CORPORATE EDUCATION: DRIVING ASPECTS TOWARDS NETWORKED CORPORATE UNIVERSITY

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Abstract

This article aims to analyze the maturity evolution process of the stages of the corporate education system, listing the driving aspects of this process. To accomplish it, a qualitative research with a descriptive exploratory approach was carried out through an integrative review. The survey and systematic review were based on the analysis of existing scientific knowledge about "corporate education" and "evolution of the corporate education system". In the end, it is possible to list 25 driving factors for the evolution of the corporate education system to be considered by organizations that intend to reach the last stage of evolution, the Networked Corporate University (NCU), the most contemporary model proposed by the literature. In conclusion, this study brings theoretical contributions advancing on the existing theories and practices, as it can be considered that, when the Corporate Education System evolves towards the NCU stage, it will meet the context requirement that drives it to amplify the vision, beyond human capital, to social and relational capital.

Keywords: Corporate Education System, Evolution Stage of the Corporate Education System, Corporate University, Networked Corporate University, Driving Aspects.

1. Introduction

The contemporary society characterized by hyperconnectivity and globalization unleashes a world without borders (OHMAE, 1991), which requires organizations' attention to the capacitation, training, and continuous development of their employees.

In this sense, the Corporate Education System (CES) is encouraged to expand its vision beyond the organization's human capital, moving on to its social and relational capital.

This movement leads to the creation, treatment, integration, transfer, protection, and exploitation of knowledge assets (TEECE, 2000), enhancing different actions for the professional and organizational development.

Faced with this context, the development of individual and group skills is implied through training initiatives focused on operationality, other strategies aligned with business strategies, and other that consider not only the internal public, but also customers, suppliers, and others actors that integrate the ecosystem in which the organization is inserted, reaching the most contemporary model of Networked Corporate University (NCU), a study detailed by Freire, Silva, and Bresolin (2019).

The study of the maturity stages of the developed CES motivates the researcher to be interested in investigating how the evolution of these stages takes place. When reading articles with the characterization of NCU stages, guidelines, evaluation models, including the Kraemer questionnaire (2018), definitions are obtained regarding each stage, but not specifically the process of its evolution.

In other words, Kraemer's work is limited to analyzing the evolution stages based on the definitions proposed by the literature for each stage and, thus, it incites the research question of this article: how does the evolution of the stages of CES occur?

Faced with such questioning, this article aims to analyze the maturity evolution process of the CES stages, listing the driving aspects of this process, from the perspectives of authors identified in the literature review.

1.1 The stages of the Corporate Education System

The educational actions and strategies that constitute areas and units in the organizational context are variously denominated, including as CES, as emphasized by Hourneaux *et al.* (2008).

In this sense, in view of the changes and adaptations required in the face of the market and technology, organizations demand adjustments and complementarities in their processes aimed at training, development, corporate education and universities, leading to a progressive change in the maturity stages of corporate education systems.

In this evolutionary process, among the studies surveyed, the most contemporary model was identified, the Networked Corporate University, elaborated and established by the authors Freire *et al*. (2016a). This work points out six stages of corporate education: Training Department, E-learning Platform, Corporate Education, Corporate University, Stakeholder University, and NCU.

The stages proposed by the NCU model, which, according to the authors, are complementary and the basis for the development of the others, are presented below.

The stage called Training Department (TD) focuses on training focused exclusively on the quality and effectiveness of the tasks developed by the organization's internal public. Attention is focused on human capital and there is no alignment between the organization's strategic objectives and learning, without reflecting on processes or goals to be achieved. The use of educational technology is not significant, with low reach and interconnection of those involved in educational processes (FREIRE et al, 2019). These characteristics dialogue with Goldstein (1980, p. 230), when conceptualizing training as "acquiring knowledge, skills or attitudes that result in better performance in an environment in the workplace".

The E-learning platform (EL) is characterized as the second stage of CES by the adoption of technologies that allow educational actions to be reached wherever students are, expanding the face-to-face structures to virtual education environments. In this sense, there is greater interconnection offered to the organization's internal public, which remains the focus of education services and with development focused on the task. It is perceived that it starts to provide more comprehensive opportunities for the development of competencies necessary to the specificities of organizations, optimizing time and space, as well as economy when implementing platforms for training large teams (SILVA, 2019).

