



CORPORATE EDUCATION FOR THE PROCESS OF DIGITAL TRANSFORMATION

EDUCAÇÃO CORPORATIVA PARA O PROCESSO DE TRANSFORMAÇÃO DIGITAL

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Abstract

The research aims to analyze the contribution of corporate education to the digital transformation process based on a qualitative case study in a service company in the management software segment. The main results show the mapping of EC contributions to DT. Regarding managerial contributions, opportunities for improvements for the company stand out, such as: inclusion of impact indicators and measurement of results of actions promoted by the company's CE to contribute more efficiently to the DT process; and the use of gamification in qualification courses, transforming them into dynamic materials to disseminate DT concepts.

Keywords: Corporate education. Digital transformation. People management.

Resumo

A pesquisa objetiva analisar a contribuição da educação corporativa para o processo de transformação digital a partir de um estudo de caso qualitativo em uma empresa de serviços do segmento de software de gestão. Os principais resultados mostram o mapeamento das contribuições da EC para a DT. Quanto às contribuições gerenciais, destacam-se oportunidades de melhorias para a empresa, tais como: inclusão de indicadores de impacto e mensuração de resultados das ações promovidas pelo CE da empresa para contribuir de forma mais eficiente para o processo de DT; e a utilização da gamificação nos cursos de qualificação, transformando-os em materiais dinâmicos de divulgação dos conceitos de DT.

Palavras-chave: Educação corporativa. Transformação digital. Gestão de pessoas.

Introdução

The Digital Transformation (DT) process represents a change in business behavior and, as such, must involve employees and generate impacts on processes and the company's structure itself (Pereira, 2019; Feroz *et al.*, 2023). However, many companies fail in this process by focusing on just one part of this journey, disregarding significant structural changes. In this context, it is worth highlighting the crucial role of managers as promoters of DT (Porfírio *et al.*, 2021). Organizations must develop a vision focused on DT (Li *et al.*, 2021), as the insertion of DT in companies is a joint task of all parties, the people management sector, responsible for planning, operationalizing, and evaluating the process of Corporate Education (CE) for employees.

Employees must rethink the current work model, looking for alternatives that are more in line with the new context, even as a measure to maintain their jobs. In addition to thinking about new ways of working in search of operational efficiency and identifying business opportunities, it is necessary to understand how prepared organizations are and learn from DT. More than promoting isolated knowledge practices in the organization, it is necessary to create a culture of learning and process acceleration, in which everyone shares and evolves in the same direction, in a sustainable evolution, aligned with the skills of the future of work and the transformation of the organization (Silva, 2021; Buck *et al.*, 2023).

CE is a fundamental element for the development process of organizations in a society in which people's intellectual growth and creative potential have become strategic factors (Pudovina *et al.*, 2020). The adoption of techniques and methods to promote CE has ensured the development of intellectual capital and the financial sustainability of organizations (Buryakov *et al.*, 2019). Processes that accelerate development, such as DT, directly impact CE and the need for organizations to keep their employees up to date. Employees need constant qualification on new trends and technologies so that they can keep up with changes, which occur at an increasingly accelerated speed (Andriushchenko *et al.*, 2022), with DT being one of these changes. Therefore, this study proposes the following research question: How does corporate education contribute to a company's digital transformation process?

Corporate education

Due to the need to constantly update information, companies develop learning programs with the aim of ensuring their employees develop the skills necessary to fulfill their functions (Fonseca *et al.*, 2018). Toledo and Domingues (2018) believe that education becomes a fundamental resource for organizations to work with the degree of modernity, innovation, and competitiveness that is required due to the globalized business situation.

CE emerged as a differentiator for organizations, with the aim to enhance the level of learning, training, updating, and knowledge of the organization. Since CE can contribute to the creation of competitive advantage for organizations, people management strategies need to be reviewed, enabling educational actions to be based on the development of an organizational culture that involves its employees in business sustainability (Pereira, 2019; Buryakov *et al.*, 2019).

According to Vieira and Francisco (2012, p. 296), “[...] CE is based on a broader perspective, and its challenge is to create a new culture, in which education is a process inherent to every form of education. of work, at any level of the organization”. Organizational strategies and CE need to be aligned for cultural change to happen. This process also requires a change in attitude from the people involved.

To Toni and Alvares (2016), CE is seen as a continuous learning dynamic focused on developing the skills necessary for the organization and the transfer of knowledge. It is assumed that the company must adopt the concept of competence to articulate and integrate people management policies and practices, aligning individual competencies with the organization's essential competencies.

