

Digital transformation as a factor of changes in the organizational behaviour of international companies

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Abstract. Digitalization is an essential process for enterprises in the post-industrial economy, which contributes to increasing their competitiveness and opens up new opportunities for involvement in global digital value chains. Digitalization practice provides for developing recommendations and algorithms for overcoming and preventing errors within the scientific discourse, thus the aim of the article was to determine the impact of digital technologies on the organizational behaviour of international companies and generalize causes of digital transformation failure. Changes in organizational behaviour under the influence of digitalization have been systematized using the generalization method. The causes of unsuccessful digital transformations in organizations have been structured using the five-stage digital transformation model. The main factors of failures at each stage have been discovered. At the stage of automation errors result from the failure to understand the mission and value of the business and to implement digital technologies. At the isolated stage the negative factor is the insufficient support of priority changes and the wrong choice of what exactly needs to be transformed. It has been discovered that at the stage of partial synchronization systemic digital transformation is hindered by an ineffective change management strategy or an insufficient number of transformation projects for adequate change of the overall operation. Problems with the organizational structure or digital literacy can lead to the disruption of digital transformation at the stage of full synchronization. The risks of continuous transformation stage result from losing the priority, ensuring the transformation, due to inflexible culture, lack of discipline regarding the constant identification of new business disruption risks and responding to them. The practical significance of the present research is stipulated by the proposed recommendations for changes in the organizational behaviour of companies that will reduce the risks of failures in particular and failures of digital transformation as a whole

Keywords: digitalization; organizational flexibility; stages of digital development; agile methodologies; digital transformation mistakes; levels of impact of digital technologies

Article's History: Received: 19.06.2023; Revised: 20.09.2023; Accepted: 29.11.2023

● INTRODUCTION

The introduction of digital technologies provides both great opportunities and significant challenges for organizations. Despite the benefits of digitization, demonstrated by companies, difficulties in introducing these technologies,

their impact on organizational behaviour and causes of failure have not yet been fully researched by scientists. Therefore, there are certain gaps in the formation of recommendations understandable to managers and company

Suggested Citation:

Piddubna, L., & Gorobynskaya, M. (2023). Digital transformation as a factor of changes in the organizational behaviour of international companies. *Development Management*, 21(4), 25-36. doi: 10.57111/devt/4.2023.25.

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leaders on overcoming possible obstacles on the way to effective digital transformation. Rapid technological development and increased competition stipulate the need for digital transformation for most companies, which opens up many opportunities, such as increasing productivity, reducing costs, improving customer service and creating new products and services.

New opportunities for optimizing business processes and increasing work efficiency provide for prudence, strategic planning and readiness for changes in organizational behaviour. These issues are discussed and considered by leading scientists and management practitioners. A. Zimmermann *et al.* (2021) presented a digital transformation architecture for intelligent digital products and services. The scientists studied the processes of digital transformation using artificial intelligence and available intelligent technologies, the issue of decision-making and management of these processes. K. Lardi (2022) addresses the practical aspects of digital transformation implementation, paying attention to the key element – the human factor in transformation. She determines the specifics of managing internal interested parties, such as leadership teams and employees, as well as external interested parties, such as customers, partners and suppliers. This made it possible to suggest a system of business digital transformation, which contributes to the successful implementation of new digital solutions.

A. Hinterhuber *et al.* (2021) combine academic theory with practical experience and contributions from companies that are at the forefront of global best practices in the field of digital transformation. The researchers systematized information on planning and implementing digital transformation by leading companies. Interviews with CEOs (chief executive officers) and directors of digital technologies of such companies as: Bulgari, Deutsche Bahn, Henkel, Lanxess, L'Oréal, Unilever, Thales and others were conducted for this purpose. This made it possible to suggest road maps for the successful implementation of digitalization, to systematize organizational capabilities and consequences of digital transformation for business productivity. Authors, studying difficulties and failures faced by companies in the process of digital transformation, deserve special attention. M. Beijen (2021) reflects on the knowledge and experience accumulated in daily practice, focusing on the approach to contemporary digital business challenges. He proves that top management should be the driving force of the company's digitalization process. Digital transformation cannot be imposed through a top-down management approach, however without commitment at the top level, efforts to reform outdated processes or systems will be ineffective. A successful digital transformation also provides for a comprehensive understanding of both the theory and the practical side of the process by everyone involved in the process or those who may be affected by the change.

Modern Ukrainian scientific discourse mainly focuses on the features of digital transformation both at micro level for Ukrainian enterprises and at macro level for using these processes in the post-war recovery. The monograph edited by N. Mazur (2022) examines the issue of digitalization of Ukrainian enterprises taking into account current

conditions and limitations. For this purpose, social and economic aspects of digital transformation were analysed, information and innovation changes of business entities in the conditions of the digital economy were identified and the changes in their management systems were substantiated. A. Spitsina *et al.* (2022) summarized the main trends of Ukrainian economy digitization and analysed its state with the help of digitization indices. The scientists studied Ukraine's accession to the digital market of the European Union through the participation in Digital Europe program. It was proven that it enhances and supports IT (information technology) industry in Ukraine and creates synergy between sectors of national economy, restructures labour market.

As can be seen from the analysed literature, a lot of attention is paid to the study of digital transformation processes at micro and macro levels, practical experience of companies and digitalization are summarized, its impact on the company's competitiveness is studied and the importance of human factor is systematized. However, the issue of generalizing recommendations for changing organizational behaviour in order to overcome the problems of digital transformations is not fully resolved. The goal of the present article is to study the impact of digital technologies on organizational behaviour in international companies, to summarize the causes of digital transformation failure, connected with imperfect management of changes in organizational behaviour, and to provide recommendations for their prevention.

