Central European Management Journal

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# Are we ready for digital transformation? The role of organizational culture, leadership and competence in building digital advantage

Received 5 November 2024
Revised 30 December 2024
Accepted 27 March 2025

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## Abstract

**Purpose** – The development of ITC technologies, the emergence of novel digital business models, the growing imperative for cybersecurity assurance and the phenomenon of digital disruption caused by unexpected crises force companies to rethink and redefine their strategies. Nevertheless, empirical evidence is not fully consistent with the prevailing opinion among management practitioners that technology is a crucial factor in ensuring the digital transformation's effectiveness. The article identifies the reasons for the limited level of readiness of contemporary organizations for digital transformation, highlighting the role of the organization's soft components.

**Design/methodology/approach** – Addressing the complexity of digitizing phenomena, the article presents the role of organizational culture, digital leadership and digital competencies in organizational transformation processes.

**Findings** – By emphasizing the significance of an organization's soft components in the context of digital transformation, we suggest that while technological advancement constitutes a crucial aspect of this process, it is not the mere implementation of technological solutions that is paramount to its efficacy. The crux of the matter lies in the transformation of soft management factors, encompassing the provision of digital leadership, the cultivation of digital competencies and the establishment of a digital organizational culture.

**Originality/value** – While digital transformation ultimately necessitates action in the area of infrastructure, the advantages of transformation will only be fully realized once an adequate level of maturity has been attained in an organization's soft components. Although some researchers propose that the initial step in the digital transformation process should be to establish a digital organizational culture and subsequently develop digital capabilities, we present an alternative approach. It suggests that the establishment of digital leadership should initiate the development of the required digital competencies, which, when combined with digital leadership, will force a transformation of the organizational culture.

**Keywords** Digital transformation, Digital leadership, Digital competencies, Digital organizational culture

**Paper type** Viewpoint



Central European Management Journal
Vol. 33 No. 2, 2025
pp. 219-231
Emerald Publishing Limited
e-ISSN: 2658-2430
p-ISSN: 2658-0845
DOI 10.1108/CEMJ-11-2024-0346

## Introduction

The building of knowledge-based competitive advantage (Cheng *et al.*, 2023), the need to design organizational structures for innovation (Gradillas & Thomas, 2023), the greening of operations and emphasis on sustainability (Charfeddine & Umlai, 2023) and the continuous evolution of digital technologies in all dimensions of organizational functioning (Barker, Luger, Schmitt, & Xin, 2024) force us to rethink the construction logic of the business models used. In a dynamic business environment characterized by high levels of volatility, uncertainty, complexity and ambiguity, which we refer to as VUCA (Moccia, Zhao, & Flanagan, 2020), the ability to adapt efficiently, coupled with process optimization and information processing capabilities, becomes a crucial factor in ensuring the organization's survival and growth (Cegielski, Allison Jones-Farmer, Wu & Hazen, 2012; Kurniawan, Budiastuti, Hamsal & Kosasih, 2021; Salunkhe, Rajan, & Kumar, 2021; Struijk, Angelopoulos, Ou, & Davison, 2023). Research suggests that to ensure that organizations are up to date and able to adapt to a changing environment, managers need to firmly embed organizational operations in digitalization processes (Cheng *et al.*, 2023; Pfaff, 2023; Barker *et al.*, 2024).

Nevertheless, the widely held view among management practitioners that technology is a crucial element in ensuring the efficacy of digital transformation does not fully align with empirical evidence. Although the significance of leveraging advanced technologies to guarantee an adequate level of digital transformation effectiveness is indisputable (Jones, Hutcheson & Camba, 2021), we must recognize that technology is a consequence rather than a prerequisite to actualizing the potential of digital transformation. Digitization's success is contingent upon the effective transformation of an organization's soft components. Findings by Zhang and Chen (2023) confirm this. They highlight that while digital transformation offers advantages for organizational growth, we must consider its potential consequences, including the conversion of existing and emerging human resource management systems. Furthermore, Jones *et al.* (2021) highlight that digital transformation, which enables organizations to adapt to the rapid pace of change in a globalized society and economy, necessitates a shift in the mindset of individuals and collective organizations. Similarly, Leal-Rodríguez, Sanchís-Pedregosa, Moreno-Moreno, and Leal-Millán (2023) emphasize the importance of adapting to the archetype of a digitally oriented culture to achieve digital transformation. Zhen, Yousaf, Radulescu, and Yasir (2021) suggest that a firm's ability to manage the optimal utilization of technological resources in the innovation process is enhanced by a digital organizational culture that facilitates adaptation to emerging technologies.

