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IMPACTS OF COVID-19 ON CORPORATE UNIVERSITIES

FATIMA BAYMA OLIVEIRA
ESCOLA SUPERIOR DE CIÊNCIAS SOCIAIS (FGV)

GUSTAVO GUIMARÃES MARCHISOTTI
UNIVERSIDADE FEDERAL FLUMINENSE (UFF)

LUIZ CARLOS FEITOSA DE MOURA
UNIVERSIDADE FEDERAL DO RIO DE JANEIRO (UFRJ)

ANDERSON DE SOUZA SANT'ANNA
ESCOLA DE ADMINISTRAÇÃO DE EMPRESAS DE SÃO PAULO (FGV-EAESP)

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INTRODUCTION

The COVID-19 pandemic is described as devastating, as it generates high levels of uncertainty, affects numerous aspects of social life, aggravates inequalities related to income, education and employment; significantly transforming organizational relationships and dynamics. Despite this, even though previous experiences show that pandemics generate numerous social and economic transformations, there are considerable difficulties in assessing the recent context given the intensity and magnitude of this social shock (Jorda, Singh, & Taylor, 2020).

Although the literature on the subject is in rapid growth, the subject is still incipient, mainly due to its contemporaneity. With the emergence of new variants, the reality is one of coexistence with the virus, which points to an uncertain horizon in relation to other pandemics. Trends prior to COVID-19 were leveraged during the pandemic, leading to a new type of globalization with high connectivity and low tangibility. In this sense, the changes driven by the pandemic do not represent a drastic break with the past. Instead, they continue the ongoing transformations in countless segments of society (Yeganeh, 2021).

Krishnamootrhy and Keating (2021) analyzed the impact of COVID-19 on education and its implications for the future of work, postulating that traditional universities, corporate universities and educational technology sector (EdTech) are central actors in the training of people for the labor market, before, during and after the pandemic and, therefore, these actors must be seen in an integrated and articulated manner. It is also expected that there will be an increase in total expenditure on higher education and corporate education until 2029, accompanied by a 30% increase in corporate investment in training its employees through its Corporate Universities (Dua, A., Law, J., Rounsaville, T. & Viswanath. N., 2020)

Similarly, the educational technology sector, present in traditional and corporate universities, also invested significantly in training people in 2019 (Dua, Law, Rounsaville & Viswanath, 2020). Therefore, these three actors together - EdTech, Traditional and Corporate Universities - are responsible for applying the lessons learned both in the pre-pandemic context and in the period of COVID-19 itself to reformulate the discussions and develop actions to adapt the training to corporate and society needs.

It is in this context that this study aims to understand the various implications of COVID-19 in the context of education in organizations, identifying actions taken by them in view of the urgency imposed by the pandemic, related to the survival of organizations, health and well-being of the employees. Specifically, this article seeks to answer the following research question: What are the main actions taken by Corporate Universities considering the reality imposed by the COVID-19 pandemic? Therefore, this study seeks to highlight central aspects of the literature on corporate education during the pandemic, as well as to present considerations on trends in CUs in the post-pandemic period.

The valorization of education, previously related to the academic world, is increasingly demanded by organizations, due to the needs of the productive sector. Corporate Education is, therefore, a current and relevant topic, especially when we consider a reality where companies demand the development of skills necessary for sustainability and organizational innovation (Haney, Pope & Arden, 2020). This concern is even more evident when faced with a pandemic with a worldwide impact.

2. THEORETICAL FRAMEWORK

Corporate Education (CE) or Corporate University (CU) has its origin associated with the organizations' training centers. The mismatch between the skills demanded by organizations and the training offered in academic programs compromised the company's overall productivity. Thus, the training centers aimed to fill gaps in the training of their employees and respond to criticism directed at the formal Education sector, which did not meet the needs and demands of organizations (Narayandas, Rangan, & Zaltman,1998).