Corporate Education (CE), as the third stage, integrates strategic alignment to corporate education services. The model emerges in the 1990s "as an alternative to increase individual training and, consequently, generate higher levels of competence for organizations" (HOURNEAUX *et al*., 2008, p. 106). In this sense,

the focus of the previous stages that covers the internal public, the use of education technologies, and the human development for tasks are aligned to the strategic objectives of the organization. In this orientation of perspective, the educational services pass from the employee to the development of the learning capacity of the organization (SILVA; SARSUR; VASCONCELOS, 2016).

The fourth stage, called Corporate University (CU), presents an advance in relation to the previous stages, since, in addition to the internal audience, it integrates other participants of the value chain in the development of educational actions. Freire *et al.* (2019) highlights the expansion of the scope of educational actions, the strategic alignment of business and learning, turning to development in management and strategic education and not just the task. The intensified use of information and communication technologies (ICTs) drives greater interconnection among those involved. In this sense, corporate culture for continuous learning becomes a purpose at this stage. The CU proposed by Meister (1999) is defined as a strategic "umbrella" for the development and education of employees, customers, and suppliers, in adherence with the organization's business strategies.

The fifth stage, Stakeholder University (SU), extends to all stakeholders the development of strategic competencies, as detailed by Margherita and Secundo (2011). According to Freire *et al.* (2019) the scope is elevated as learning in network is in line with a rich interconnection between the various stakeholders, enabling denser relationships with the use of technology that drive knowledge creation. The established relationships are characterized by long term, encompassing academic universities, seeking to integrate research in the path of co-creation of knowledge assets and value creation for the various actors (MARGHERITA; SECUNDO, 2011). In this perspective, the development of skills and knowledge management favor the institutionalization of the learning culture, focusing on the development of human and social capital.

The sixth stage, the Networked Corporate University (NCU), stands out for strategic alignment among all stakeholders, promoting individual and collective learning (FREIRE et al, 2019). This stage has a high scope for being broad in its relationship with stakeholders and in a fluid way, compared to the previous one, SU, which is characterized by fixed actors and long-term relationship. In this perspective, the development of human and social capital enhances relational capital, as it is based on the relationships between individuals, groups, and organizations (FREIRE *et al*., 2019). In order for the learning process of all those involved in the organizational ecosystem, the importance of Knowledge Management tools is identified for educational technologies and networked development to occur, institutionalizing a networked learning culture: individuals, groups, organizations, and society (SILVA and FREIRE, 2017).

From the presentation of the CES stages, it can be seen that they make it possible to pay attention to and develop the organizational capabilities to keep up with the changes and needs presented by the hyperconnectivity and globalization of contemporary society.

2. Methodological Procedures

To achieve the objective of this study – to analyze the process of evolution of the maturity of the stages of the CES –, this research was conducted in a descriptive exploratory manner, by means of an integrative review.

The methodological approach is characterized as qualitative, with a descriptive analysis of the objectives and purposes of the publications surveyed.

Thus, the review was based on the analysis of the existing scientific knowledge on "Corporate Education" and "Evolution of the Corporate Education System". To this end, the study went through the definition of the themes, and preparation of the research question "*How does the evolution of the stages of the corporate education system occur?*" through data filtering, analysis of the studies included, and discussion of the results. When defining the objectives and research question, the terms in English were identified: "*corporat* educat**" and "*evolution*" for the search in the database, defining strategies regarding the field of search, filtering, and previous results.

. The search field chosen was the Scopus database, as it is the largest database with summaries and citations of scientific articles (FALAGAS; PITSOUNI; MALIETZIS; PAPPAS, 2008). To this end, on September 8, 2020, the key concept - *corporat* educat** was initially used, with *title – abs – key* as search strategies, which resulted in 264 articles. Among these documents, the key concept – *evolution* – was included for search, resulting in 17 articles, without filtering by temporality and type of documents.