To understand the rationale behind the necessity to value the importance of the soft components of the organization in the digitalization process, it is essential to acknowledge that although digital transformation necessitates action in the area of infrastructure, the benefits of transformation will only be able to be discounted once an appropriate level of maturity has been reached. In turn, this level of maturity will link to the necessity of changing the mindset of individuals and providing appropriate organizational solutions. Kocak and Pawlowski (2023) posit that extant organizational and cultural impediments constrain the potential of digital transformation. Research by Gong and Ribiere (2021) indicates that effective digital transformation necessitates the alignment of strategy, people, organizational culture, mindset, talent development and leadership. Jones *et al.* (2021) posit that the successful execution of the transformation process necessitates the implementation of strategic initiatives that extend beyond the mere addition of technology to the production line. Moreover, when initiating a digital transformation, it is crucial to consider that modifying employee attitudes will inevitably result in a transient decline in organizational effectiveness due to the emergence of resistance to change (Warrick, 2023) and the increased burden on the management system of learning and forgetting activities (Kang, Turi, Bashir, Alam & Shah, 2021). To mitigate the potential risks associated with digital transformation, which may lead to a decline in organizational effectiveness and an increase in disruption of the management system, it is essential to ensure the right organizational culture that receives support from digital leadership and facilitates the development of digital competencies.

This article contributes to the ongoing discourse on the factors that shape the efficacy of digital transformation. By highlighting the role of the soft components of an organization in the digital transformation process, we suggest that, while digitalization requires changes in the realm of technology, it is not so much the implementation of technological solutions that is critical to its effectiveness. Instead, the crux of the matter lies in the transformation of the soft organization components, encompassing the provision of digital leadership, the cultivation of digital competencies and the establishment of a digital organizational culture.

**Digital leadership**

The increase in sales and performance, higher level of innovativeness translating into value creation, new forms of interactions with consumers, strengthening the customer experience through online shopping, and improvement in recruitment processes are just some of the benefits of a successful digital transformation. As a result of this digital revolution, leaders face new challenges in the organizational setting, such as the increased pace of doing business; the shift in organizational culture, mostly from preserving the existing status quo to making fast changes; the need for a flexible and shared workplace and higher performance expectations (Kane, Phillips, Copulsky, & Andrus, 2019). These challenges require leaders to extend some of their traditional skills and behaviors to excel in the digital era (Bresciani, Ferraris, Romano, & Santoro, 2021). Leaders who can adapt to the new organizational setting by exploiting digital skills can easily capture the changes in organizations and quickly identify new opportunities in the environment (Erhan, Uzunbacak, & Aydin, 2022).

Digital leadership facilitates organizations' survival in the new digital era by adapting and transforming existing business strategies (Araujo, Priadana, Paramarta, & Sunarsi, 2021). To effectively guide the digital business transformation, contemporary leaders need to use and orchestrate an organization's digital assets. However, many organizations do not understand the value behind digital leadership, which leads to poor performance.