● MATERIALS AND METHODS

To achieve the stated goal, a combination of general scientific and special methods of scientific research was employed, in particular deduction and induction, analysis and synthesis to determine the impact of modern digital technologies, which significantly change organizational models of behaviour and ways of doing business. The practical experience of companies that have already introduced the process of digital transformation has been summarized by the method of theoretical generalization, which made it possible to identify components of companies' organizational flexibility and determine its impact on organizational behaviour. In this study, with the help of an abstraction method, organizational flexibility is seen as a sign of continuous improvement, continuous delivery, communication, team and people maturity. The use of statistical and economic analysis methods during the study of prerequisites, volumes and characteristics of the environment and digitalization factors, allowed to draw a conclusion about the rapid change in the organizational behaviour of companies and difficulties that arise in the process of digital transformation. The application of systematization methods made it possible to determine the influence of flexible methodologies on the results of companies' activities and to provide recommendations for their further implementation for the integration of digital solutions into the organizational structure of companies, radically changing the principles of their work by creating new business processes, interaction with customers and organizational culture.

Comparison and analysis methods made it possible to identify the main errors in organizational behaviour at

various stages of digital transformation. System-structural and functional approaches were used in building a step-by-step model of digital transformation. The applied graphic method was aimed at visual display of change trends in the organizational behaviour of companies at various stages of digital transformation and formation of strategic directions of action, as well as visual display of certain research results. The generalization method was also used in formulating the research results. With the help of inductive and deductive methods, the conclusions have been substantiated and suggestions for further scientific research have been provided. The abstract-logical method was also used when writing the conclusions and recommendations of the research. The study used a five-stage model of digital transformation, originally proposed by T. Saldanha (2019). The original of this model has been supplemented and improved using the focal object method, which adds new characteristics to existing objects, improving the original. The analysis of the supplemented five-stage model of digital transformation made it possible to determine relevant limitations and failure risks as well as digital transformation failures, which suggests organizational flexibility being the main measure of modern transformations.

The works of leading foreign and Ukrainian scientists, public information and specialized scientific research on the problems of modern trends in the development of digital society and changing organizational behaviour during the introduction of digital technologies into the activities of companies, served as the foundation for the present research. The study used data from the websites of international companies Walmart, Delta Air Lines, Zappos and Toyota, whose digital experience was analysed in the article. When conducting research using the method of generalization, the content of digital transformation and its impact on changing organizational behaviour was studied, the experience of international companies in implementing digital technologies was analysed and summarized.

● RESULTS

The digital economy has gained a global scale and powerful companies that have already entered the digital era generate up to 90% of revenue and profit. According to World Trade Organization (2021) forecasts 40-50% of the GDP of the most developed countries will be generated within the framework of the digital economy by 2025. In 2017 companies Google, Apple, Microsoft, Facebook, Amazon, China's digital giants (Baidu, Alibaba, JD.com and Tencent) had leading positions in the field of digital technologies (Gada, 2020). The pace of digital transformation is spreading with the world's largest capitalization companies transitioning to digital mode, giving them significant competitive advantages. X. Teng *et al.* (2022) point out that after the completion of digital transformation, the efficiency of each branch is predicted to increase by 30-50% and companies will be able to increase their overall efficiency by 8-10 times. Representatives of international business are rapidly implementing digital transformations, modernizing technologies in order to become digital leaders. An idea of digital transformation importance for companies around the world is evidenced

by data suggesting that international business spending on technology and services will amount to \$2.3 trillion (Spending on digital..., 2023) by the end of 2023. In 2018, the McKinsey Global Institute estimated that an additional \$13 trillion could be added to global GDP by 2030 through digitization, automation and artificial intelligence as these technologies create new business opportunities, increase productivity, and profits are reinvested in the economy (ITUTrends, 2018).

According to SAP's digital transformation study, 96% of senior executives believe that digital transformation is a primary business objective and 92% report that they have mature digital transformation strategies and processes to improve customer engagement. 93% of leaders believe that digital technology is critical to maintaining a competitive advantage, they invest more in big data and analytics (94%), the Internet of Things (76%) and 50% already work with artificial intelligence and machine learning (Elliot, 2017).

Digital transformation provides for using technologies to radically improve productivity, provide value for customers, change business models of enterprises and is the most relevant trend for many companies around the world. As G. Westerman *et al.* (2014) point out the use of digital advances such as analytics, mobility, big data analysis, Internet of Things, cloud technologies, social media and smart embedded devices enhance the use of traditional technologies (ERP (enterprise resource planning), etc.) to achieve radical changes with customers, transform internal processes and deliver value propositions.

However, digital transformations are accompanied by a number of difficulties. Firstly, they require significant investments, which may not always be justified. Companies must find a balance between technological improvements and financial efficiency. Secondly, digital transformation provides for the reconsideration of business processes and the change of corporate culture. Employee resistance can be a significant obstacle to digital transformation. Thirdly, there is a threat to cyber security. As the amount of digital data grows the likelihood of cyberattacks increases. Companies must invest time and resources in protecting this data.

Digital transformation has significantly affected organizational behaviour in companies. A study by the Centre for Information Systems Research at the Massachusetts Institute of Technology revealed that managers expect digital transformation efforts to significantly impact 67% of employees (Dery & van der Meulen, 2020). It is the employees who must adapt new systems, data, processes and habits to make the transformation happen.