Of the 17 articles identified, were excluded those that dealt exclusively with academic education and professional training of academic universities for market requirements; educational policies; evolution of specific areas of knowledge (biology and medicine), resulting in 7 articles for the composition of the study. As for inclusion, a search directed to the subject evolution of the stages of the CES was carried out in the repository of the Federal University of Santa Catarina (UFSC) library, which led to the identification of Kramer's thesis (2018) and Silva's dissertation (2019), already included in the theoretical foundation. However, these studies were not included in the integrative review, because the authors propose how CES evolves facing the application of the NCU model, not adding the analysis of the evolution of these stages. In addition to the selected documents, the book *Universidade Corporativa em Rede: diretrizes iniciais do modelo* [*Networked Corporate University: initial guidelines of the model*] (FREIRE; SILVA; BRESOLIN, 2019) was considered, for being a work that presents a rationale for the stages of the corporate education system, including the most contemporary model researched, the NCU.

3. Aspects driving the evolution of the CES stages: identification and analysis

The description of each stage presented above demonstrates the close relationship with the cultural, behavioral, and infrastructure aspects of the organization and the context in which it is inserted.

The identification of other authors' studies made possible by the integrative review highlights the understandings about CES, as well as the sensitive points of attention to be paid, demonstrating drivers in the maintenance and advancement of the stages.

The evolution of the stages according to the NCU model goes through guidelines that cover: the scope of public to be involved; the interconnection between the participants, by means of collaborative technologies; the interested parties, which may include human, social, and relational capital; the focus of educational actions as to the operational, tactical, and strategic level; the level of the courses, from free to those recognized by university diplomas; the use of collaborative education technologies; the knowledge

management, considering learning in network, organizational memory, and knowledge storage (FREIRE *et al*., 2019).

Tables 1 to 5 show the authors' perspectives identified by the integrative review, regarding the stages of education in the CES and the aspects that drive their evolution.

Table 1 - Driving Aspects in the Evolution from TD to EL

Training Department (TD)　　　　　　　　　　E-Learning (EL)	

Driving aspects	1. Technology as an opportunity to increase student motivation, reflecting on retention and dropout rates;
	 2. Relationship between content and job requirements favoring planning and preparation;
	 3. Encouraging the sharing of experiences between employees, the mastery of skills, and mentoring, avoiding travel expenses and absences for external training;
	 4. Promotion of multiple spaces to listen to a teacher, enabling different moments of study, different course duration times, and interactivity;
	 5. Implement specific characteristics of distance education:
	     ○ make education accessible to the widest public;
	     ○ encourage continuing education;
	     ○ overcome geographical limitations with the use of ICTs;
	     ○ create new administrative or institutional structures that meet the demand for non-traditional education.

Source: Elaborated by the authors.

As highlighted in Table 1, five aspects were identified that drive the evolution from the Training Department stage to the E-learning stage.

Amrou, Semmann and Böhmann (2013) highlight the extent to which traditional approaches lack motivation for students to actively learn, characterized by the limitation of linked information objectives and *just-in-time* support. To this end, the technology aims to provide an opportunity to increase the motivation of students in corporate educational services, reflecting on retention and dropout rates. In this sense, those authors also comment that the transfer of training requires the content to be related to the job requirements, favoring planning and preparation.
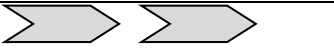
In this perspective of training employees in the workplace, Masalimova, Usak, and Shaidulina (2016) present experiences from contexts such as France and Great Britain that value the meeting of established standards and requirements, the sharing of experiences among employees, the mastery of skills and mentoring, avoiding travel expenses and absences for external training, which provides room for e-learning and the development of educational leaders.

Kaplan and Haenlein (2016) integrate this approach, stating that, when going beyond a single space to listen to a teacher, there is the possibility of different moments of study, different times of course duration, in addition to interactivity.

As shown in Table 1, from this perspective of distance learning, the educational issues necessary for the organization are resumed, addressed by Cranch (1987), which include: making education accessible to the widest public; continuing education to keep up with technological evolution throughout the career; overcoming geographical limitations with the use of ICTs; creation of new administrative or institutional structures that meet the demand for non-traditional education.

Next, in Table 2, the 4 driving factors from E-learning to Corporate Education are described.

