TRANSFORMATION OF MANAGERIAL LEADERSHIP QUALITIES UNDER THE INFLUENCE OF BUSINESS DIGITALIZATION

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*Abstract***:** *The paper deals with identifying the directions and content of transformational changes in the leadership qualities of a manager under the influence of business digitalization. The paper aims to formulate and disclose scientific, theoretical, and methodological provisions for changing the qualities of a leader in the era of business digitalization. This study is based on observing how managers' leadership qualities are formed and developed in the context of digitalization at both global and micro levels. Identified are the differences between the characteristics of "traditional" and "digital" leaders based on historical and comparative analysis. A set of "traditional" leadership qualities allows for operational guidance and management of the company's future development based on the extrapolation of existing trends. Moreover, possession of the qualities of digital leaders enables multidimensional strategic management. The findings emphasize the importance of digital leadership at both macro and micro levels. The study shows the transformation of leadership and leadership qualities at different levels of economic management, which complements the existing scientific theories of leadership. To promote digital leadership at the macro level, the government is responsible for introducing digital technologies in administration, providing citizens with convenient tools for accessing administrative services. It was established that Ukraine is among the leading countries introducing digital technologies at the macro level. At the level of business management within companies, leadership in the digital era acquires specific characteristics compared to its traditional forms. In particular, the transition from individual to shared leadership leads to changes in organizational structures and management styles.*

Keywords: digitalization, digital transformation, traditional leadership, digital leadership, leader, leadership qualities

INTRODUCTION

Current digitalization processes encompass all business activities, including company management. The digitization technologies that facilitate digital transformation are driving organizations towards new ways of working. (Gorensek & Kohont, 2019). Digitalization increases the individual productivity of company employees, improves the speed and quality of work performance, and has a positive impact on work motivation (Benitez et al., 2022).

The process of digitalization demands managers at various levels of management to exhibit a distinct level of thinking, expertise, and competence. On the one hand, managers are implementing digital technologies across all areas of the organization, transforming the three basic components of business: customer experience, operational processes, and business

models (Westerman et al., 2011). On the other hand, business digitalization demands strong leadership capable of implementing changes, possessing a vision of goals and various possible paths to achieve them – digital leadership.

In the context of digitalization and digital transformation, digital leadership means the strategic use of a company's digital assets to achieve its business goals (Kubaraieva, 2022). The essence of digital leadership is multifaceted and is considered by various researchers from different perspectives. Thus, from the perspective of its impact on organisational innovation, digital leadership is defined as the process required to develop and sustain an innovative culture by rapidly bringing ideas to life through flexible IT and business architectures (Tanniru, 2018). In addition, the concept of digital leadership is explained as a management model to successfully and sustainably manage digital transformations (Troilo, 2021). In this study, it is pertinent to emphasize the distinctive nature of defining digital leadership as a combination of leadership qualities and the need to apply them: digital leadership is a concept that combines three blocks that digital leaders must fulfill – they must have (or learn) digital thinking and digital skills and combine these two elements for digital implementation to realize a common digital vision (Henselle, 2020). The leadership qualities inherent in digital leaders themselves are characterized as a set of personal, professional, social, and communicative traits and abilities that ensure effective management and stable relationships between the leader and the personnel (Prochan, 2022). Furthermore, it is noted that the individual-personal and socio-psychological characteristics of a leader as a personality influence the group and lead to the achievement of goals (Yahodnikova, 2009, Romanovsky, 2017), as well as affect the organizational resilience of companies (Üstgörül & Akkaya, 2023).

The article is dedicated to identifying the directions and content of transformational changes in managerial leadership qualities under the influence of business digitalization. The purpose of the article is to formulate and disclose scientific-theoretical and methodological provisions regarding the change of leader qualities in the era of business digitalization. The implementation of the research goal is carried out based on the classification and comparison of leadership qualities of managers in the conditions of traditional and digital leadership.

The advantage of this study is that the identification of transformations in the forms of leadership and leadership qualities of managers under the influence of digitalization helps to understand what competencies, skills, and attributes are inherent in modern managers and are currently important for the implementation of their powers, as well as in what ways they should be acquired and developed. Since digitalization is a complex phenomenon that is observed in all fields of social activity, it is appropriate to consider the specified transformational processes at the macro- and micro-levels separately and in relationship, which, in our opinion, is lacking in previous scientific works.

METHOD

The scientific *method of classification* was used as the basis for solving any scientific problem and is used to generalize knowledge. The classification of managerial leadership qualities as the subject of this research involves their arrangement and sorting according to certain characteristics. A review of literary sources revealed various approaches to studying the qualities of traditional and digital leaders. Some authors list leadership qualities without focusing on their classification. Other authors group leadership qualities into certain categories

based on classification criteria. In our study, it is necessary to group the qualities of leaders so that we can further investigate the differences in the process of their transformation under the influence of digitalization, namely, to highlight the qualities of "traditional" and "digital" leaders.

