, automotive, and consumer goods sales. It is important to note that all sectors and industries depend on effective human resource management processes [10].

In 2024, digitalisation through automation of work processes continues to bring many benefits [11]. It ensures more efficient interaction between organisations and the external environment, improves internal operations within companies, and stimulates the development of employees' digital skills and their application in work activities. HRTech industry products are actively implemented in HR departments [12].

Modern digital technologies in employee training and development are not limited to online learning alone [13]. In recent years, EdTech, a set of digital tools that adapt the learning system to specific tasks, has been introduced [14]. These tools make learning more personalised and comfortable by using artificial intelligence and feedback [15].

The study aims to identify marketing and management development specifics in the digital economy. The article identifies the most significant management trends and their impact on staff professional development.

METHODS

A combination of theoretical and empirical methods was used to solve the tasks set, including analysis, synthesis, theoretical modelling, and generalisation of materials presented in scientific literature and specialised databases on the researched problem.

RESULTS

There is a growing need for new approaches and tools that combine modern methods to address organisations' business challenges in employee training effectively. It is important to note that in 2022, under the influence of events from 2020 (such as the COVID-19 pandemic), the processes of modernisation and automation in the field of human resource management accelerated, primarily affecting staffing decisions [16]. In 2023, the direction of HR processes, such as employee training, remains critically important, as it directly impacts the company's productivity and the overall quality of all business processes. However, if many organisations continue to shy away from automating the training process in the context of the digital transformation of the economy, they may face the following challenges:

1. Slowed influx of new knowledge. The organisation's response time to environmental changes, new goals, and tasks can significantly increase. The absence of an efficient system for training and retraining employees may lead to missed opportunities.
2. Ineffective control and evaluation systems. The learning process becomes less efficient without automated systems for controlling and assessing employee knowledge. Organisations may face difficulties in measuring the success and progress of training.
3. Negative attitude towards training. The lack of modern training methods and the inability to access various educational resources may create a defeatist attitude among employees towards the learning process.
4. Lack of training effectiveness analysis. Organisations may lose the opportunity to analyse and improve the effectiveness of their educational programmes. A lack of data on training outcomes may lead to insufficient personnel adaptation and development.

Therefore, the market is seeing the active development of startups offering various technologies and training systems. Here are a few examples of such innovations:

1. Creator's platforms. These platforms provide tools for collaboratively creating diverse educational content. Users can develop animated videos, online courses, and other learning materials tailored to the organisation's specific needs and competencies.
2. Performance management systems. These systems integrate the necessary competencies and key performance indicators with assessment and feedback processes. They help evaluate and manage employee performance and align their work with the organisation's expectations.
3. Voice of the employee tools. These multifunctional tools are designed for training and personnel management. They allow the collection of employee feedback, tracking their engagement levels, and addressing learning issues, ensuring flexible adjustments to educational content. One of the leaders in this field is the Glint platform.
4. Learning Experience Platforms (LXP). These platforms provide tools for selecting and recommending educational materials.

They allow organisations to create a unified learning system and provide access to training activities through a user-friendly interface (Figure 1). Participants can interact online in real-time, get answers to questions, and view event recordings. These innovations are essential in transforming the learning and personnel development industry, making it more efficient, personalised, and accessible. For example, Forte Bank uses a remote learning system that enables employees to improve their professional and personal skills independently. Digital onboarding is also used for new employees, including mandatory courses and adaptation stages on the remote learning platform, which facilitates faster adaptation and enhances the comfort level among newcomers. Additionally, gamification is increasingly used in corporate training, which helps integrate learning into employees' work tasks, increasing their motivation and engagement. Research shows that gamification contributes to the increase in enterprise productivity and, as a result, revenue growth [17].