The best companies combine digital activities with strong leadership to turn technologies into transformation. This is known as digital maturity. Companies vary in their digital maturity, and those that are more mature outperform those that are not. Organizational changes that occur under the influence of external environment directly depend on the organizational behaviour of employees. With the advent of new technologies and the increasing use of digital platforms, companies are introducing new ways of operation, communication and collaboration. The significant changes in organizational behaviour brought about by digital transformation are illustrated in Figure 1.

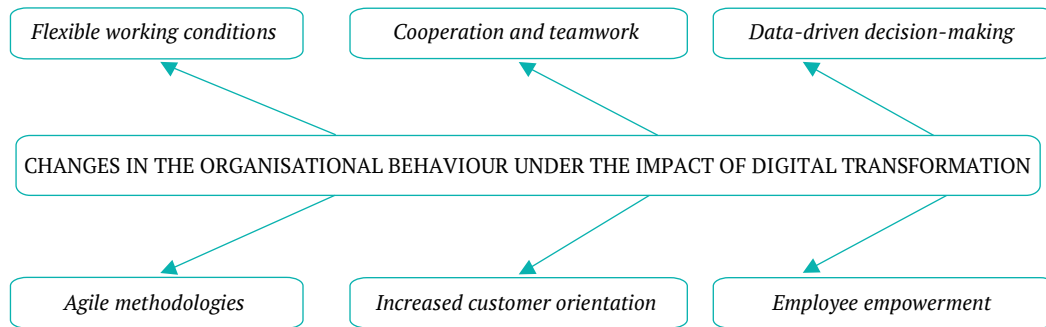


Figure 1. The impact of digital transformation on organizational behaviour

Source: developed by the authors

Digital transformation has enabled companies to offer more flexible working conditions, such as telecommuting, remote work and flexible schedules. It contributed to employees’ better work-life balance and increased productivity. Companies that have been able to offer more flexible working conditions due to digital transformation include Google and Dell, which provide their employees with the possibility to work using video communication and collaboration tools, offer flexible work schedules, allowing them to work throughout the day from any places (Remote workers, n.d.; Pichai, 2021). IBM (International Business Machines Corporation) uses video communication and collaboration technologies, allowing its employees to work at a time convenient for them (Poole, 2020). Upwork is an online platform for freelancers and clients that allows to work remotely.

Collaboration and teamwork: digital tools such as instant messaging platforms (Slack, Microsoft Teams, and Google Chat) allow teams to work together effectively, regardless of their physical location. Cloud storage tools like Google Drive, Microsoft OneDrive, and Dropbox allow teams to share files and work on them in real time. With messaging tools like file sharing, screen sharing and video conferencing (Zoom, Microsoft Teams, and Google Meet) one can streamline collaboration by making it easier to share ideas, create documents and work jointly on tasks. Companies that use digital tools to change organizational behaviour include, for instance, a multinational company Google, which has created an entire ecosystem of online services and tools to ensure the efficient work of its companies and users. Google Docs and Google Drive make it possible to create documents and store them in the cloud; the Internet company Amazon has changed the approach to e-commerce, using cloud technologies, artificial intelligence and machine learning to improve user experience and delivery speed of orders (Khudik, 2021); Uber uses mobile communication and geolocation technologies to change the taxi world and provide easy access to its services; online store Zappos uses social networks and e-mail to interact with customers and provide quality service.

Data-driven decision-making: with the help of big data and analytics global companies change their organizational behaviour by making more informed decisions about their operation and strategy. The use of Big Data

allows Walmart, Amazon, Ford, Delta Airlines to reduce costs, improve personalised marketing, increase sales and attract new customers. Using big data analytics, Walmart has improved its operational efficiency and achieved significant online sales growth of 10-15% with an additional revenue of \$1 billion (Walmart leveraging..., 2023). S. Galea-Pace (2020) point out that Big Data has helped propel Amazon to the top of e-commerce. Using Big Data allows the company to choose the warehouse closest to the customer and significantly reduce delivery costs from 10 to 40%. Ford Motor Company has formed a new strategic partnership with Google to modernize the automaker’s IT systems and use data more effectively to increase profits, improve customer experience and introduce innovations. Ford will also implement Google’s AI (artificial intelligence) technology to improve efficiency in vehicle development, supply chain and manufacturing, employee training, assembly line inspection and many others (Ford and Google..., 2020; Mixson, 2021). Delta Air Lines is focusing on using artificial intelligence, mobile applications, big data and the cloud to digitally transform its operations. This company’s annual ICT (information and communication technology) spending was estimated at \$1.42 billion in 2022 (Delta Air Lines..., 2022).

Agile methodologies: managing agility is vital for firms to survive in a turbulent market environment. Companies implement agile methodologies to become more adaptive and responsive to changes. The company’s potential primarily depends on the internal flexibility of its resources and its ability to coordinate the use of these resources to achieve strategic goals. Companies can generate sustainable competitive advantages by effectively controlling and utilising their unique resources. Agile methodologies provide for collaboration, iterative development and continuous improvement, which aligns with the digital transformation of organizations. Organizational attributes such as human resources, organizational learning, organizational structure and management style, technological capabilities and supply chain capabilities can influence the company’s organizational flexibility. Under conditions of digital transformation, the most important measure is the organizational flexibility of companies, which indicators include: structural flexibility, resource flexibility, leadership, cultural, technological and innovation flexibility (Fig. 2).