Table 2 - Driving Aspects in the Evolution from EL to CE

E-Learning (EL)	Corporate Education (CE)
Driving aspects	1. Investment in strategies to visualize the progress of participants regarding the educational objectives in view of the potential for expansion and democratization, requiring the necessary physical and technological infrastructure; 2. Orientation towards face-to-face communication, collaboration, and interaction, combining e-learning methods and traditional approaches to promote better learning effects; 3. Closer alignment to organizational strategies, investing in long-term courses and in the co-responsibility of managers in organizational processes; 4. Identification of types and forms of training more effective to the corporate formation and the organization's strategy.

Source: Elaborated by the authors.

In Table 2, referring to the evolution from the E-learning stage to Corporate Education, four driving aspects were highlighted.

Regarding distance learning with the use of social media, Kaplan and Haenlein (2016) highlight the possibility of unlimited number of participations, implying new skills for the development of careers and the development of pedagogical innovation in face of the interactivity with participants and their personalized learning. Given this context, the investment in strategies to visualize the progress of the participants in relation to the educational objectives, in view of the potential for expansion and democratization, requires the necessary physical and technological infrastructure.

In line with this perspective, Amrou, Semmann, and Böhmann (2013) highlight the need for orientation toward face-to-face communication, collaboration, and interaction, combining e-learning methods and traditional approaches to promote better learning effects. The investment in corporate education services needs to have a return in the day to day business.
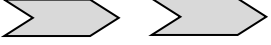
To this end, the use of a human resources management system with accessible information regarding the student's profile, basic information, and training already carried out, accurately demonstrate tasks and requirements for the current job and the following possible work levels, as a profile destination, using repository and IT support.

Still regarding investment, Masalimova and Sabirova (2014) identified the targeting of specialist employees who demonstrate more proximity to alignment with organizational strategies, through investment in long-term courses. For the development of skills on scale, it is identified the use of strategies such as mentoring, supervision, manufacturing instructions, and job rotation, favoring knowledge documentation and sharing and, at the same time, the co-responsibility of managers in the corporate education process.

Among the aspects of Table 2, there is also the alignment of corporate education with organizational objectives, in which Masalimova, Usak, and Shaidulina (2016) emphasize socioeconomic and organizational-pedagogical conditions as conditions for the selection of corporate education processes to be developed, which lead to the identification of types and forms of training more effective to the corporate formation and the organization's strategy.

As for the driving aspects from Corporate Education to Corporate University, 7 aspects were identified and are described in Table 3.

Table 3 - Driving Aspects in the Evolution from CE to CU

Corporate Education (CE) ➤➤ Corporate University (CU)
Driving aspects 1. Team managers start to perceive themselves as actors capable of communicating, collaborating, creating content, and defining milestones for post-training activities;   2. Building a shared vision to achieve strategic objectives, based on the organization's cultural characteristics;   3. Collaboration and communication through tools such as forums and social media, in order to favor the achievement of organizational objectives;   4. Recycling and reconstruction more quickly for new functions, new machinery, and new technologies, seeing them as opportunities for organizational development;   5. Need for training objectives and goals to be linked to the organization's general strategy   6. Boosting the corporate education system by meeting the corporate needs in a timely manner, and the technological and economic well-being;   7. Encouraging partnerships with traditional higher education institutions towards innovative solutions.

Source: Elaborated by the authors.

From the stage of Corporate Education to Corporate University, in Table 3 it is identified the focus on the development of management skills to develop skills that will strengthen the relationship between strategy and operation, as emphasized by Amrou, Semmanne, and Böhmann (2013). According to these authors, team managers begin to perceive themselves as actors capable of communicating, collaborating, creating content, and defining milestones for post-training activities. In this sense, Freire *et al*. (2016a) emphasize the alignment between strategy and operation, through investment in management development, in the training of multipliers in order to build a shared vision to achieve the strategic objectives, based on the cultural characteristics of the organization.

To enable this shared vision, Amrou, Semmann, and Böhmann (2013) emphasize the importance of collaboration and communication through tools such as forums and social media, in order to favor the achievement of organizational objectives.