According to Baumgartner and Casarini (2012), the involvement of business leaders and the HR area are seen as the watershed between a thriving CE sector and a project whose result was unsatisfactory. The HR sector and leaders must be able to use the system as a powerful tool to enable business strategy. In this way, it permeates the entire organizational culture and is part of the organization's daily life, based on the premise that education is also practical.

To Martins (2004), CE units have physical space more as a concept than a reality. Pedagogical strategies can occur through face-to-face, distance, or blended learning. According to Eboli (2004), the 'location' can include the possibility of being a virtual project and not necessarily a physical location, and the 'result' is an increase in business competitiveness and not just individual skills. Meister (1999) highlights that the desired result from the Corporate University (CU) is no longer the completion of a formal course (as occurred in training departments) but rather 'learning by doing', that is, developing the ability to learn, and continue this process, when you return to work.

To consolidate CE in organizations, we need to disclose its benefits through indicators that show the interference of educational practices with the organization's results. To this end, it is considered essential to establish the relationship between investments in CE and the company's business results. There is evidence that, even though it is aligned with corporate objectives, the CE needs to clearly highlight, preferably through indicators, the contribution to achieving the expected economic results (Miranda & Filho, 2016).

Meister (1999, p. 35) highlights that CE is "[...] a strategic umbrella to develop and educate employees, customers, suppliers, and the community, in order to fulfill the organization's strategies". The same author emphasizes that, instead of waiting for schools to make their curricula more relevant to the business reality, companies should go the other way and bring the school into the company. Toni and Alvares (2016) consider it relevant to know the contribution and potential of CE in a scenario in which organizational intelligence, constituted by knowledge capital and professional skills, represents one of the great drivers of competitiveness, innovation, and business sustainability.

Felix (2020, p. 38) highlights that "[...] knowledge transforms the organization into an environment of continuous learning and possibilities". Meister (1999) reinforces that corporate education is seen as an evolutionary process in People Management, workforce improvement, and strategic management of education and training.

To Eboli (2004, p. 62), "[...] the adoption of a strategic educational system, along the lines of a corporate university, is an essential condition for companies to develop their human talents effectively". The positive impact on business results that come from the adoption of these strategic and competitive educational systems is the main factor that has encouraged a growing interest in the topic in the corporate and academic world.

The consolidation of the institutional CE process provides necessary support in the process of transforming the organizational context and personal and professional development, supporting the construction and development of the skills necessary to improve activities relevant to the organization. In this sense, we can see alignment with Felix's reflection (2020, p. 35), according to which "collaborators who are motivated and engaged in a purpose carry out their profession with more ease and confidence".

The identification and adoption of organizational practices that allow work to be performed more efficiently and quickly has been a constant concern in organizations (Eboli, 2004). In this sense, it is no coincidence that companies interested in CE projects make efforts to map their critical competencies and invest in knowledge management.

CE plays a vital role in a company's routine. It ranges from reconciling a set of continuous educational strategies with employees, whether through dynamics, games, sales theaters, or daily motivational

activities, among others, acting directly on the development of skills that generate productivity and employee satisfaction through more dynamic methods, with objectives and goals (Felix, 2020).

Even though CE has the main objective of “institutionalizing a culture of continuous learning, providing the acquisition of new skills linked to business strategies” (Ribeiro & Santos, 2010), the benefits gained, in addition to helping to grow the company’s competitiveness in the market with increasingly competent professionals, are also evident in personal development.

Corporate education and digital transformation

DT is a process that aims to improve organizations by driving significant changes in their properties through a combination of information, computing, communication, and connectivity technologies (Vial, 2019; Buck *et al.*, 2023). According to Brynjolfsson and Hitt (2000) and Feroz *et al.* (2023), DT encompasses the structuring of new business operations to facilitate and leverage the core competence of organizations using digital technology.

The adoption of new digital technologies such as social media, mobile devices, analytics, or embedded devices can enable business improvements such as enhancing the customer experience, optimizing operations, or creating new business models (Fitzgerald *et al.*, 2014). In this context, DT is understood as the change in the way companies use these digital technologies to increase the offer of value to the market (Verhoef *et al.*, 2021).

DT drives changes in business models due to technological advances and innovations resulting from new social and consumer behaviors (Carlos, 2020), but it is not just about implementing new technologies (Koeleman *et al.*, 2019).