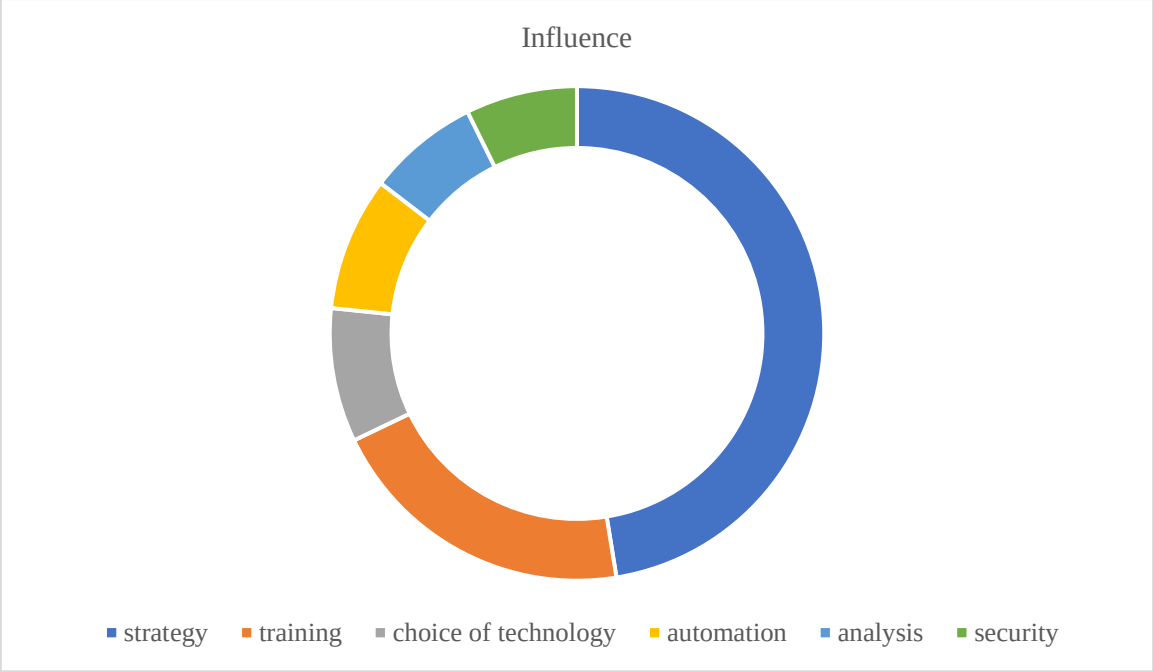

Figure 1. Seven Key Benefits of Digital Transformation and Their Impact on Employees [17]

Mobile marketing holds a special place in digital technologies. According to studies, the number of mobile users in the Ukrainian Internet segment has, for the first time, exceeded the number of desktop users: 54 % – desktop, 46 % – smartphones, 19 % – tablets, and 10 % – smart TV. Another trend in marketing development is the growing role of video and augmented reality technologies. The reasons for video content's popularity are as follows: visual content is processed 60,000 times faster than text; better ROI indicators; conversion rates are seven times higher when unique visual content is used; improved customer inclination to buy and recall commercial offers [18].

Thus, marketing in the era of the digital economy involves using new formats (due to low competition) and working with data (segmenting the database, creating lookalike audiences based on it, eliminating ineffective segments, and continuous testing). The trends mentioned above in marketing and management development in the context of the innovative digital economy necessitate tracking and recording consumer preferences and identifying purchasing behaviour patterns.

DISCUSSION

The digitalisation of business processes and entire industries in the coming decades will lead to the partial replacement of human labour by machines and the release of a significant portion of the workforce, creating new challenges for businesses and countries. At the same time, digital technologies and platforms will also have a noticeable positive impact on the labour market: they will facilitate the recruitment process, reduce job search times, increase employee productivity, and improve workforce engagement in the economy. Experts from the World Economic Forum have noted that current estimates of (future) global worker reductions due to digitalisation vary enormously – from 2 million to nearly 2 billion by 2030 [19]. According to a United Nations Conference on Trade and Development report, automation will first take away two-thirds of jobs from people in developing countries – among them Ethiopia, Nepal, Cambodia, China, and Bangladesh [20].