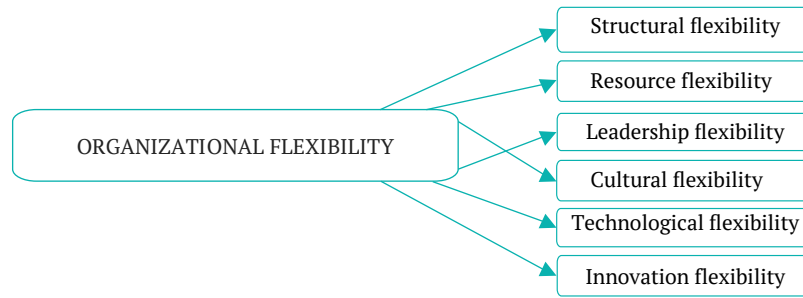


Figure 2. Components of organizational flexibility of companies under conditions of digital transformation

Source: developed by the authors based on G. Ni *et al.* (2021)

Structural flexibility is the organization’s ability to restructure. Resource flexibility is the ability to transform resources into other beneficial uses, giving organizations a buffer to adapt to changes in an uncertain environment. Leadership flexibility is leaders’ ability to play several different, sometimes opposite, roles to meet the demands of fast-changing environment and diverse activities in different directions, as well as the ability to adapt by adjusting goals using knowledge and skills. Cultural flexibility is the ability to adapt the corporate culture to form a mental

model, a sense of dignity and a learning atmosphere in order to effectively adapt to environmental changes and uncertainty. Technological flexibility is the ability to change technical potential in accordance with competitive requirements. Innovative flexibility is the ability to develop new products or services to quickly adapt to market requirements at low costs. The implementation of agile methodologies can positively affect the efficiency of companies, in particular, under the circumstances presented in Table 1.

Table 1. The impact of agile methodologies on organizational behaviour

Results of agile technologies implementation	Content of the results of agile technologies implementation
Reduction of time for solving problems and making decisions	Allow to quickly react to changes in the market and internal processes in the company.
Improving communication and cooperation	Provide for active cooperation between different teams and divisions of the company, which positively affects communication and cooperation between employees.
Increasing employee motivation	Give employees opportunities to be more independent and participate in decision-making, which can increase their motivation and involvement in the company’s activities.
Product quality improvement	Focused on the needs and requirements of customers, which allows the company to be more adaptable to changes in their requirements and wishes. This can have a positive impact on product quality and customer satisfaction.
Cost reduction	Allow the company to use resources more efficiently and reduce costs of production, marketing and product development.

Source: developed by the authors

Examples of companies implementing agile methodologies to change organizational behaviour and reaping positive results include companies such as Spotify, Netflix, Amazon, Zappos, and others. Digital service Spotify uses Agile Scrum methodology to rapidly develop and release new features of its music platform (How Amazon and Spotify..., n.d.). Teams work in small groups and regularly interact with each other, which allows them to quickly respond to the changing needs of users and the market. The introduction of the Holacracy methodology by the American online store Zappos insights (n.d.) allows employees to make decisions independently, participate in the company management process and create a more transparent and democratic culture. D.J. Fogarty (2015) reports that the multinational corporation General Electric uses “Lean Six Sigma” methodology to improve the efficiency of its business processes and reduce costs. The company actively implements this methodology in all its departments and processes.

Toyota Motor Corporation uses Toyota Production System (TPS) methodology, which is based on “Just in time” and “Kaizen” principles (Toyota production system..., n.d.). It ensures high product quality and improves production processes efficiency and customer communication. Internationale Nederlanden Groep uses the Agile methodology to develop its banking products and services, which ensures the bank’s competitiveness and allows it to respond quickly to changes in customer and market needs (Truong, 2023).

Employee empowerment: digital transformation has led to more decentralized decision-making and changes in organizational behaviour through the introduction of new technologies, tools, giving employees more autonomy, decision-making powers and greater employee engagement and job satisfaction. Tools such as Google Docs, Slack, Trello provide opportunities for more decentralized decision-making and coordination between employees from different parts of the world. Companies become more

flexible, responsive to changes in the market and maintain constant communication with their customers and partners. Increased customer orientation: digital transformation enables companies to collect data about customers and their behaviour, which in turn allows them to fine-tune marketing campaigns and sales strategies. Such

companies can use a variety of analytical tools and methods to analyse large amounts of data and find useful information that can be used to improve the performance of companies. The impact of organizational changes on the organizational behaviour of employees under conditions of digital transformation is presented in Table 2.

Table 2. The impact of organizational changes on the organizational behaviour

Organizational changes	Content of organizational behaviour
Changes in company culture	Development and formation of the digital culture of companies under conditions of digital economy: digital leadership, adaptation of organizational culture to the digital environment and global challenges, organizational flexibility; customer focus; digital strategy; digital thinking; formation of digital platforms using a network approach; continuous learning.
Introduction of new digital technologies	Introduction of a new project management system, new programs, software products or other digital tools requires additional training, skills and effort on the part of employees and provides for new methods operation and communication. It can affect organizational behaviour, work attitudes, motivation and productivity.
Changes in company structure	Reorganizing company divisions or changing management chains can lead to changes in employees communication and cooperation.
Changes in work conditions	A change in working conditions affects the organizational behaviour of employees. If a company switches to remote work, employees may begin to use e-mail and other means of remote communication more, as well as change their work schedule and the way they organize their working hours. The expansion of remote work and the use of video conferencing can affect communication, the degree of mutual understanding, cooperation between employees and enthusiasm.
Development of communication skills	As digital technologies enable working with remote teams and employees, communication skills and the ability to cooperate become essential. The importance of cloud technologies is growing for information storage, collaboration and interaction; internationalization of online digital communication; individualization of production processes; use of a combined model (online-offline) of human resources management; development of digital literacy.
Understanding and using analytical tools	Digital transformation provides the opportunity to collect large volumes of data, which allows for increased efficiency and better decision-making. Data analysis includes: machine learning algorithms, artificial intelligence, electronic assistants, architectural engineering. However, appropriate skills and knowledge are necessary for using this data.
Development and improvement of digital competences of employees	Employees of international companies must develop digital competencies and skills, namely: the ability to find, understand, evaluate, systematize and disseminate data using digital tools. Cognitive, social skills, ICT skills, the ability to interact and communicate with others using the existing set of digitalization technologies, allows employees to be effective in working with new technologies and processes.
Development of talent attraction and retention strategies	Digital transformation necessitates attraction and retention of qualified employees with new skills and competencies.
Increased openness and flexibility	Digital transformation may require changes in work organization and management, demanding greater openness and flexibility from employees and company management.
Introduction of electronic assessment programs	Can be useful for organizations that want to improve their management and employee evaluation system. This may include using software to collect data on employee performance, task completion and their achievements. Moreover, the use of e-appraisal programs can improve employee motivation. This is possible due to e-appraisal programs ensuring transparency and availability of information about the evaluation criteria, as well as achievements and shortcomings of employees. This gives employees the opportunity to see their success and areas for improvement.