Having higher levels of maturity in organizations is essential for HR to deliver the competitive advantages that the company needs. In the DT Era, knowledge has become a fundamental asset, even more than material and financial resources. In this scenario, the ability to understand it and use skills to provide services, deliver products, and develop effective strategies is more critical than at other times when the amount of capital invested determined the success of the business (Gptw, 2021). Furthermore, DT has changed the context in which companies operate in relation to the agility and availability of information.

Digital technologies offer more andragogical opportunities (the art or science of guiding adults to learn) in the corporate environment, managing to reconcile educational practices and working hours and promoting an environment of constant learning (Silva, 2021).

The DT process is intrinsically uncertain: changes need to be made provisionally and then adjusted. Decisions need to be made quickly, and all sectors of the company need to be involved (Tabrizi *et al.*, 2019; Hauke-Lopes *et al.*, 2023). When employees realize that DT may threaten their jobs, they may, consciously or unconsciously, resist change. If DT proves to be ineffective, management will end up abandoning the venture, and their jobs will be ‘safe’. Tabrizi *et al.* (2019) state that it is essential for leaders to recognize these desires and emphasize that the DT process is an opportunity for employees to improve their knowledge and adapt to the market of the future.

One of the solutions for applying CE in the DT process that companies are implementing, according to Silva (2021), is investment in projects with innovation and technology solutions that work to increase and launch new products/services. Companies can use tools such as gamification, virtual reality, and Industry 4.0, among others, in their selection processes, demonstrating the search for new talent for a digital trajectory.

From this perspective, Fernandes *et al.* (2019) highlight the relevance of organizational culture, which can directly impact the performance of companies in the digital era. Rapid and continuous technological innovations are driving changes in organizational systems and processes. Many organizations take time

and effort to accept contemporary trends, while in others, adoption occurs more quickly and without significant problems. Innovation-oriented leadership and management skills are considered critical factors in any successful change initiative.

The aggregation of an interactive workspace, which allows the flow of knowledge between teams, as well as the management of information that facilitates agility in decision-making and interaction with managers and data transparency are considered relevant aspects for the context of including people in the companies' DT process (Fernandes *et al.*, 2019). One of the skills required by any organization that wants to survive and prosper in this new era is continuous learning. Companies will increasingly need to be more aligned with the demands of all stakeholders.

We understand that communication and leadership alignment are essential to keep values and purpose 'active' during DT (Diniz, 2020). The way in which relationships are built at the organizational level is decisive for the receptivity to changes that accompany DT, as the type of relationship should be more fluid, lighter, and less possessive. Therefore, managing employees' capabilities and competencies is one of the crucial actions for transformational processes. However, knowledge about the type of skills needed to carry out the DT process successfully is still scarce (Pereira, 2019; Buck *et al.*, 2023).

One of the main elements necessary for the DT process to be successful is the change in the culture of company employees. It is essential that the CE sector, together with the People Management sector, is part of this change in people's mentality, helping them in business processes. As the role of CE is the growth and development of employees, they need to be able to see the benefits and advantages that DT brings to the company and their lives so that they are not resistant to change. Leaders and managers must emphasize that this process is an opportunity for knowledge to be improved and practiced.

In this way, it is possible to understand that the participation of the CE sector in a company's DT process provides better progress in this development and a more engaged team. Furthermore, we should not just digitize documents and believe that we will achieve DT results, as it is essential to have a change in culture and routine in the company as a whole, creating an environment conducive to the transformation of the skills of individuals and the organization, such as positive elements to achieve the desired result. Digitization and scanning can be considered steps in the DT process (Verhoef *et al.*, 2021), which requires changes in both the organizational structure (Skylar *et al.*, 2019) and the need for agility in this structure. Thus, the CE's ability not only to monitor changes in DT but also to promote these changes highlights the importance of the association between these themes.

In short, the contributions of CE to the DT process include: a) improving communication between company and employee about the advantages and benefits of this transformation, thus having motivated and engaged employees (alignment between individual and business objectives) (Diniz, 2020); b) aggregation of an interactive workspace, which allows the flow of knowledge and information management to facilitate agility in decision making (Fernandes *et al.*, 2019); c) development and management of employees' capabilities and skills (Pereira, 2019); d) effective knowledge management in training and preparing people for DT, as well as in creating and strengthening organizational culture (Fernandes *et al.*, 2019).