The first Corporate University was created in the 1960s, at McDonald's, initially being called Hamburger University. The purpose was simple: to adapt the knowledge acquired in management schools to the needs of the organization (Buryakov, Andreeva, Orobinskiy & Yudin, 2019). In the same decade, the General Motors Corporate University also emerged (Oliveira, 2004) with the aim of meeting the company's specific training needs.

In Brazil, however, the National Petroleum Council signed an agreement with the Federal University of Bahia to train oil engineers back in 1952. Petrobras, a Brazilian company that is now one of the largest oil companies in the world, had not yet been created, but already there was the strategic decision to train high-level professionals to develop technologies that would enable it to play a leading role in the production of oil and gas in deep waters. Thus, actions related to CU existed before the formal creation of Petrobras Corporate University, in 2005 (Chagas, 2004).

In the 1990s, large Western corporations contributed to the expansion of CUs in several countries by promoting the idea of a corporate university. In Russia, also in the early 1990s, investments in skills development were intensified through corporate programs aimed at guaranteeing the stability of organizations. Partnerships were signed with universities for the vocational guidance of workers, and corporate universities were created to train and retrain employees, accompanying them throughout their careers. Thus, the financial health of organizations would be guaranteed, improving work efficiency and increasing the level of competence of specialists (Buryakov et al. 2019).

For Sorochinsky, Barakhsanova, Vlasova, Prokopyev and Burnashev (2020), during corporate training, employees improve their professional skills, mastering certain skills and abilities in a specific field and, in addition to learning, there is the opportunity to disseminate knowledge, creating a virtuous circle of benefits for the organization. As organizations are in a dynamic and competitive environment, they need to be in constant development, with the continuous training of qualified personnel. Employees, therefore, are considered the main competitive advantage of organizations, and must be trained in the specific knowledge and skills necessary for the good performance of their work.

There is constant research with a focus on improving the quality of teaching at CUs. The work of Murthy and Pattanayak (2019) applied the concept of academagogy, which is a learning approach based on andragogical (student-centered learning) and heutagogical (self-determined learning) principles in training in a corporate environment. There was little improvement in technical learning, however, there were good results in the behavioral aspects of the participants, encouraging employees to set goals and take responsibility for their work, as well as to act collaboratively with other team members.

There are several models of corporate education, so that some aim to develop skills related to the institution's core business, others expand their target audience to stakeholders and employees' families, and, within a logic of social responsibility, act to the reduction of social inequalities (Oliveira, 2004). Castro and Eboli (2013) emphasize that CUs should operate based on a logic focused on productivity/competitiveness and not on social responsibility, as being competitive, the company already contributes to social development. Therefore, to invert these roles would be to subvert and jeopardize the sustainability of the corporate education structure.

It is worth noting that, after nearly three decades of expansion of CU and the release of Meister's seminal book on the subject (1994), criticism persists and formal education's responses to the challenges of the labor market continue to be slow. Even before the pandemic, organizational leaders had been expressing their concerns about the inability of graduates in the traditional and formal educational system, in the face of the demands of the labor market (Meister, 1994; Pfeffer, & Fong, 2002; Cummins, Yamashita, Millar, & Sahoo, 2019). Furthermore, such concern also applies to the lack of training of employees already in the market, who need to be updated due to advances in automation or digitization. Thus, in the pre-pandemic context of COVID-19, discussions aimed at training the workforce already valued technology, automation, digitization of information and the different skills needed for a changing world.

The criticisms also extend to the CUs that, even after decades of growth and investments in training their employees, did not present favorable results. According to a McKinsey survey, 87% of executives interviewed complained of gaps in the training of the workforce and at least half of them had solutions to solve the problem (Capozzi, Dietsch, Pacthod, & Park, 2020). Despite the high investment in CUs and the growth in the training of the workforce, only 8% of CEOs perceived some impact on the business, presenting an interesting paradox to be investigated (Christensen, 2020).

Given the important role of CUs in training employees, it is to be expected that, in the long term, they can be compared in quantity with traditional universities, as they have the advantage of offering proposals and solutions to organizational problems faced on a daily basis in a customized way (Luna-Amaya, Gomez, Manjarres, Vidal, & Jaramillo, 2016).