Source: developed by the authors

M. Pratt & J. Sparapani (2022) point out that 91% of organizations are involved in some form of digital transformation. They also found out that although 87% of senior executives consider digitization as a priority only 40% of organizations have implemented large-scale

digital initiatives. The five-stage model of digital transformation describes this process and identifies corresponding failure risks and constraints of digital transformation. The model extended by the authors is shown in Figure 3.

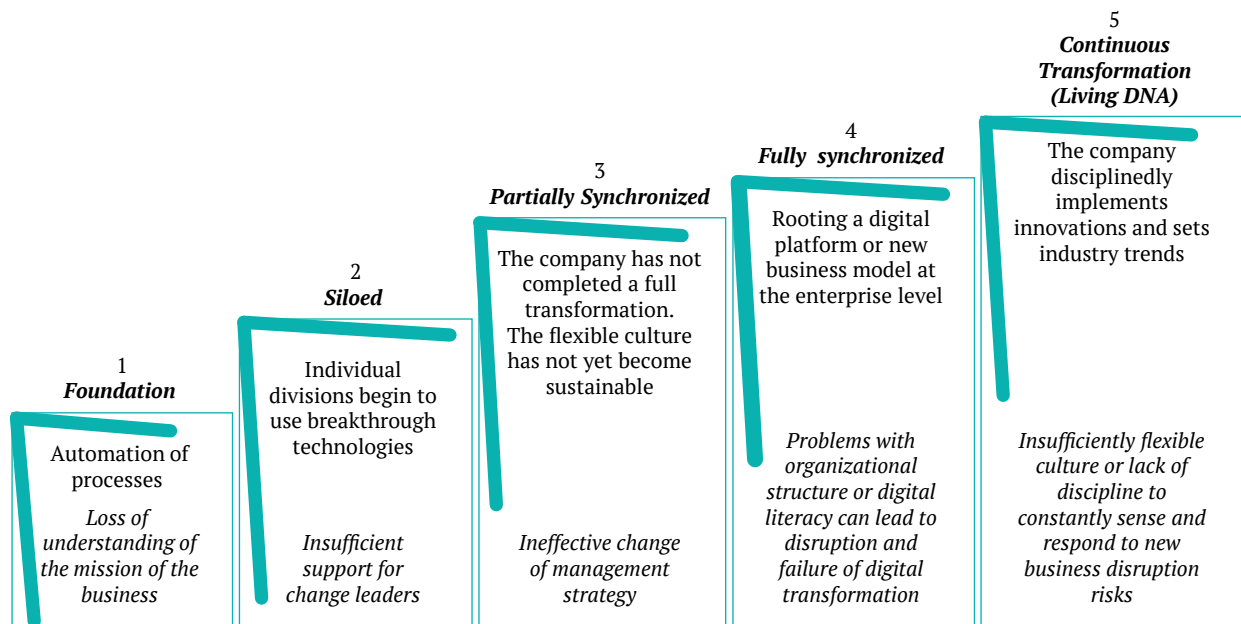


Figure 3. Problems in the organizational behaviour of companies at different stages of digital transformation

Source: developed by the authors based on T. Saldanha (2019)

Automation (or digitalization) of processes is the first stage of digital transformation, its foundation, on which individual internal processes (sales, production or finance) are automated. It is more likely automation (or digitization) rather than transformation that provides digital foundation needed for future transformation. The use of digital platforms ensures the transformation of manual operations into automated ones. This stage delivers enterprise value through the use of technologies for more efficient performance and lays the foundation for further transformation. The risks arising at this stage are connected with the loss of understanding of business mission and value and poor implementation of digital technologies. Improving the strategic thinking of the company's top management can contribute to overcoming these risks.

According to the model of T. Saldanha (2019), the second stage of digital development is isolated, when separate divisions of the company begin to use breakthrough technologies to create new business models. For example, the production department may make progress in the use of the Internet of Things, which will lead to significant changes in production or logistics management, or the finance department will start using blockchain technologies and transform the way of accounting between the company's branches in different countries. These efforts are fragmented, with no overall company strategy to guide the transformation. Insufficient support of change leaders and the wrong choice of what exactly needs to be transformed are among the most common mistakes. Therefore, the successful completion of this stage provides for a change in the organizational behaviour of the company in the direction of expanding authority of change leaders and directing efforts to the most accurate definition of digital influence levers.