Method

A single case study was carried out with descriptive and qualitative characteristics to meet the research objective of analyzing the contribution of corporate education to the digital transformation process.

The study unit chosen for analysis is a service company that has been operating in the business management software market since the 1980s and is always looking for innovation, productivity, integration, and organizational intelligence. The company offers complete Entrepreneurial Resource Planning (ERP), Point of Sale (POS), Customer Relationship Management (CRM), Human Resources

(HR), MOBILE, and Business Intelligence (BI) solutions to more than 5,000 customers with retention rates of 99.98% and more than 90% satisfaction. The company works in partnership with small, medium, and large enterprises and has a staff of 800 professionals distributed in service units throughout Brazil. The central unit is in the metropolitan region of Porto Alegre (Institutional Site, 2022).

The company was selected as a single case study due to two technical criteria. The first is the existence of a structured CE process. The company has had a CU since 2008, with professionals dedicated exclusively to its management. The second criterion is the company's need to go through a DT process. Considering the researchers' accessibility to the company, it was possible to identify that the company was going through this process previously.

The delimitation in the technology sector deserves to be highlighted. While many traditional sectors can delay the adoption of modern technologies, the chosen sector does not have this option. Not keeping up with technological advances directly implies a loss of value offered to the market. DT reveals itself as an imperative in the sector.

The research participants were the leaders (four directors, nine managers, and six coordinators) from the different areas of the company (Product, Services, Market, People Management, and Administrative). The criterion used to include these managers was the fact that they were in direct contact with the planning and control of CE and DT in the company. Nineteen managers who met this criterion were identified. The participation of all these managers was sought, but three were unable to respond to the request for participation. Thus, a sample of 16 employees was obtained; they work in both management and coordination, representing all areas of the company.

A first in-depth interview was carried out with the company's Operations Director to collect empirical data, and the script was prepared with 15 questions. The script began with questions about the participant's profile, with the remaining questions structured based on the theoretical basis of the two subjects: CE and DT. Due to restrictions on the leaders' agenda to be interviewed, we decided to prepare three questionnaires with open questions for the other research participants. The first questionnaire had 12 specific questions about CE and was sent to the HR Manager (R1) via email. The second questionnaire had 13 specific questions about DT and was sent by email to the Marketing Manager (R2). The third questionnaire, consisting of 10 questions in total about CE and DT, was sent by email to the company's other leaders.

After collection, the empirical data were subjected to the analysis and interpretation process, tabulated, summarized, organized, and presented to enable its interpretation in the light of theoretical aspects reviewed *ex-ante* (Gil, 2019). The research used qualitative content analysis, which involves three phases: "pre-analysis; exploration of the material, also called analytical description; and analysis and interpretation of results" (Zanella, 2013, p. 125). The tabulation of the data obtained took place with the help of an electronic spreadsheet, concentrating the information in just one place, keeping it organized, and allowing the creation of tables to present the results. Then, these data were analyzed, seeking to respond to the established objectives relating to the theoretical framework. The following section presents the data and their respective analyses.

Results

The history of the company's Corporate University (CU) was marked by a decisive moment in 2008 when it was realized that training could be a solution for the external community. It was based on this perception that it was decided to launch the CU, consolidating the people training program (Andriushchenko *et al.*, 2022). The investment was justified because, to use the company's product efficiently, it is essential to know it in depth, as highlighted Baumgartner and Casarini (2012), Buryakov *et al.* (2019) and Felix (2020). Therefore, the company continuously invests in qualifications for

employees, partners, and customers. The main objective of the company’s CU is to provide (synchronous and asynchronous) online training about the product for customers (Miranda & Filho, 2016).

The CE department is made up of a team of six professionals, including a Manager, two Education Analysts, two Education Assistants, and a Young Apprentice. These specialists are responsible for developing and organizing educational solutions for the company, counting on the support of professionals from all areas to carry out the training (R1).

To ensure that learning needs are met, the team carries out an annual diagnosis and develops a calendar of activities for the following year. During this process, they meet with representatives from all teams to plan what topics will be covered and when. The calendar is organized by business area and work team, considering the needs of customers and partners identified by the support teams. In addition to planned training, the team can also offer training requested by partners or launch new training to meet the teams’ needs, so the CE must support a continuous learning strategy, setting goals for the organization and adding value to the business. In summary, CE is a fundamental part of the company, ensuring that all employees are always up-to-date and prepared to face market challenges (R1). These practices were evidenced also by Pudovina *et al.* (2020), Silva (2021) and Andriushchenko *et al.* (2022), suggesting them as recommendations for engagement to improve organizational processes and assure competitiveness.