Table 1. Impact Assessments of Digital Technologies on Employment [21]

Organisation	Projected valuation
OECD	On average, the OECD predicts that 9 % of jobs will be at high risk of automation over the next five years. Low risk of full automation, but a significant share (50–70 %) of automated tasks are at risk
World Bank	Two-thirds of all jobs in developing countries are subject to automation
World Economic forum	Forecasts global job losses of between 2 million and 2 billion by 2030
International Organisation of Labour	ASEAN-5: 56 % of jobs at risk of automation in the next 20 years
Oxford University	47 % of workers in the US at high risk of job replacement by automation
Pricewaterhouse Coopers	38 % of jobs in the US, 30 % in the UK, 21 % in Japan and 35 % in Germany at risk of automation
McKinsey	States that 60 % of all professions have at least 30 % of technically automated activities
Roland Berger	Western Europe: by 2035, 8.3 million jobs will be lost in the industry, but 10 million new jobs will be created in the service sector
Klaus Schwab	Elimination of about 5 million jobs in the 15 largest developed countries by 2020

Source: Developed concerning [22]

Looking into the future, machines will replace many professions, as the market economy and growing competition require businesses and companies to constantly increase efficiency (see Table 1). According to "The Future of Jobs Reports", professions expected to disappear include data entry clerks, accountants and auditors, tax inspectors, postal workers, bank clerks, financial analysts, sales agents and intermediaries, brokers, cashiers, assembly line workers, car and van drivers, shop assistants, statisticians, finance and insurance specialists, and lawyers. Researchers have found that the risk of job loss due to automation is higher for men than women. According to PricewaterhouseCoopers, 35 % of professions typically held by men are at risk of automation, while the likelihood for women is only 26 % [23].

For the successful development of the digital economy, the education and retraining system must supply the economy with specialists who meet the specific demands of the digital era. There is an inevitable significant reduction in the number of applicants in specialisations that were popular in the 1990s (economic and legal profiles), as they are already being replaced by programmes featuring artificial intelligence, and this process will only intensify. Such specialists must receive comprehensive, versatile training that combines skills from various professions: economist, accountant, marketer, and lawyer in the fields of financial, tax, labour, and commercial law [24]. The demand in the labour market for qualified specialists in digital technology is being met thanks to the excellent quality of school and university training in the exact sciences. The presence of many talented young people is confirmed by the successful performance of Ukrainian teams in global student programming championships and international olympiads in mathematics and natural sciences [21].

Overall, digital technologies and innovations in learning and human resource management continue to develop and be implemented in organisations' business processes, improving their efficiency and contributing to the more successful development of employees. Virtual Reality (VR) has become an additional tool for training, especially in manual labour, and has already proven its effectiveness. Using VR systems in training allows employees to acquire professional skills by simulating work situations, including emergencies such as firefighting.

Another significant trend in learning is the "bring your device" (BYOD) concept, where employees use their smartphones and tablets to perform work tasks. Thus, automation in employee learning and development, using

modern technologies, continues to transform the workplace, setting new requirements for the speed and quality of work. In this context, organisations must automate work processes and develop learning teams using modern teaching methods [25]. Each scenario has advantages and can be successfully applied depending on the organisation's specific needs and goals [26]. In the field of human capital resource management (HR), there are several scenarios for addressing the shortage of digital specialists:

1. The "Buy" Scenario. In this scenario, the organisation hires professional specialists who already possess the necessary digital skills. This allows the immediate implementation of qualified employees who do not require additional training.
2. The "Borrow" Scenario. Here, the organisation develops training programmes for its employees to acquire digital skills. However, temporarily addressing current tasks can also bring in freelancers with the required expertise.

The "Build" Scenario. In this scenario, the organisation actively invests in developing its employees. It provides access to training and promotes individual employee growth through various practical learning tools. This scenario contributes to creating a competitive HR brand and increasing employee engagement [26], [27], [28], [29].

CONCLUSION

Training and developing organisation personnel is a continuous process of acquiring new knowledge and skills and assessing mastered competencies. Many large organisations have their educational centres focused on employee training. At the same time, educational institutions are adjusting their programmes to the changing market demands, offering a variety of continuing education and professional development programmes. Well-designed and completed professional development programmes increase labour productivity in an organisation, reduce staff turnover, and strengthen employee engagement in work processes. Training in new skills is often aimed at a broad audience, but a more practical approach may be the situational method, where individual training programmes are developed for specific employees.

Thus, in the future, employee training in organisations will continue to shift towards automation, utilising HR Tech. This will also include blended learning formats, where employees can access educational services from various devices, including mobile platforms. The main goal of staff training will be the transfer of necessary competencies and teaching the ability to apply the acquired knowledge. Properly selected methods and tools for training will motivate employees, attract new personnel to the organisation, and retain staff from transitioning to other companies.

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