The next stage is characterized by a partially synchronized transformation. A business leader, owner or CEO has recognized the disruptive power of digital technologies and

determined the state of digital future. The organization, as a system, begins to move in the same direction. However, the enterprise has not completed the transformation to a digital foundation or new business models and the flexible innovation culture has not become sustainable. Systemic digital transformation can be hindered by an ineffective change management strategy or an insufficient number of transformation projects to adequately transform the core organization. To overcome these factors, it is necessary to implement a change management model and ensure the adequacy of the strategy in terms of the portfolio of initiatives necessary for a complete transformation.

The fourth stage or full synchronization provides for the implementation of a digital platform or a new business model at the level of the entire enterprise. This is quite a long and difficult process, since problems with the organizational structure or digital literacy can lead to disruption and failure of digital transformation. The only way to survive the constant threats of disruption is to make digital capabilities and an agile innovation culture an integral part of the enterprise. This requires a reboot of the technical capabilities of both the IT department and the rest of the enterprise.

The fifth stage (stage of continuous transformation) is when the transformation becomes permanent. The company maintains a constant leadership in the industry as it innovates with discipline and sets industry trends. Constant innovation and a highly flexible culture become second nature to the organization. The company becomes the market leader. The risks of this period are related to the loss of the advantage that previously ensured the transformation at the previous stage, or due to an insufficiently flexible culture, a lack of discipline to constantly sense and respond to new risks, undermining the business.

The organizational behaviour of the company should be aimed at forming a flexible culture to support the constant evolution of business and organization, regular identification of risks and disciplined response to them.

Warning signals are often ignored when leaders already sense the threat of digital disruption to their organizations but fail to respond properly. T. Saldanha (2019) attributes this to sociological reasons: fear, inertia and underestimation. Fear of destroying existing products and the cost of change. Inertia results from self-confidence in

the current strategy based on its previous success. And finally, an underestimation of the potential impact of the digital revolution and an optimistic view of the organization's ability to face new competition. A summary of the most common causes of digital transformation failures and ways to overcome them is presented in Table 3.

Table 3. The most common causes of digital transformation failures and ways to overcome them

The most common causes of digital transformation failures	Changes in organizational behaviour to overcome digital transformation mistakes
Insufficient employee involvement	<ul style="list-style-type: none"> • clear understanding of the business strategy and goals of digital transformation by employees; • use of know-how and experience of other companies; • use of emotional intelligence to understand employees' fears; • promoting the spread of startup culture in the organization.
Insufficient support from management	<ul style="list-style-type: none"> • making senior management aware of business strategy and digital transformation goals before investing in change; • contributing to top management's understanding of the need for digitization and its benefits.
Poor or absent cross-functional collaboration	<ul style="list-style-type: none"> • understanding of the mechanism and stages of digital transformation by all divisions of the company; • adaptation of know-how and experience of companies that have effectively implemented certain stages of digital transformation; • using emotional intelligence to overcome conflicts and resistance to change.
Lack of accountability	<ul style="list-style-type: none"> • understanding the need to form an information system to ensure digital transformation.
Immaturity of digital culture	<ul style="list-style-type: none"> • a clear understanding of the business strategy and goals of investing in digital transformation; • management of resistance to changes and conflicts; • promoting the spread of startup culture in the organization.

Source: developed by the authors based on S. Teker *et al.* (2022)

Summarizing various studies on the causes of failures and ineffectiveness of digital transformation, it is possible to offer a number of practical recommendations for changing organizational behaviour in international companies under the influence of digital transformation. To develop a culture of innovation and openness it is necessary to create an environment where employees can freely share ideas and develop new solutions. It is important to maintain transparency and openness in the organization so that employees feel part of the organization and are involved in ensuring the company's competitive advantage. To encourage collaboration and knowledge sharing it is necessary to motivate employees to share their knowledge and experience, enabling cross-functional teams to work together on digital initiatives, which is an important component of successful digital transformation. Creating a flexible work environment: digital transformation has enabled companies to adopt flexible working arrangements such as remote working. Creating a flexible work environment will allow employees to work anywhere, anytime, and on any device, while maintaining productivity and collaboration.

Emphasizing the importance of digital literacy: companies should prioritize the development of digital literacy among employees at all levels. Training and resources must be provided to help employees master new digital tools and technologies, leading to more efficient and productive collaboration. Development of a culture of continuous learning: to meet the demands of the digital environment companies must create a culture of continuous learning, encourage employees to explore new digital tools and technologies, attend webinars, seminars and gain new knowledge and skills.

Developing a digital strategy: a digital strategy can help companies align their digital initiatives with overall business goals. The strategy should focus on creating a seamless digital experience for customers and employees, improving operational efficiency and driving innovation. Ensuring cyber security and data privacy: as the use of digital technologies increases, companies must prioritize cyber security and data privacy. Implementing measures to protect against cyber threats and training employees in cybersecurity best practices provide companies with the appropriate level of secure operation. Use of data analytics: data analytics can help companies gain insights into customer behaviour, market trends and operational efficiency, make informed decisions and continuously improve digital initiatives.

Therefore, organizational flexibility is the main measure of modern transformations. The results of the study emphasize the relevance of perceiving the importance of digitalization and learning as triggers of digital transformation. In addition to theoretical contributions to the existing literature on digital transformation and organizational capabilities, this study provides some managerial implications for digital transformation in companies. The present study offers a number of recommendations that can help companies overcome the negative consequences that may arise during the digitalization process, advance research on behavioural and organizational culture in the context of digital transformation.