It is essential to highlight that there are still no impact indicators to evaluate the results of CE actions. Although there are process indicators, such as training hours and revenue, it is necessary to disclose the benefits of CE through indicators that show the relationship between educational practices and the organization’s results, as suggest Buryakov *et al.* (2019). As R1 stated, corporate education is fundamental to training qualified professionals, but it is necessary to demonstrate its influence clearly and directly on corporate results. Therefore, it is essential to develop impact indicators that can measure the success of CE actions professionally and objectively (Miranda & Filho, 2016). The absence of indicators makes it difficult to identify whether CE is effectively contributing to transforming the organization into an environment of continuous learning and possibilities (Felix, 2020).

We then proceeded to verify with the research participants what the possible contributions of CE are to favor digital transformation in the company (Table 1).

Table 1 – Contributions of corporate education to digital transformation

Participants	Answers
I1	CE contributes to accelerating the DT process, as it qualifies and develops people for actions and can multiply this training and qualifications while minimizing costs for the company. The CE has the function of promoting a culture of digital business competence so that processes occur more quickly.
R1	CE contributes to training and preparing people for digital transformation, as well as creating/strengthening organizational culture.
R2	In raising people’s awareness of the subject through training and dynamics that demonstrate learning.
R3	It means being forceful in the DT approach focused on the fundamental interests of companies and adapting them to the moment and reality of these companies.
R4	Training and engagement of the parties to make the DT happen.
R5	Helping to clarify the subject of DT, train, and provide conditions by creating a favorable environment for managers and leaders to be able to lead by example and initiatives from top to bottom, making it even easier for the DT culture to be established within the company.
R6	Democratize and disseminate knowledge throughout the organization, providing access to everyone through various tools and platforms.
R7	CE can support and expand the systemic vision of the organization, generating people’s engagement and providing knowledge, skills, and attitudes that give them confidence so that,

	empowered, they can evaluate automation opportunities in the company. Finally, it is whoever can contribute to the dissemination of this culture.
R8	CE can be a tool for in-depth analysis of each person's performance. It can be focused on the individual and complementary development of specific skills and can obtain greater engagement from the work team.
R9	The most significant contribution that CE delivers is the basis for professionals to perform with more outstanding quality in their daily lives.
R10	Engagement. The cyclical recycling of content and culture is also necessary for empowerment.
R11	Encourage and involve employees by talking about DT through courses, meetings, and lectures.
R12	I believe that CE's main contribution is the application of new cultures and processes with continuous learning based on good practices adopted from a DT culture.
R13	The constant challenge to people to make them understand that change is now constant and increasingly rapid.
R14	The CE alone does not carry out DT, but it encourages and fosters everyone's participation in the DT process, whether through presentations or participation events, such as the Suggestion Program or the 24-hour Challenge.
R15	The main contributions are changes, usability, learning, and the dissemination of content and training.

Source: Prepared by the authors.

According to the leaders' perceptions, CE's main contributions to the DT process consist of accelerating the process as it develops, trains, and prepares people, as well as creating and strengthening the organizational culture. This perception is aligned with scientific literature that tackles this topic, highlighting Fernandes *et al.* (2019) and Feroz *et al.* (2023). The engagement of the company's employees often depends on actions that the CE promotes in the day-to-day organizational activities. These notes corroborate Tabrizi *et al.* (2019), who say that organizations work when their leaders focus on changing the mindset of their teams, as well as the culture and business processes, before deciding which digital tools to adopt and operationalize.

From the perception of Toni and Alvares (2016), it is necessary to know the contribution and potential of CE in a scenario in which organizational intelligence, constituted by knowledge capital and professional skills, represents one of the main inducers of competitiveness, innovation, and corporate sustainability.

DT is about empowering people, and for this to happen, engagement and education are necessary, which implies promoting cultural change (R3). To R9, CE is one of the pillars for the development of DT. Therefore, the demand for qualified professionals is growing. Perception of the relevance of the people to adapt organizational processes and practices to help organization to adopt DT was found in theoretical review, specially in Vial (2019) and Tabrizi *et al.* (2019).