As the digital disruption caused by the COVID-19 pandemic and the accelerated digitization of workplaces have influenced traditional leadership, the concept of digital leadership has evolved. Initially, scholars referred to it as e-leadership (involving both the combination of technology and traditional communication as well as the simple use of ICT-mediated communication (Van Wart, Roman, Wang, & Liu, 2019)) or virtual leadership (integrating portable and ever-changing technology with leadership methods and making it different from the traditional one (Vahdati, Seyyed Naghavi, Vaezi, & Sharifzadeh, 2023)), as it analyzed how to lead people when they were not physically together but collaborated and interacted through IT technologies to generate creative ideas and develop innovations (Ben Sedrine Doghri, Horchani, & Mouelhi, 2020). Scholars saw this leadership shift from conventional to digital as a new phenomenon resulting from the compulsory digitalization of the workplace and the possibility of doing work remotely. Scholars have finally portrayed the image of digital leadership enriched with such phenomena as digital transformation, online work, virtual teams, dynamic capabilities, empowerment, agility, work–life conflict, work engagement, stress management and creativity for value creation (Tigre, Curado & Henriques, 2023).

We may view digital leadership as blending traditional and new leadership skills to effectively guide organizations into the future (Kane *et al.*, 2019). Leaders in the digital era have different abilities and perspectives compared to traditional leaders; they need to encompass traditional leadership behaviors, blend them with crisis-born behaviors and combine them with new skills. Specifically, this means developing the ability to articulate the vision, inspire employees, educate them toward independence, transform the whole organization (traditional), care about employee well-being, health and security (crisis-born, especially the COVID-19 crisis), enable digital maturity, attract the best talents and bring out the best of the attracted talents (Kane *et al.*, 2019), develop agility in work influenced by environment turbulences as well as recognize volatile areas for opportunity identification in

the digital era (new skills). Hence, digital leadership becomes a type of organizational capability aimed at agile value creation based on both internal and stakeholder-controlled resources (Pomffyova, 2018). We may view digital leadership, like digital transformation, as a process that involves all the organization's members and develops leadership competencies throughout the entire organization (Hensellek, 2020). At the same time, digital leadership needs to be more decentralized and use collective competence and organizational wisdom (Petry, 2018). New digital services like smart contracts unburden digital leaders from formal tasks and open up the opportunity to implement collaborative business models with distributed common-pool resources requiring sophisticated cooperation skills in cross-organizational structures (Philipp, Prause, & Gerlitz, 2019; Gunnar & Hoffmann, 2020).

Therefore, we may understand digital leadership as guiding the organization's digital approach by strategically using the company's digital assets and emerging technologies (Wright & Ritter, 2015) to flexibly adapt the organization to changes in the environment so it can quickly identify and exploit opportunities that will create value and translate into innovations increasing firm performance (Dyduch, Chudziński, Cyfert, & Zastempowski, 2021).

Scholars have indicated some interesting digital leadership skills as significantly influencing leaders' work in the digital era (Kane *et al.*, 2019): (1) transformative vision and forward-looking perspective, (2) digital literacy, (3) adaptability and (4) developing digital leadership as a dynamic competence. Indeed, researchers have found that the organizational dynamic capabilities (which are the organizations' ability to integrate, build and reconfigure their competencies to meet and anticipate the challenges of a rapidly changing business environment (Teece & Pisano, 1994; Teece, Pisano, & Shuen, 1997) influence the digital transformation and improve the superior organization performance. Digital leadership plays a significant role in the workplace's digital transformation as well as employee performance (Chatterjee, Chaudhuri, Vrontis, & Giovando, 2023), as it influences business model innovation, dynamic capability and innovation management (Mihardjo, Sasmoko, Alamsjah, & Elidjen, 2019). With promising results on company performance, there are attempts at operationalizing digital leadership (Abbu, Mugge, Gudergan, Hoeborn, & Kwiatkowski, 2022).

With the digital disruption, the question arises: whether we should define contemporary leadership from scratch. There is no such necessity. The skills and competencies embracing agility, flexibility, alertness to signals coming from the environment, the ability to exploit opportunities before competitors and translating these opportunities into innovations that will create value are at the heart of the leadership.

However, the new element is the resources type, i.e. digital resources and IT technologies that leaders need to manage, orchestrate and use to transform organizational business models, strategies and cultures. Another new element that has emerged as a post-COVID-19 pandemic phenomenon is a slightly different approach to employees. It transformed from an inspirational, motivational and performance-centric approach to a well-being, secure workplace and creativity-centric approach (Chudziński, Cyfert, Dyduch, Koubaa & Zastempowski, 2023).