● DISCUSSION

The issues discussed in this article are not entirely new. There is quite a broad scientific discourse on the necessity, mechanisms and problems of digital transformation of

companies. The latest scientific research helps to understand the process of digital transformation of companies and to explain the change in organizational behaviour caused by digitalization. I.V. Tokmakov *et al.* (2018) claim that the digital transformation of a company is the introduction of the latest technologies into its business processes. This approach provides for the introduction of modern equipment and software, as well as fundamental changes in approaches to management, organization, corporate culture and external communications. The result of the transformation is an increase in employees' productivity, an increase in the level of customer satisfaction and a progressive and modern reputation for the company.

G. Vial (2019) has pointed out in his work that digital transformation is a process of pushing organizations to strategic responses with the help of digital technologies, such as information, computing and communication, changing their structure, boundaries and ways of creating value, realizing the evolution process of the enterprise. K. Dery & N. van der Meulen (2020) believe that digital transformation is a high-level transformation based on digitization and aimed at creating new dynamic digital business models.

Based on previous research, a group of Chinese researchers X. Teng *et al.* (2022) point out that digital transformation is based on digital technologies, including artificial intelligence, Big Data, cloud computing and blockchain. This will open up new perspectives for companies, develop new products, models and new formats, and provide an opportunity to obtain a model of sustainable development with diversified effectiveness. The main focus of the concept is on investments in digital technologies, digital skills of employees and digital transformation strategies that facilitate digital transformation, thus helping to improve productivity and support their sustainable development.

Since 2021 a large number of research has been conducted on the factors, influencing the success of digital transformation. Scientists P.C. Verhoef *et al.* (2021) point out that at different stages of digital transformation, companies have different requirements for organizational structure, culture, growth strategy, digital and other resources and capabilities, and it is their coordination and adaptation that will help facilitate the digital transformation of the enterprise. In addition to technology adoption, scientists mention such critical factors for successful digital transformation as the organization's ability to change and its operational excellence with the integration of external digital services with internal IT support providing significant benefits in today's business space.

The analysis of the above-mentioned scientific works allows to conclude that the issue of changing the organizational behaviour of employees and companies under the influence of digital transformations and the formation of directions for organizational flexibility is not sufficiently covered and requires a more detailed analysis. It is the study of the activities of international companies, implementing agile methodologies to change organizational behaviour under conditions of digitalization, described in this article, that leads to the conclusion of their chosen effective strategy.

The research of M. Ghobakhloo & M. Iranmash (2021), conducted within the framework of Industry

4.0, suggests that the phenomenon of digital transformation success in the context of Industry 4.0 is significantly different from the concept of digitalization success in traditional literature. Digital transformation within Industry 4.0 is extremely resource-intensive and complex. To achieve a certain level of informational, digital, operational and cyber maturity, small enterprises need special competencies in the field of change management and strategic digitalization planning. Achieving a successful competitive position by companies is possible due to the determination of aspects of the enterprise strategic vision, investments in digital transformation, creation of an innovative culture, possession of sufficient intellectual property assets and know-how, and powerful digital capabilities.

J. Dąbrowska *et al.* (2022) analyse four levels of impact of digital technologies: individual, organizational, ecosystem and geopolitical, each of which stipulates and influences the others. One can agree with the author's conclusion that this influence is not exclusively positive and does not always lead to positive results. According to scientists, digitalization can also cause "conflicting interpretations, contradictions and tensions, for which there is no single best solution, but rather different solutions that may be good for some but worse for others". At the individual level, the processes of digital transformation often cause resistance, fears and anxiety on the part of company employees, due to their fears about the reduction of jobs and the need for continuous professional development. At the organizational level, digital transformation involves changes in company strategy, management, resources, processes, competencies, culture and leadership. It is stated that existing organizational structures are often poorly adapted to uncertain outcomes inherent in them, which requires management to provide organizational support for the development of new ideas and organizational structures. At the ecosystem level, the issue of balancing the use of the advantages of digital transformations by its individual members to achieve their own interests, or to promote joint ideas and joint actions to compete with other ecosystems that may be less capable of digital technologies, is problematic. At the geopolitical level, digital transformations are perceived as a tool for market and even socio-political dominance, giving transnational corporations and governments access to user data and the ability to manage their interactions at a level excluding other countries from the market.

The article by N. Uchihira & T. Eimura (2022) examines six factors, preventing the cooperation of all stakeholders in the process of implementing digital projects in an organization. These factors include: lack of information, experience and mutual trust, incompatible evaluation criteria, conflict of interests and a different visions of the future. The authors discovered these factors through interviews with respondents in large Japanese companies. The researchers attribute the lack of information to insufficient knowledge of modern technologies among employees of individual units of the company, implementing certain digital transformations. The lack of experience results from the insufficient transfer of empirical knowledge and previous experience of digital transformations from one company employee to another. The incompatibility of the existing evaluation criteria of the organization with the promotion of digital technologies will lead to the impossibility of

making rational decisions on their implementation. If there are conflicts of interest between stakeholders, cooperation between them will be impossible. It is important to have a mechanism or contract that aligns interests and makes the advancement of digital technologies beneficial for all the parties concerned. It is critical to develop and disseminate a digital vision of the future, as it is an effective dialogue tool to overcome barriers of recognizing the need to introduce digital transformations among stakeholders. The lack of mutual trust, resulting from one of the main problems in promoting digital technologies, is caused by uncertainties as their consequences are unknown until they are actually implemented. For such an uncertain task, it is important to have trusting relationship between the company's business units and the key innovation personnel. In general, agreeing with the conclusions made by the researchers, it is worth paying attention to the lack of prioritization of the listed factors for the stages of digital projects implementation.