An employee's entry point into the company is the CE, which plays a crucial role in providing the necessary support so that they feel motivated and committed to the organization's vision. In recent years, education processes have been reviewed and optimized to meet DT needs, ensuring that resources are available to train employees. In this way, the company understands that it will maintain its professional excellence (R10).

In view of the above, it is possible to state that CE plays a relevant role in employee qualification. With the volume of information and changes that occur daily, knowledge sharing is no longer carried out using manuals in a physical format; it is now carried out through distance learning training, with more dynamic and specific content for absorbing the knowledge (R12). Providing study, research, training, and

knowledge to a company's employees are the main objectives of a CU, what is suggested by Schlemmer *et al.* (2020). It is a process, a mentality that permeates the entire organization and should encourage people to share knowledge considered critical to the company's business, either creating or strengthening an internal and external network of relationships (Eboli, 2004).

CE prepares the environment for DT by raising awareness among professionals, whether in the company's internal or external environment (I1). Baumgartner and Casarini (2012) believe that the involvement of business leaders and the HR area are crucial for the CE program to be successful, as it contributes to the development of the necessary skills of individuals and the organization for DT (R13).

CE contributes to updating and complementing everyone's educational, technical, and academic training, focusing on the strategic, behavioral, and technical aspects of the organization (R4). Pereira (2019) states that there is still little knowledge about the skills needed to carry out the DT process successfully but argues that managing employee skills is one of the essential actions for successful transformational processes. Empathy, resilience, ability to solve problems, innovation, creativity, critical and analytical thinking, and focus on results are some of the necessary skills (R7 and R9). R11 believes that proactivity, agility, communication skills, and initiative are essential and stimulated through internal and external training. These skills, as necessary conditions to be achieve success in implementation of DT was mentioned also by Carlos (2020).

To R8, the main competency is adaptability; that is, people and the organization need to be prepared for changes. Toni and Alvares (2016) see CE as a continuous learning dynamic focused on developing the skills necessary for the organization and the transfer of knowledge. It is considered that the company must adopt the concept of competence to articulate and integrate people management policies and practices, aligning individual competencies with the organization's essential competencies.

From this perspective, the skills that individuals need are creativity and the desire to solve problems and improve existing processes, that is, to think and contribute as an entrepreneur. At the same time, the organization needs to be receptive to new ideas (R14). R10 added that, first, the person needs to be engaged and empowered, and corporate education can contribute. This management model, based on people was highlighted in scientific literature that explores this topic, like Diniz (2020) and Ferreira *et al.* (2020).

The CE can and should contribute to the dissemination of content and sharing of best practices for all individuals in the organization, reinforcing DT's objectives and engaging people in this cause (R6). The consolidation of CE contributes to the effectiveness of changes in organizational processes, constituting a process of personal and professional development supported by the construction and development of the skills necessary to improve activities relevant to the organization (Fitzgerald *et al.*, 2014).

In summary, Table 2 presents the necessary competencies of individuals and the organization for DT, according to the organization's leaders:

Table 2 – Skills needed by individuals and the organization for digital transformation

Participants	Skills
R14	Creativity and desire to solve problems and improve existing processes, that is, thinking and contributing as an entrepreneur, and the organization needs to be receptive to new ideas.
I1	The individual must know and understand the process, IT, tools, and technologies and seek to adapt these technologies to the company's processes. The person must be observant, detailed, and systematized. They need to have a rational capacity to transform something that is not always organized into a digital process into a process that can be thought of preventively for its execution.
R11	Proactivity, agility, communication power, and initiative through internal and external training.

R6	Understanding the need to implement DT and its benefits, but especially engagement with the cause, helps to make it work. The CE can and should contribute to the dissemination of content and practices to all individuals in the organization, reinforcing DT's objectives and engaging people in this cause.
R1	Openness, flexibility, and adaptability are some of the skills required for DT. These are necessary skills for professionals, which will help the company have a culture of innovation and productivity. Corporate education contributes to the development of these skills, as it is responsible for disseminating and strengthening the company's culture, integrating new professionals, and training people.
R2	It does not require a specific competence, and it is even thought that the responsible group is multidisciplinary. Therefore, the CU must support the training of people in their respective roles so that they can actively contribute to improvements.

Source: Prepared by the authors.