2.1 Corporate Education and the Human Capital Theory

The concept of CU is anchored in the competency-based approach, as well as its effects on the performance and efficiency of workers in their work activities. The importance of CE is directly related to the growing complexity that companies need to deal with, given that current market demands make companies increasingly competitive, demanding more capable and skilled employees. The existence of policies that ensure the qualification of competent professional staff becomes crucial for companies, contributing to the development of the company and influencing the growth of individuals' careers (Buryakov et al, 2019).

Corporate Education (CE) is supported by the Human Capital Theory (HCT), which attributes to knowledge and skills the capacity to promote innovation, the growth of organizations and the creation of personal, social and economic wealth (Jilková, 2021). HCT is based on the premise that knowledge and skills increase people's human capital, thus improving their productivity. The origins of the HCT, attributed to Theodoro Schultz, in the United States in the 1950s, has since inspired several scholars, in addition to exerting great influence in the educational context and in organizations through their training centers or corporate universities. (Mincer, 1958; Kelniar, Lopes & Pontili, 2013; Schultz, 1963).

In the 1980s, neoliberal policies embraced the premise that investing in education is the path to a more productive society. This trend continues in the last decades of the 20th century and into the 21st century, with the support of international organizations such as UNESCO, with the Education for All Program and the Millennium Development Goals. In this context, the international consensus represented an important step towards globally accepted education, human rights, and environmental standards (Green, Mynhier, Banfill, Edwards, Kim, & Desjardins, 2021).

However, while education's focus on human capital has promoted educational investment, it has been criticized for neglecting the social role of education, for focusing on individual competition, and for practices that avoid issues of social justice and access to opportunities. Sen

(1999) argues that the benefit of education exceeds its role as human capital in the production of goods, as well as in terms of the benefits that result for the individual, organizations, and society. Education transforms lives and for him it is the most important among the priorities.

The rationale of HCT is rooted in the educational environment, but not limited to it. The organizations and practices of the CUs seek to invest in the development of skills of their collaborating employees, aiming at increasing productivity in the companies. As for the most recent developments and approaches, encouraged by international organizations, it is worth mentioning the development of sustainable practices, with emphasis and demands directed at educational institutions, management course curricula and programs promoted within the scope of corporations (Eizaguirre, Feijoo, & Laka, 2019; Haney et al., 2020).

Crises such as those generated by the COVID-19 pandemic offer the opportunity to re-imagine the future, as well as challenge perpetuating practices, seeking new approaches that enhance sustainability and responsible management towards prosperity. From this perspective of change, there is evidence in the international political commitment to the Sustainable Development Goals (SDGs) that local institutions need to develop and to promote transformation in different contexts (Green et al., 2021). In 2015, the UN formulated 17 Sustainable Development Goals (SDGs) for the world community. Understanding that these goals could not be achieved through the efforts of states and public organizations alone, it called on companies to focus on the SDGs in their practical activities (Campbell & Neff, 2020; Haney et al., 2020).

The COVID-19 pandemic also offers an opportunity to rethink how individuals, communities and global society can work together to make education systems more resilient to the crisis. According to Green et al. (2021), it is time to develop new frameworks that connect networks of people and systems based on cooperation, inclusion, and flexibility, proving flexible models and paths for education.

2.2. Competencies Development

The development of professional, technical and managerial skills are considered essential for the feasibility of business strategies. As the development of competencies is part of the essence of CUs, a better understanding of the competence construct is present, as it has been used with different meanings in different contexts and by different schools of thought (Wesselink, Blok, Van Leur, Lans, & Dentoni, 2015; Osagie, Wesselink, Blok, Lans, & Mulder, 2016).

There is a growing appreciation for the development of new skills that, generally, have been described as a set of knowledge, skills, attitudes, motivations, values, ethics, behaviors and technologies that an organization must have and make available, in an integrated manner, creating itself a competitive advantage that generates a positive impact on business (Barth & Michelsen, 2013; Esposito, Freda, & Bosco 2015; Osagie et al., 2016; Ploum, Blok, Lans, & Omta, 2018; Rieckmann, 2012; Spencer, Ryan, & Bernhard, 2008; UNESCO, 2017;Veliu & Manxhari, 2017).