As a mobilization requirement, Freire *et al*. (2016) identify that the competitive differential in the face of the needs of the market and society requires a quick way of recycling and reconstruction for new functions, new machinery, and new technologies, seeing them as opportunities for organizational development.

Malisamova, Usak, and Shaidulina (2016) also present this perspective of mechanisms and tools for professional qualification, considering assignments and job transfers at national and international levels. To these authors, based on the specifics of the business, the focus is on career development and the return it provides in the conquering of the market. Thus, they emphasize the need for training objectives and goals to be linked to the organization's overall strategy.

In this sense, Cranch (1987) also emphasizes that meeting corporate needs in a timely manner, and the technological and economic well-being boost the corporate education system, leading to meeting the demand for qualifying workers in specific activities with technological advancement and compatible organizational structure; specialized products and processes; language courses; equivalence to university credits, among other aspects.

Following this understanding, in Table 3, it is highlighted the statement by Freire *et al*. (2016 a) regarding educational and development programs being attentive to the business context, the essential skills, and corporate citizenship, which drive partnerships with traditional higher education institutions towards innovative solutions.

During the analysis of the driving aspects from Corporate University to Stakeholder University, 5 aspects were identified and described in Table 4.

Table 4 - Driving Aspects in the Evolution from CU for SU

Corporate University (CU) ⟩⟩⟩ Stakeholder University (SU)
Driving aspects   1. Cooperation and sharing of resources between academic and corporate institutions, exchange with visiting professors, and students invited as professors, generating shared improvement;   2. Pedagogical innovation in the interactivity with participants, and their personalized learning;   3. Interactions between those involved that enhance collaboration and cooperation, generating a significant impact on corporate education processes;   4. Sharing and creating knowledge at the individual, group, and organizational levels, going beyond their borders;   5. Perception of the organization's role in the social, economic, and political dimensions, in a systematic dynamic that can make collective learning possible.

Source: Elaborated by the authors.

In Table 4, evolution from Corporate University to Stakeholder University, according to Cranch (1987) the investment in human resources to increase productivity unfolds in continuing education and corporate classrooms. To this end, continuing education needs to be attentive to educational programs with specific focuses, short courses, use of software, and the exchange between academic and corporate institutions. This hybrid movement implies cooperation and sharing of resources between both sectors, exchange with visiting professors, and students invited as professors, generating shared improvement.
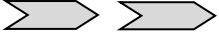
The hybrid movement emphasized by Cranch is complemented by Kaplan and Haenlein's view of the development of synchronous and asynchronous classes, leading to pedagogical innovation in face of the interactivity with participants and their personalized learning. In this sense, the potential for expansion and democratization of education drives the transmission of knowledge, relying on making materials available so that students can use them according to their needs. In the perspective of these authors, the interactions between those involved enhance collaboration and cooperation, generating significant impact on the corporate education process.

This movement of collaboration and cooperation is also highlighted by Freire *et al.* (2016a) emphasizing that the attention given to members of the production chain – employees, customers, suppliers – expands the perception of processes and results beyond the organization to partner organizations and/or parties interested in its results. The need to share and create knowledge at the individual, group and organizational levels, going beyond its borders, is present.

According to these authors, interactivity leads the organization to perceive its role with the social, economic, and political dimensions, in a systematic dynamic that can make collective learning possible.

Finally, Table 5 shows the aspects identified as drivers from Stakeholder University to Networked Corporate University.

<p style="text-align:center">Table 5 - Driving aspects from SU to NCU</p>

Stakeholder University ⇒ ⇒	Networked Corporate University (NCU)
Driving Aspects	1. Need for the organization to include in the learning network all stakeholders of the organizational ecosystem, going beyond customers and suppliers; 2. Curation of this co-creation of knowledge as a collective learning memory, favoring to all participants its use, reuse, review, renewal, and innovation; 3. Support the creation, sharing, structuring, dissemination, and use of knowledge in the organization and in the organizational ecosystem; 4. Need for Knowledge Governance, favoring the socialization of experiences, good practices, and lessons learned as a basis for reuse and innovation

<p style="text-align:center">Source: Elaborated by the authors.</p>

Table 5 identifies that, based on the social network experienced, with its norms and bonds of trust, there is the joint incentive of the participants, sharing objectives. In view of this, Freire *et al.* (2016b) state the need for the organization to include in the learning network all the stakeholders of the organizational ecosystem, going beyond customers and suppliers.