Analyzing the presented views, we describe digital leadership from the perspective of two basic levels. The first level, i.e. operational, refers to leadership in virtual teams considered in the literature both from the perspective of leaders' competencies (which is also discussed later in the article) as well as desirable leadership styles, phases of team building and determinants of success. In this context, one can get the impression of a kind of déjà vu, questioning whether we are not witnessing a reopening of a discussion that has already occurred once in management and is now taking place, only in a changed context. Level two is strategic leadership directed at transforming the organization. In this layer, though the discussion may feel like a repeat, it becomes much more interesting. Of course, good leadership is a prerequisite for effective change. However, the challenges facing more than just business or the public sphere today are disruptive (as evidenced, for example, by the pace of AI development and the prospect of the emergence of Level 5 AI and then AGI). This will lead to growing problems of fear of change and, consequently, potential strong change resistance.

**Digital competences**

From the perspective of the theory of change, we should regard digital transformation as a substantial disruption. This is because it necessitates critical changes in ITC and the acquisition and development of new resources, which in turn leads to a significant overload on employees and the organization as a whole (Chwiłkowska-Kubala, Cyfert, Malewska, Mierzejewska, & Szumowski, 2023). This implies that digital transformation presents a strategic challenge to organizational leaders, who, with constrained resources and the necessity to sustain existing business activities that should generate sufficient revenue, must develop and alter core competencies that facilitate the transformation of the employed business models (Firk, Hanelt, Oehmichen, & Wolff, 2021; Nadkarni & Prügl, 2021).

Research cannot overlook the significance of tangible IT abilities and expertise, encompassing agile management, BPM, cloud computing, cybersecurity, emerging technologies, data management and robotic process automation in the context of digital transformation (Andriole, 2018; Lee & Meng, 2021; Trieu, Nguyen, Tran, Vrontis, & Ahmed, 2024). Digital transformation goes far beyond the digital technologies. It necessitates the development of soft competencies to enhance organizational resilience, facilitate adaptive organizational operations in response to environmental volatility, and, most crucially, mitigate resistance to change. Soft competences, which are pivotal to digital transformation (Blanka, Krumay & Rueckel, 2022), not only directly influence the flow of information but also as a consequence of interaction with other participants and knowledge sharing, indirectly impact the efficiency of organizational functioning, innovation activity and optimization of activities within the organization. The advancement of digital competencies, which guarantees the acceptance and openness of activities and enables employees to participate effectively in the digital transformation process (Kocak & Pawlowski, 2022), requires conducting in conjunction with three interrelated levels: the employee level, where the optimal use of resources is sought within the organization, the managerial level, controlling the other two levels and the managing flows between them and the organizational level, seeking to exploit opportunities in the environment and ensure the organization's stable development.

Scholars consider the presence of employees with the requisite digital competencies to be a prerequisite for successful digital transformation (Schlegel & Kraus, 2023). Emphasizing the importance of employees' digital competencies, Abedin and Babak (2021) suggest that organizations need to shape employees' digital transformation competencies to create a strong cultural foundation to navigate constant change and dynamically adapt to a turbulent environment. The observation that employees' innovative digitalization behaviors impact company performance allows for the distinction of two key categories of employee transformation competencies: intrapersonal competencies and digital competencies that drive digital transformation (Blanka *et al.*, 2022). Nevertheless, the efficacy of these competencies depends on the development of essential digital competencies pertaining to collaboration within work teams and intra- and extra-organizational communication, in addition to knowledge management and problem-solving abilities. These competencies, which are cross-cutting, are inextricably linked and, through the interactions that employees engage in within organizations, result in a cumulative enhancement of competencies at both the employee and organizational levels.