Regarding the biggest challenge that the CE sector faces in the DT process, most responses converged on the engagement and motivation of the employees involved, in addition to the need for change in the company's culture. R6 believes that the main challenges are to count on the availability, collaboration, and contribution of all sectors and teams to provide content for qualification and, especially, engaging all employees to take advantage of these resources and the platform in the constant qualification process. R3's opinion was similar: "Keep DT's highly dynamic content as up-to-date as possible, and get people engaged." It is necessary to engage all people involved in the DT process, which involves all organizational levels, such as management, managers, employees, suppliers, customers, and partners (R4). The interviewees' perceptions confirm the relevance of qualifying employees and managers to use methodologies and tools that support DT (Salles, 2021).

R7 and R8 emphasized that the biggest challenge is working on organizational culture, as implementing changes to DT requires effort in training and monitoring teams. Also noteworthy is the need to have professionals capable of offering a comprehensive view of the company's product or solution, as well as more excellent proximity to its target audience, to understand customer needs (R7). R12 believes that the biggest challenge is being able to monitor all changes in real time and adapt them to the information-sharing model for all employees, with full access to updated information and processes. Relevance of the organizational culture to promote necessary changes in organizational processes was highlighted also by Li *et al.* (2021) and Pereira (2019).

By way of conclusion, the following can be highlighted as CE challenges in the DT process: a) the need for engagement of all people involved and at all hierarchical levels, as well as the need for qualification of employees and managers (R4); b) create appropriate training models (R5); c) availability, collaboration, and contribution of other areas of the company and teams to provide content for qualification (R6); d) work on the corporation's culture (R7); e) maintain a process of engaging and motivating people after completing the processes that pass through them, in addition to evaluating ways to automate their processes (R10); f) be able to monitor all changes in real time and adapt them to the information sharing model so that all employees have access to updated information and processes (R12).

Discussion

The company's CU emerged from a market need in 2008 and currently has six professionals who are responsible for developing and organizing CU's education solutions. It was possible to demonstrate that most employees from all sectors of the organization participate and get involved, either developing content or providing training. In the theoretical review on the topic, the findings of Fernandes *et al.* (2019) stood out, highlighting the relevance of an interactive workspace that allows the flow of knowledge between teams to ensure people's engagement in the companies' TD process. . The sector does not have indicators to measure the results of the actions promoted by the UC, but they are aware of the need for their creation to carry out monitoring.

Research participants understand that DT represents an organizational change that provides the design of digital solutions for processes and practices, replacing manual activities with technological tools, increasingly optimizing time, and increasing effectiveness. It is also a rupture and change that applies to people's lives as well. Pacheco *et al.* (2020) believe that more than the ability to innovate a product or organizational process, DT must be interpreted as an essential competence of the organization, encompassing all stakeholders (internal sectors of the company, suppliers, customers, competitors, etc.)

Regarding the perception of organizational leaders regarding the contributions of CE to the DT process, the following stand out: the acceleration of the process as it develops, trains, and prepares people, as well as the creation and strengthening of the organizational culture. Furthermore, the interviewees highlighted the importance of employee engagement, which often depends on actions that the CE promotes in day-to-day organizational life. In this sense, Felix (2020) showed that CE plays a vital role in a company's routine in reconciling a set of continuous educational strategies with employees, whether through dynamics, games, sales theaters, or daily motivational activities.

Some of the challenges that CE presents in relation to the DT process, highlighted by research participants, are the need for engagement of all people involved in the process, which involves all organizational levels, such as the need to qualify employees and managers to use methodologies and tools that support digital transformation; the training models that are offered; the availability, collaboration and contribution from other areas of the company and teams to provide content for qualification; the work on company culture; maintaining a process of engaging and motivating people after completing the processes that pass through them, in addition to evaluating ways to automate their processes; being able to monitor all changes in real time and adapt them to the information sharing model so that all employees have access to updated information and processes. These results corroborate the challenges presented by Fabrizi *et al.* (2019), Pereira (2019), Diniz (2020) and Buck *et al.* (2023) who reinforce the importance of developing culture, leadership and employees to face possible obstacles that may arise in the digital transformation process.

In relation to the benefits and contributions of DT for people and the organization, mentioned by the leaders, the following stood out: personal and professional evolution, knowledge and learning, engaged and empowered people, greater management control and improvement in processes, optimization, and productivity in internal processes, among others. These findings reinforce the arguments of Fernandes *et al.* (2019), Pereira (2019) and Diniz (2020) that to obtain these benefits, investments in corporate education can accelerate the digital transformation process due to the level of changes required in both the organizational structure and people.