This led several authors to point out a demand for new professional profiles, with a series of specific attributes of competence, which would make it possible to achieve more effective results and responses to the challenges that permeate this new organizational environment (Chong, 2011; Díaz-Fernández, López-Cabrales, & Valle-Cabrera, 2014; Esposito et al., 2015; Perrenoud, 2001; Veliu & Manxhari, 2017). Over the past 40 years, research on the subject has identified a variety of skills required by companies and which should help them to reach higher levels of performance. However, the literature review reveals a wide overlap of categories in the definition of competence. Investigations revealed that about 20 to 25 competencies are responsible for most of the resources required by organizations, with emphasis on competencies

related to sustainability and the context of digital transformation (Ryan, Spencer, & Bernhard, 2012; Spencer et al., 2008).

In recent decades, a growing number of companies and articles focused on the development of competencies with an emphasis on sustainable approaches. Gaining competence for sustainability involves cognitive and practical development in the form of skills to deal with increasing complexity, learning about values and continually reflecting on them (Barth & Michelsen, 2013; Haney et al. 2020; Savage, Tapics, Evarts, Wilson, & Tirone, 2015).

According to Arevalo, Mitchell, and Rands (2019) in the last three decades, most business schools have introduced at least one sustainability-focused course. Research institutes and schools in general have seen increasing projects to improve the sustainability of their schools, local business, and governmental organizations. Notwithstanding, it is important to develop a literature based on evidence about the effectiveness of different approaches that can contribute to guide faculty in future courses and projects.

The interdependence of economic, environmental, and social goals is at the heart of corporate sustainability. It should be noted, however, that the complexity of this articulation of purposes means that sustainability challenges are often poorly defined and without clear solutions (Blok, Gremmen, &Wesselink, 2015; Lans, Blok, & Wesselink, 2014).

As for the digital transformation, since the beginning of the 2000s, several companies have been extinguished - through mergers, acquisitions and bankruptcy - as a result of changes in the digital world (Siebel, 2017). Companies face increasing demands to transform their businesses and strategies in a digital environment, leading managers to recognize the importance of developing leadership and digital skills in the workplace (Kiron, Kane, Palmer, Phillips & Buckley, 2016).

If in the 1990s and early 2000s studies on e-Leadership focused on advanced information technologies (AIT), such as e-mails and Customer Relationship Management (CRM), more recently electronic leadership was studied in virtual contexts of Technologies Information and Communication (ICTs), such as social media, instant messaging and file sharing (Liu, Ready, Roman, Van Wart, Wang, McCarthy, & Kim, 2018). Given these previous instances, for Jestine and Aguilar (2021) it is of paramount importance that the digital transformation takes place in organizations through the application of more advanced technologies - artificial intelligence, machine learning and robotics - in a context of leadership.

It is also important that CUs managers consider the following dimensions as a relevant part of the process of improving the educational training of employees: 1) definition of objectives and development of training policies; 2) diagnosis of the existing level of staff development; 3) diagnosis of the need and readiness for training and identification of expectations; 4) selection and formation of training content; 5) elaboration of individual training and development plans; 6) coordination of individual plans and preparation of the general corporate training plan; 7) elaboration of training and development programs; 8) selection of types, forms and methods of training; 9) selection of training managers; 10) technical, financial and administrative support; 11) training courses; 12) post-study support, ensuring the implementation of acquired knowledge and adaptation of new knowledge to real-life practices; 13) a system for monitoring, tracking changes and evaluating the effectiveness of training and its gaps; 14) adjust training plans and programs; and 15) staff motivation (Sant'Anna , Diniz, & Oliveira, 2017).