By using *historical analysis,* the changes in styles and qualities of leaders during the implementation of digital technologies were observed. *Comparative analysis* was used to identify differences between the characteristics of "traditional" and "digital" leaders.

RESULTS

Digitalization provides opportunities for society and businesses to reach a higher level of socio-economic development. Ukraine is one of the leading countries in terms of the fastest implementation of digital technologies in state and local administration. Since 2015, transparency in fiscal policy has been ensured through the Prozorro electronic procurement system and the E-data web portal for the use of public funds. To increase government transparency and streamline administration, the Ministry of Digital Transformation was established in Ukraine in 2019. When implementing the presidential program "State in a Smartphone," the ministry launched and continuously expanded the digital application Diia, which allows Ukrainians to receive administrative services and documents from the government online.

Since 2020, there has been the position of Chief Digital Transformation Officer (CDTO) in state and regional authorities in Ukraine. Digital leaders in the regions are involved in implementing national digitalization projects (digital education, digital services, internet development) and initiating and shaping regional digitalization policies, the main task of which is to create a community among digitizers in territorial communities. In the absence of administrative levers of influence, a digital leader must possess certain qualities to set a good example for territorial communities, coordinate them, set the pace, and encourage change. This position should be held by a person with an analytical mindset, legal competencies (as the implementation of the regulatory framework at the local level is part of their duties), and managerial skills (ability to build a strong team, manage business processes, personnel, etc.) (Gurska, 2022).

For businesses, Ukraine has introduced the Diia.City platform, which, based on favorable legal and tax conditions such as a single 5% corporate income tax rate, simplified reporting requirements, and easier access for foreign employees, attracts IT companies to the country. In the future, the state plans to expand digital leadership through the implementation of company development programs in such areas as:

- Training IT specialists and encouraging investment in educational programs for digital transformation;
- Stimulating the creation of data accumulation and processing centres;
- Creating conditions for the post-war return of companies to Ukraine and the restoration of digitally destroyed infrastructure;
- Legal, financial, and market support for start-ups.

The level of technological advancement in Ukraine compared to other countries across the globe is characterized by its position in international rankings. Over the past 5 years, the following dynamics of digital development indicators have been observed (Table 1).

Table 1

Indicators of Ukraine's digital development according to international rankings (2019-2023)

International index	2019	2020	2021	2022	2023
Network Readiness Index	67 (121)*	64 (134)	53 (130)	50 (131)	43 (134)
ICT Development Index (%)	22.9**	not calculated	not calculated	not calculated	80.8
World Digital Competitiveness Ranking	60	58	54	N/A	N/A
Global Innovation Index	47 (129)	45 (131)	49 (132)	57 (132)	55 (132)

* In parentheses is the total number of ranked countries
**Data for the year 2017
Source: Portulans Institute

The Network Readiness Index characterizes the level of development of information and communication technologies (ICT) in countries worldwide and reflects how digitalization penetrates the economic and social spheres of life. Ukraine's ranking in this indicator improves annually. The ICT Development Index reflects the accessibility of ICT for population use. The percentage value of this indicator in Ukraine in 2023 increased almost fourfold compared to 2017 (during the period from 2018 to 2022, this index was not calculated). The value of the World Digital Competitiveness Ranking indicator for Ukraine also improved until 2021 (later, due to the Russian-Ukrainian war, Ukraine was temporarily excluded from the ranking due to lack of information). The strengthening of Ukraine's position in this ranking occurred primarily due to indicators characterizing the level of technological education in the country.

Expert analysts from McKinsey consulting company (Smet et al., 2023), speaking about leadership in the digital age, primarily note that its characteristics depend on the transformation of the organizational philosophy of modern companies. Management structures designed to satisfy the financial interests of a limited group of owners are becoming less relevant. New organizational architectures are emerging that are focused on creating value for multiple stakeholders and include networks of self-directed teams. Such models of organizational culture anticipate more open and collaborative work and require a change in leadership styles and ways, as well as leadership qualities. There is a shift from individual leaders to leadership teams in organizational management. As a result, leaders need to rethink their purpose and the way they work. The authors provide five vectors of change in leadership qualities:

- The leader should go beyond the confines of managerial functions, acquire a forward-looking vision for the company, and develop it in this direction.
- The leader should fully unleash the human potential in the organization by working to create an environment of belonging and psychological security.

- The leader should abandon administrative-command leadership using hierarchical structures to communicate and receive management information in favor of creating a network of self-managed teams based on dialogue and cooperation.
- The leader should discontinue the practice of strict adherence to plans, thus creating a favorable environment for experimentation, research, learning, and creativity.
- The leader should refrain from constantly seeking to increase competitive advantages and market share, instead focusing on creating additional value for customers and other stakeholders, constantly improving their business models and ecosystems (Smet et al., 2023).