Leaders' digital competence acts as a mediator between the employee and organizational levels, guiding the transformation processes and reinforcing activities deemed relevant and valuable in terms of the transformation's impact on organizational performance at both the employee and organizational levels. Leaders play a key role in shaping attitudes, beliefs and cultural values while developing new ideas. To do this effectively, they should build eight digital competencies: adaptability, the right attitude, communication, data-driven decision-making, empowerment, quick failure, experimentation, open-mindedness, risk-taking, trust, basic technical knowledge and vision (Imran, Shahzad, Butt, & Kantola, 2021). Leaders' digital competencies differ from those of employees in that they focus on business decisions and activity management (the intrapreneurial competencies developed at the employee level

relate more to the optimal use of the resources at one's disposal and are inward-facing, while the competencies related to business decisions relate to actively seeking opportunities in the environment and consequently are outward-facing), while they differ from those of organizations in that the competencies at the organizational level are meta-competencies and are directed at matching the organization to the environment.

Digital transformation competencies at the organizational level, as dynamic capabilities, help organizations adapt to change by integrating, building and reorganizing processes. This also strengthens their resilience in an unpredictable business environment. Hence, Wahl and Prause (2013) advocate an emphasis on strategic management in leadership to improve the organization's resilience by aligning a business's structure, culture and resources, comprising the business's assets and capabilities, with the opportunities and threats in its environment.

The relevance of an organization's digital competences is indisputable (Konopik, Jahn, Schuster, Hoßbach, & Pflaum, 2022), and it would be impossible to conduct a full digital transformation without their use. However, attempts to optimally shape them require facing some kind of paradox. In principle, authorities should direct actions at the level of digital competence of an organization toward exploiting opportunities in the environment. However, the resources that an organization has at its disposal and to which it potentially has access represent a limiting factor for the scope of change. Consequently, organizations with certain resources should adapt their culture, mindset and competencies to the new digital way of working intended or developed in the organization rather than to technological trends or disruptive innovations (Murawski & Bick, 2017). Noteworthy, in certain business and environmental conditions, the use of them will not be possible.

Chwiłkowska-Kubala *et al.* (2023) suggest that sufficient financial or technological resources do not guarantee an organization's success in digital transformation. There is a need for organization-wide competencies, which we may refer to as digital readiness. These unique organizational capabilities consist of customer focus, value, cooperation and management based on communication and collaboration. The sum of these competencies also determines the organizational culture, which, in the context under discussion, we can describe as a digital culture.

## Digital organizational culture

In the classical approach, scholars define organizational culture as a system of organizational values, core assumptions, expectations, collective memories and key definitions (Cameron & Quinn, 2011). Referring to the desirable attributes of organizations in digital ecosystems, i.e. virtuality, distributedness, agility, dynamism, autonomy and empowerment of individuals and teams (Del Giudice *et al.*, 2021; Guo *et al.*, 2021; Mubarik *et al.*, 2021; Marchese, Gastaldi, & Corso, 2023; Zastempowski & Cyfert, 2023), one may question whether referring to organizational culture defined in this way is justified. Evidently, the logic underpinning the establishment of digitally mature organizations is predicated on a distinct set of assumptions when compared to that of classical organizations. However, it is crucial to acknowledge that rejecting the concept of organizational culture as the dominant ideology created and used by the participants in the organization would lead to the disappearance of a sense of community within the organization, accompanied by a marked degree of dispersion and autonomy of teams. This would lead to the disintegration of the organization. This means that digital organizational culture should still be characterized by reference to the artifacts, beliefs, values and basic assumptions, which differ in visibility and observability (Malewska, Cyfert, Chwiłkowska-Kubaka, Mierzejewska, & Szumowski, 2024). However, digitization gives new meaning to both the components of organizational culture and the relationships between them.

We may define the concept of digital organizational culture as a set of shared assumptions and a general understanding of organizational practices in a digital context (Duerr, Holotiuk, Beimborn, Wagner German, & Weitzel, 2018). It emphasizes the importance of fostering digital awareness, the attitudes of organizational participants toward new technologies and a