According to Tsipes, Echkalova, Shrove and Tovb (2016), in a scenario of lack of qualified labor, emergence of new techniques and a dynamic labor market, with intense migration of qualified professionals between competing companies, CU has a key role in the continuing education of qualified professionals. CU also has the challenge of: 1) complementing the knowledge of newly graduated university employees; 2) redirect the career of more experienced professional consultants who seek new areas of activity and 3) promote

the adaptation of experienced professionals from other companies, regarding the culture and way of managing projects in the company.

Another challenge are the curation skills which must be enhanced in an increasingly digital learning world (Dean & Forray, 2020). Curation and curate derive from the Latin curare and means “to care”. It is a value-based process and therefore we choose what we value. Thus, as in museum exhibitions, curators select the materials and determine how the audience moves and stimulate connections between the pieces, experiences and discoveries, the curator educator selects materials, but is not the original creator. Dean and Forray (2020) understand that a gift of curation is that it offers a freedom to cast a wide net for those interesting materials, leaving behind the burden and responsibility for actually making them.

2.3 Corporate University in the COVID-19 Pandemic

The pandemic made it imperative for people to adapt to work, study, shop, hold meetings and communicate digitally from home. All these activities require a robust and reliable digital infrastructure, making them a high priority for national and local governments (Carnevale & Hatak, 2020). Digital technology plays a fundamental role in society and its importance will remain for decades to come. Nevertheless, it is uncertain how managers will deal with the impact of technology in reducing jobs, creating new professions, changes in organizational culture, and the move to working from home that has imposed a 24/7 employee availability (Allen, Fukami, & Wittmer, 2021; George, 2020).

Yeganeh (2021) supports that the pandemic, like other crises, considerably influences the market and eliminates smaller and fragile businesses, saving large corporations and their solid digital infrastructure. Therefore, with the advent of COVID-19, small business activity dropped dramatically across all major industries.

In addition, small businesses are often disadvantaged in e-commerce because they traditionally operate as one-person businesses. As a result, they face an unprecedented existential threat (Carracedo, Medina, & Selva, 2020; Economist, 2020; Zahra, 2020). COVID-19 also discouraged startups and their potential for innovation, and many of these technology-specific startups saw their capital and revenue decrease considerably (Bofinger, Dullien, Felbermayr, Fuest, Hüther, Südekum, & Weder di Mauro, 2020; Kuckertz, Brändle, Gaudig, Hinderer, Reyes, Prochotta & Berger, 2020).

However, large technology companies must emerge from this crisis even more robust, as is the case with Facebook, Amazon, Microsoft and Apple, which can capitalize on their vast technological resources to innovate, increase market share and, consequently, prosper. The technology sector moves away from the business models of the last decade towards more sophisticated and profitable models based on subscriptions, e-commerce, big data, cloud computing and business infrastructure (Economist, 2020).

Therefore, one of the main consequences of the COVID-19 pandemic is the rapid obsolescence of conventional business models and the emergence of a new type of globalization, based on increasing levels of connectivity in virtual space and an economic production marked by more digital, intangible assets and with fewer employees. However, as organizations shift to telecommuting and remote business, new problems associated with distance management emerge and demands for skills and abilities to manage uncertainty and facilitate global work become more critical (Caligiuri, De Cieri, Minbaeva, Verbeke, & Zimmermann, 2020); Oliveira, Giannetti, Agostinho, & Almeida, 2018).

Similarly, the implications of COVID-19 for business schools have destabilized operating models, creating an urgency for them to quickly adapt and learn new virtual educational alternatives. However, simultaneously, new opportunities emerge with the pandemic, demanding an education that is attentive to social challenges, which can give greater legitimacy

to the curricula by turning to responsible management education (Falkenstein, Hommel, & Powell, 2021).

Studies that address the impact of the digital transformation and Covid-19 on Corporate Education emphasize the need for these units to rapidly expand the use of technologies, to learn new skills, to adopt new ways of teaching, placing educators in the position of students who they need to update themselves and quickly present responses to a new reality. Consequently, changes have had effects on both those who educate and those who teach, and in the academic and business environment (McFadden, Blakeman, Irwin, Anand, Lähteinen, Baugerud, & Tham, 2020; Prata,2020).