As for the main challenges of DT, from the perception of leaders, accompanied by suggestions for its optimization, two were most mentioned: (1) the transformation of the company's structure and, consequently, cultural change, and (2) promoting everyone's awareness about the importance of DT, constantly maintaining and disseminating the objectives, goals, and benefits that it can bring to the company and people's lives. In addition, the following were mentioned: resistance to change, process automation, and investment in infrastructure. The reviewed literature on the topic also highlights that, whatever the focus or sector in which it is inserted, DT implies structural changes in its strategy, leadership, and organizational culture (Pacheco *et al.*, 2020).

To summarize the contributions of CE to DT, Table 3 presents the contributions perceived by the leaders and their relationship with the scientific literature consulted.

Table 3 – Contributions of corporate education to digital transformation and the relationship with the research authors

Contributions	Participant	Author
Acceleration of the DT process through qualifications and people's development.	I1	Eboli (2004)
For the empowerment of people to happen, engagement is necessary, and CE is important to promote this cultural change.	R3	Meister (1999)
CE provides the basis for professionals to perform with more excellent quality in their daily lives.	R9	Aires <i>et al.</i> (2017)
Raising employee awareness on the subject through training and dynamics that demonstrate learning.	R2	Pereira (2019)
CE can serve as a tool for in-depth analysis of each person's performance. It can be focused on the individual and complementary development of specific skills and can obtain greater engagement from the work team.	R8	Toni and Alvares (2016)
Constantly challenging people to make them understand that change is now constant and increasingly rapid.	R13	Mundim and Ricardo (2008)
Application of new cultures and processes with continuous learning based on good practices adopted from a DT culture.	R12	Ferreira <i>et al.</i> (2020)
Changes, usability, learning, and especially the dissemination of content and training.	R15	Silva (2021)
CE develops organizational and individual skills for DT.	R4	Felix (2020)

Source: Prepared by the authors.

Conclusion

The objective of the study was to analyze the contribution of corporate education to the digital transformation process. The empirical research comprised the development of a single case study in a services company in the management software segment whose headquarters are located in Rio Grande do Sul. DT is an imperative in the company's sector, which ensured the choice of a case in which this process was taking place in the organization, requiring the attention of all managers. In addition, the company has a structured sector for the management of its UC, which has been in operation since 2008. Therefore, in the company, both DT and CE were incorporated into the organizational strategy itself.

We found that, in the company, the CE is the primary agent of DT by supplying and meeting the demands for training, process, and culture modifications, providing access to knowledge for all employees in a standardized way, and allowing everyone to acquire the knowledge at any time. CE collaborates with DT, accelerating this process as it develops, trains, and prepares people for this process. In this way, CE helps to create and strengthen DT in the organizational culture through, for example, actions aimed at employee engagement that are encouraged in the organization's daily activities.

CE can reach employees from the moment they join the organization and accompanies them throughout their journeys within the company. Its essential role in qualification becomes even more prominent when it is necessary to help people so that they can both carry out DT and support it. In this sense, the CE proved to be both a support and a promoter of DT, confirming its relevance for the effectiveness of organizational changes.

The research also identified that the main challenge of the CE sector with regard to TD is the engagement and motivation of employees, both individually and from the perspective of involvement of different sectors. To this end, it was found that the consolidation of an organizational culture that supports the promotion of innovations is one of the differentials of the organization under study.

Although the results obtained in this study cannot be generalized, the challenges identified can be used as guidelines for other companies that wish to implement DT processes and that can rely on CE as a tool to support this process to expand the potential for success.

As theoretical contributions of the research, the mapping of CE contributions to DT can be listed. As for managerial contributions, opportunities for improvement for the company stand out, such as: a) the inclusion of impact indicators and measurement of results of actions promoted by the company's CE, with the aim to contribute more efficiently and assertively to the DT process; and b) the use of gamification in qualification courses, transforming them into dynamic materials for disseminating DT concepts.

Among the limitations of the study, it is worth highlighting that the company's different CE actions were not analyzed in detail. Although the respondents identified the methods and tools, they were not the object of study in this research. Therefore, the CE's own DT cannot be evaluated. The use of modern technologies, such as gamification and the use of augmented reality in training, are examples of techniques that can digitally transform CE, which is one of the elements that could be better explored in future research.

As a recommendation for studies, the need to analyze the perception of employees stands out, given that they are the ones who participate in CE actions and who need qualifications to conduct the DT process.

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