continuous focus on digital prioritization (Leso, Cortimiglia, & Ghezzi, 2023). Ensuring an appropriate level of digital awareness not only fosters increased trust in technology but also allows for greater exploitation of the potential afforded by digitalization. Digital awareness, backed by leadership, relies on developing digital competencies and remains key to organizational culture. It fosters authenticity, helping employees grasp digital transformation's importance and sparking new ideas and business opportunities (Albahri *et al.*, 2023). Another component of organizational culture that requires strengthening in organizations operating in digital ecosystems is openness, which promotes experimentation (Leal-Rodríguez *et al.*, 2023), customer-centered thinking (Leso *et al.*, 2023) and the development of collaborative work environments (Grover, Tseng, & Pu, 2022). The fostering of an open organizational culture, which involves employees in decision-making processes and encourages collaboration, enables the maintenance of consistent values and cultural identity despite the dispersion of employees and the rise of autonomy and empowerment. Melanie Pfaff, Judith Wohlleber, Münch, Küffner, and Hartmann (2023) posit that digital transformation, which necessitates a departure from conventional managerial practices, has led to a shift away from authoritarian decision-making by managers, top-down communication and inflexible reporting structures. This has led to an increased emphasis on collaboration over individual effort, necessitating a revaluation of collectivism, femininity, permissiveness and long-term orientation.

The relationship between organizational culture and digitalization is complex and nonlinear, with cultural issues within organizations frequently identified as the biggest barrier to digital transformation (Leal-Rodríguez *et al.*, 2023; Velyako & Musa, 2023). Noteworthy, several variables, both internal and external to the organization, influence the relationship between organizational culture and digitization. While the success of digitization depends on the application of an appropriate organizational culture (Melanie Pfaff *et al.*, 2023), digitization fundamentally changes the structures and business processes as well as how people interact within the organization, and as a result, the organizational culture changes. Nevertheless, some researchers have identified that organizations successful in transformation processes can adapt their culture to align with the assumptions of the digital strategy they intend to pursue (Nasiri, Ukko, Saunila, & Rantala, 2020; AlNuaimi, Kumar Singh, Ren, Budhwar, & Vorobyev, 2022; Grover *et al.*, 2022; Melanie Pfaff *et al.*, 2023). This reciprocal relationship justifies an investigation into the sequence of events in the digital transformation–organizational culture relationship. Grover *et al.* (2022) highlight that a significant factor contributing to the failure of digitalization is the insufficient acknowledgment of the pivotal role of organizational culture. Leso *et al.* (2023) reach a similar conclusion, emphasizing that the failure to embed digital transformation processes in organizational culture will prevent it from being successful. AlNuaimi *et al.* (2022) also suggest that the digital transformation process is made possible by promoting digital culture. Velyako and Musa (2023) highlight the role of organizational culture as a potential enabler or constraint in the context of digital transformation. In light of the aforementioned observations, we can posit that the initial actions should be changed within the organizational culture. The successful implementation of these changes will serve as the foundation for a successful digital transformation. Therefore, regardless of how organizational culture evolves in response to digitalization, we should see it as a precursor to digital transformation.

## Conclusions

Are we ready for digital transformation? The answer is clear: we are not, and it is unlikely that we will ever be. However, to remain competitive and survive, organizations must ensure an appropriate level of responsiveness and resilience to digital disruption (Skog, Wimelius, & Sandberg, 2018; Zaki, 2019) that will help companies transform their business (Ghosh, Hughes, Hodgkinson, & Hughes, 2022). As a holistic sociotechnical challenge that extends well beyond the digital technologies employed (Konopik *et al.*, 2022), digital transformation

requires organizations to confront the classic paradox of change management and avoid the pitfall of perfectionism. On the one hand, the dynamics of the environment require the rapid implementation of new digital solutions that challenge adaptation and innovation, primarily through the process of creative destruction of existing organizational processes and structures (Naimi-Sadigh, Asgari, & Rabiei, 2022). However, an excessive pace of change implementation, which is not preceded by the appropriate modifications in the soft areas of the organization, most often results in inefficiency in the management system and the rejection of changes in technology. In turn, this represents a significant risk to the organization's continued existence, given the relatively high costs involved in implementation. On the other hand, evidence from management practice indicates that an excessively protracted digital transformation process leads to the loss of the validity of implemented solutions and the destruction of the basis of competitive advantages. Moreover, we must also bear in mind the variation in the rate of change between technology, individual technology adoption and the organization's ability to adapt to these changes, leading to a stratification of digital transformation processes (Kane *et al.*, 2019).