In their study M. Poláková-Kersten *et al.* (2023) study the features of digital technologies implementation in high-reliability organizations, providing vital services for society, such as energy, food, defense, communication, etc. The authors draw the following conclusions: they question the assumption of digital transformation being primarily a top-down process and provide insights into the challenges faced by top managers, particularly subordinates' resistance to digital transformation. The importance of involving the IT service in the transformation to ensure a balance between transformation and reliable work is emphasized. The researchers investigate protective mechanisms used by IT staff to respond to the threats connected with the introduction of digital technologies and ways to influence the strategic decisions made by the company's top management. The study offers a detailed micro-processual approach to the challenges connected with the implementation of strategic changes in such organizations and identifies those that must be resolved in the process of transforming their complex systems without compromising reliability. The authors of the article emphasize the preservation of stable functioning of high-reliability organizations during digital transformations, although do not take into account changes in organizational behaviour at different stages of transformations, as it is done in the present research.

In the modern scientific discourse there is a firm understanding of the need to implement digital technologies to increase the competitiveness and stability of the organization. In order to adapt to organizational changes, companies must develop their organizational capabilities to effectively coordinate resources and require effective leadership to manage organizational behaviour. The analysis of existing practices of digital transformations suggests that this process is accompanied by significant changes in the behaviour of subjects at all levels – from individual to geopolitical. Also, the accumulated experience calls for answers to questions about the management of companies overcoming a large number of obstacles on the way to the implementation of digital technologies. It is worth mentioning that expertise necessitates both the identification of such obstacles and specific recommendations and clear algorithms for preventing failures for enterprises from various industries, of various sizes, at various stages of digital transformation.

● CONCLUSIONS

Global geopolitical trends, modern technological transformations and digital transformation lead to significant changes in the organizational behaviour of international companies, radically affecting the conditions of doing business, opens up new opportunities and creates significant challenges. Changes in organizational behaviour are driven by technology but they ultimately aim to improve company performance, increase employee engagement and create greater value for customers. It has been discovered that the organizational flexibility of companies is the most important criterion of digital transformation and it is necessary to clearly define and take into account the indicators of measuring organizational flexibility. The components of organizational flexibility under conditions of digital transformation have been studied, the impact of agile methodologies and organizational changes on organizational behaviour has been analysed. The analysed five-stage model of digital transformation, describing this process, is used to identify the relevant risks of failure and constraints of digital transformation.

Summarizing the causes of digital transformation failures made it possible to offer practical recommendations for changing organizational behaviour in international companies under the influence of digital transformation, among which are the following: the need to maintain openness and transparency in companies so that employees feel their significance and involvement in the organization, which will make employees interested in high indicators of their professional performance; the priority of developing digital literacy among employees in the company, mastering digital tools and processes will contribute to an effective and productive organizational environment; compliance with the requirements of the digital space encourages the creation of a culture of continuous learning, the provision of digital learning routes for departments or teams in order to improve the skills of employees; the development of a digital strategy that will help companies align their digital initiatives with overall business goals, will be aimed at leveraging the digital experience for customers and employees and improve operational efficiency, as well as the creation of an innovative outpost. The use of digital technologies should force companies to prioritize cyber security and data privacy, which will ensure an adequate level of secure operation. Using flexible working conditions, creating a flexible workplace will enable employees to work at the most productive time, in conditions that meet their needs, contributing to productivity and work quality. The use of analytical data will help companies to anticipate the needs of customers, offering personalized services based on customer preferences and contribute to quick decision-making and using opportunities to gain competitive advantages. The study opens perspectives for future researches and improvement of the given recommendations on changes in organizational behaviour that will help companies remain competitive in today's changing digital environment.

● ACKNOWLEDGEMENTS

None.

● CONFLICT OF INTEREST

None.

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Цифрова трансформація як чинник змін організаційної поведінки міжнародних компаній

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Анотація. Діджиталізація є необхідним процесом для підприємств у постіндустріальній економіці, який сприяє підвищенню їх конкурентоспроможності та відкриває нові можливості щодо залучення до глобальних цифрових ланцюжків створення вартості. Практика цифровізації вимагає від наукового дискурсу розроблення рекомендацій і алгоритмів подолання та попередження помилок, тому метою статті було визначення впливу цифрових технологій на організаційну поведінку міжнародних компаній та узагальнення причин невдач цифрової трансформації. Зміни в організаційній поведінці під впливом діджиталізації систематизовано за допомогою методу узагальнення. Причини невдалих цифрових трансформацій в організаціях структуровано за допомогою використання моделі п'ятиетапної цифрової трансформації. Виділено основні фактори провалів на кожному з етапів. На етапі автоматизації помилки пов'язані з втратою розуміння місії і цінності бізнесу та неякісним виконанням робіт по впровадженню цифрових технологій. На ізольованому етапі негативним чинником є недостатня підтримка лідерів змін і неправильний вибір того, що саме потрібно трансформувати. Встановлено, що системній цифровій трансформації на етапі часткової синхронізації заважають неефективна стратегія управління змінами або недостатня кількість трансформаційних проектів для адекватної зміни основної організації. Проблеми з організаційною структурою або цифровою грамотністю можуть призвести до зриву цифрової трансформації на етапі повної синхронізації. Ризики етапу безперервних перетворень пов'язані з втратою переваги, яка раніше забезпечувала трансформацію, через недостатню гнучку культуру, брак дисципліни стосовно постійної ідентифікації нових ризиків підризу бізнесу і реагування на них. Практична цінність полягає в запропонованих рекомендаціях щодо змін в організаційній поведінці компаній, які дозволять зменшити ризики невдач і провалу цифрової трансформації

Ключові слова: діджиталізація; організаційна гнучкість; етапи цифрового розвитку; гнучкі методології; помилки цифрових перетворень; рівні впливу цифрових технологій