The importance of collaborating in running a business is demonstrated by a survey of top executives conducted by Harvard Business Review Analytic Services (2017). It was found that organizations whose leadership implemented the practice of collective leadership were more successful than those whose leaders did not support this idea. Such a form of leadership is directly associated with the digital revolution. The advantages of collective leadership include greater productivity and increased employee motivation through involvement in a common cause, and in many cases, it is a way for companies to survive in dynamic environments. The research also points out limitations and obstacles to the implementation of collective leadership: reluctance of managers, lack of strategic vision, risk aversion, fear of losing total control over processes, and lack of cooperation between departments.

The example of the Ukrainian IT company Railsware demonstrates how collective leadership is practically implemented within an organization (Lazor, 2023). Team leadership means that decisions are not made by a single manager, but the entire team is involved and motivated to achieve high-quality results. The company moves away from hierarchical structures of subordination; instead of functional departments, project-based mini-teams are created, consisting of necessary experts, allowing for comprehensive problem-solving based on continuous exchange of information, activity, creativity, and initiative of participants. The advantages of collective leadership in the company include:

- Openness and transparency of leadership to receive feedback when discussing issues;
- Communication between departments, availability of work information on internal information resources;
- Clear goal setting, task allocation, and role distribution;
- Maximum automation of document flow, communication, and other secondary processes;
- Discussion of ideas and proposals beyond the main project tasks (Lazor, 2023).

Since leadership can be divided into "traditional" and "digital", the qualities of a modern business leader can be classified accordingly to have a better understanding of how to increase management efficiency. The differences between the qualities of a digital and traditional leader are as follows.

Table 2

Transformation of leadership qualities from a traditional to a digital leader

Traditional leader	Digital leader
Performance-oriented (product quality, profit, competitiveness, etc.)	Creates value for all stakeholders and develops organizational culture
Adheres to the business plan	Builds a business model
Supervises employees	Develops talent
Uses digital technologies as an auxiliary tool in management	Digital technologies are an integral part of the management process
Focuses on goals	Analyses interim results
Limited to achieving a specific planned result	Has a strategic vision of the company's development
Focused on overall management, functional management delegates down the hierarchy	A multidisciplinary, flexible leader
Applies individual leadership	Participates in shared leadership

Source: Westerman G. et.al. (2014), Yucebalkan B. (2018), Smet et.al.(2023)

Along with the differences shown in Table 2, it should be noted that digital leadership emerged from traditional leadership and is its logical and historical continuation. Therefore, there are also common qualities of traditional and digital leadership. In particular, it concerns the psychological properties of the individual (volitional qualities, responsibility, determination, flexibility of thinking), communication and professional competence, and group interaction skills that are developed and improved in the course of professional activity (Kozak, 2019).

CONCLUSIONS

The findings demonstrate that leadership in the digital age is important at both macro and micro levels. Thus, this study shows the transformation of leadership and leadership qualities at different levels of economic management, which complemented the existing scientific leadership theories. It is established that in order to promote digital leadership at the macro level, the government is responsible for introducing digital technologies in administration, providing citizens with convenient tools for accessing administrative services. It was established that Ukraine is one of the leading countries introducing digital technologies at the macro level. Consequently, the state can avoid difficulties during the pandemic and quickly set up public administration systems to work under quarantine restrictions, as well as to prevent the collapse of public administration during the ongoing full-scale war when regular missile and cyber attacks are jeopardizing the Ukrainian state and local institutions. At the micro level, the government is demonstrating digital leadership by implementing programs to attract companies and stimulate the development of the IT sector. Reasonable state policy in the field of digital environment regulation can bring the country to a significantly higher level of socio-economic development. The current trends in digital transformation are positive, as evidenced by the growing penetration of information and communication technologies in

public life. The main task is to attract investment to the country and create conditions for the digital transformation of companies, including their business processes and management.

The study evidences that at the level of business management within companies, leadership in the context of digitalisation acquires specific characteristics compared to its traditional forms. The transition from individual to shared leadership provides benefits to all internal and external stakeholders of companies. At the same time, digital leaders have certain personal qualities who, unlike traditional leaders, have a strategic vision of the company, focus on the interests of business process participants and the environment, create an organizational culture, and develop talent. At the same time, leaders in the digital era still possess a set of traditional personal social and psychological qualities and professional competencies that allow them to communicate freely in a group, delegate authority, take responsibility and risks, and make final management decisions.

The question of the degree of transformation of personal-psychological and professional-competent qualities of a manager under the influence of the digitalization process remains debatable. The set of modern leadership qualities requires a more detailed classification, as well as an empirical analysis of the manifestation of their individual groups in the management of organisations, which forms the subject of further scientific research.

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