To break the cycle of ineffective change implementation, it is important to understand that while time is a key factor (since digital transformation is a radical institutional change, AlNuaimi *et al.*, 2022), the introduction of new digital technology – the final step in the transformation – should come after aligning and digitizing leadership, skills and culture, which are major barriers to successful digital transformation (Naimi-Sadigh *et al.*, 2022).

This is where the aforementioned excellence pitfall becomes evident. The aspiration to prepare and implement optimal solutions in the domains of leadership, competence and culture will preclude the digital transformation process from ever entering the technology implementation phase, as the solution developed will invariably be imperfect and will necessitate adjustments. Therefore, it is essential that at the pre-project study stage, the leaders define a satisfactory minimum in terms of the assumptions and effectiveness of the solution to be implemented. Furthermore, the design of the changes' schedule must be rational so that, on the one hand, the management system can fully absorb them and, on the other hand, they are not unduly prolonged. While some researchers (Kane *et al.*, 2019; Velyako & Musa, 2023) suggest that the initial action in the digital transformation process should be to establish the culture of the digital organization, followed by the formation of digital capabilities, we present an alternative approach. Research indicates that the hypothesis that digital transformation will be initiated from the bottom up by modifying organizational culture is "romantic and intuitive" but not realistic (Frankiewicz & Chamorro-Premuzic, 2020). Consequently, the present concept posits that the primary phase in the digital transformation of an organization should be the establishment of digital leadership, wherein future-oriented leaders with a clearly defined vision of transformation initiate the development of the requisite digital competencies at the employee, managerial and organizational levels. This action necessitates the identification of the competency gap and the implementation of measures to address it. The integration of these competencies with digital leadership is expected to catalyze a transformation in organizational culture, thereby facilitating the formation of a digital organizational culture that is oriented toward collaboration, experimentation and continuous learning. This digital organizational culture, which is designed to directly modify the mindset of employees and indirectly enhance the resilience, flexibility and adaptability of the organization, is anticipated to provide substantial support for the implementation of digital transformation. It is also important to consider that the development of digital competencies or the modification of organizational culture cannot be achieved by simply attempting to convince employees of the advantages of digitalization (Rodríguez-González, Madrid-Guijarro, & Maldonado-Guzmán, 2023). Rather, it should be a systematic process implemented at all management levels that will support and promote a digital mindset for successful digital transformation based on programs and training that support agility and adaptability. Concurrently, leaders must implement strategies that mitigate the adverse impact of technostress by cultivating heightened emotional awareness (Ertiö, Eriksson, Rowan, & McCarthy, 2024).

The proposed model for implementing digital transformation is relevant to both academia and management practice. From an academic perspective, the article puts forward a new proposal for an integrated approach to the implementation of the digital transformation process, emphasizing the role of organizational culture, digital leadership and digital competencies in organizational transformation processes. From a management practice perspective, our proposal aims to raise awareness among managers of the importance of digital leadership in initiating the development of the necessary digital competencies, which, when combined with digital leadership, will drive organizational culture transformation. We acknowledge the limitations of our proposal, which we believe future research can address. Our proposed model for implementing digital transformation is conceptual in nature. To validate the model, future research should analyze case studies of companies that experiment with digital technologies to strengthen their competitive position. This would also broaden our understanding of the issue of digital transformation and substantiate the claims proposed in the adopted framework. A limitation of the digital transformation implementation model is its one-size-fits-all nature. A body of extant research suggests that organizations with higher levels of digital maturity are more likely to use modern digital technologies (Naimi-Sadigh *et al.*, 2022), suggesting that the relationships between the constructs incorporated in the model may vary in nature or intensity. Furthermore, the industry or demographic characteristics of leaders, such as gender, age, personality, education or experience, may play an important role in digital transformation processes. Consequently, we believe that future research should test the impact of these variables to reveal relevant industry and policy findings.

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