To these authors, the connectivity required for the implementation of practices, techniques, and tools in a cooperative and collaborative movement requires a high level of trust. To this end, it is necessary to review cultural, behavioral, and structural aspects of the organization.

As for the collective performance, Freire *et al*. (2016a) highlights the need for the curation of this co-creation of knowledge as a collective learning memory, favoring the use, reuse, review, renewal, and innovation to all participants.

To this end, methods and techniques must be adopted to identify critical knowledge, capturing, representing, and structuring this knowledge. In the same sense, there is the need to apply information and communication technologies for the development of practices and techniques in intra and inter-organizational communication. This gives support to the creation, sharing, structuring, dissemination, and use of knowledge in the organization and in the organizational ecosystem.

As shown in Table 5, according to Freire *et al*. (2016b) this process leads to the characterization of Networked Corporate University as an intelligent environment of continuing education, which manages and institutionalizes a learning culture among all those involved. In synchrony with this movement, there is the need for Knowledge Governance, favoring the socialization of experiences, good practices, and lessons learned as a basis for reuse and innovation.

Thus, in summary, after the integrative review performed, 25 aspects that drive the evolution of the corporate education system can be listed. These aspects should be considered by organizations that intend to reach the most contemporary model, that is, the NCU model.

4. Final considerations

The systematic search of the literature, together with the integrative review of its results, made it possible to list 25 aspects that drive the evolution along the stages of the Corporate Education System. These 25 driving aspects favor the collective journey towards organizational learning, considering the curation of the co-creation of knowledge as organizational memory, as highlighted in the Networked Corporate University stage.

Among the most cited points by the authors studied, are present in the evolution process of the stages: the choice of education technologies (present in the evolution to the E-learning, Corporate Education, and Networked Corporate University stages); the use of information and communication technologies (identified in the evolution to E-learning, Corporate Education, Corporate University, Stakeholder University, and Networked Corporate University stages); the alignment to organizational strategies (appearing in the evolution to the Corporate Education, Corporate University, Stakeholder University, and Networked Corporate University stages); the sharing and co-creation of knowledge, and the expansion of educational actions to audiences in connectivity with the organization (highlighted in the evolution to the Corporate University, Stakeholder University, and Networked Corporate University stages).

In this sense, the understanding of these drivers led to confirming the seven guidelines of the Networked Corporate University (NCU) model, which are: reaching the actors to be involved in the educational actions, the interconnection between these actors, the recognition of the stakeholders, the education technology, the focus on strategic alignment of educational actions and organization, the level of coverage of education programs, and the management of knowledge for the sharing and memory of learning networks (FREIRE; SILVA; BRESOLIN, 2019).

From the analysis on the publications carried out by this research, three guidelines stand out most: the focus on strategic alignment, seeking a shared vision with educational actions (MASALIMOVA; USAK; SHAIDULINA, 2016); the recognition of stakeholders from the internal and external community, understanding needs and expectations to reach educational processes (FREIRE *et al*, 2016b); the interconnection from information and communication technologies, which enable the integration, inclusion, and interactivity of the different authors (KAPLAN; HAENLEIN, 2016). In other words, these three guidelines can be considered as vital to the evolution of the corporate education system to attain the Networked Corporate University stage.

In conclusion, the six stages of evolution of the Corporate Education System, the 25 aspects that drive the evolution between the stages, and the seven guidelines to be managed to achieve and develop the Networked Corporate University are confirmed.

This study brings theoretical contributions, advancing on existing theories and practices, for it can be considered that, when evolving the Corporate Education System towards the Networked Corporate University stage, it will meet the demands of the context that urges it to broaden its look beyond human capital to social and relational capital.

As for further research, the continuity of this study is suggested, especially regarding empirical studies for the analysis of the driving aspects in the field and the evaluation of the viability or not of the aspects present in the organizations and in the ecosystems to which they belong.

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