Thus, education in the recent past, present, and future is connected to the "digital all" movement (Baldwin, 2020). There is no doubt that EdTech has advanced with the COVID-19 pandemic, becoming an important part of the educational equation for both traditional and corporate universities. EdTech has been the main vehicle for teaching, learning and working as the world becomes more virtual. However, criticism is attributed to EdTechs for not prioritizing solid pedagogy and learning, giving more importance to business goals. (Knox, Williamson, & Bayne, 2020; Teräs, Suoranta, Teräs, H., & Curcher, 2020).

In short, considering that corporate education has similarities with traditional university education, the challenges to be faced are equivalent. The isolation of students and staff during the learning process, the difficulty in adapting to the online reality in the pandemic and uncertainties in the post-pandemic are challenges to be overcome by HEIs and CUs. Both must support students and staff, guide them in best practices, provide infrastructure and platforms for online or hybrid learning, and need to develop strategies to deal with psychological issues - stress, anxiety, depression - intensified by the pandemic.

3. METHOD

The methodology used was based on two main steps. The first focused on identifying the reference bibliography on the researched topic: Corporate Education in the context of COVID-19. The second resorted to field research in order to obtain insights from different stakeholders involved with the CU regarding the main changes that occurred in their activities as a result of COVID-19.

3.1. Systematic literature review

According to Petticrew and Roberts (2006), systematic literature reviews provide guidance for researchers, practitioners, and policymakers. Sandelowski and Barroso (2003) described different steps in this process, including the formulation of the research question, literature search, evaluation, and inclusion of articles, as well as interpretation.

The literature search focused on the Web of Science and Scopus databases at 07/16/2021, using the Boolean formula: (("Corporate Education" OR "Corporate University" OR "Corporate Academia") AND "Covid"), having identified a total number of 1251 articles. Articles from the last 5 years were filtered. From the analysis of the title and abstract, it was possible to eliminate those that did not adhere to the research objective, reaching a total of 27 articles. Additionally, complementary articles were sought in other databases such as SCIELO and EBSCO, thus incorporating a further 41 articles, in all, 68 articles were used as the basis for the elaboration of the theoretical framework of this study.

3.2. Field Research

A questionnaire was developed and made available on the Qualtrics platform from October 2020 to July 2021 and distributed to approximately 300 companies. Although the questionnaire was applied to a group of 325 individuals, only 65 respondents completed the entire questionnaire, justifying the small number of respondents considered in this analysis.

The questionnaire contained questions related to demographic data, actions traditionally taken by corporate universities, actions taken during the period of the pandemic and related to the organization to which the corporate university is linked.

In addition to descriptive statistics and inferential analysis, qualitative research through interviews was used in order to broaden and deepen the understanding of the results obtained in quantitative research (Eisenhardt, 1989).

The study had 5 large organizations as its unit of analysis, selected based on the accessibility criterion, that is, companies with more than 3500 employees, cited in the ranking of the *Jornal O Estado de São Paulo* (2021) referring to the most important companies in the country in the last 5 years. The 5 organizations are in the following fields: 2 multinationals (one in the mining sector and the other in technology) and 3 national ones operating in the banking (2) and mining sectors.

The interviews were structured from a set of questions defined based on the researched literature and on the Qualtrics questionnaire. The 5 in-depth interviews were conducted with managers who occupy leadership positions in Corporate Education at the organizations surveyed, as shown in Table 1. The questions in the interview script were specifically based on categories associated with the pandemic and post-pandemic context.

TABLE 1
List of interviews by sector

Interview	Enterprise
E1	Multinational Mining Company Manager
E2	National Mining Company Manager
E3	Multinational Technology Company Manager
E4	National Company Manager Banking Sector
E5	National Company Manager Banking Sector

The data analysis method used was content analysis, a set of techniques for systematization, interpretation and description of the information content (Bardin, 1977). For the analysis of the interviews, a priori categories were created from the questions used in the survey which gave rise to the quantitative results (Eisenhardt, 1989; Godoy, 1995), as shown in Table 2.

TABLE 2
Analysis Categories

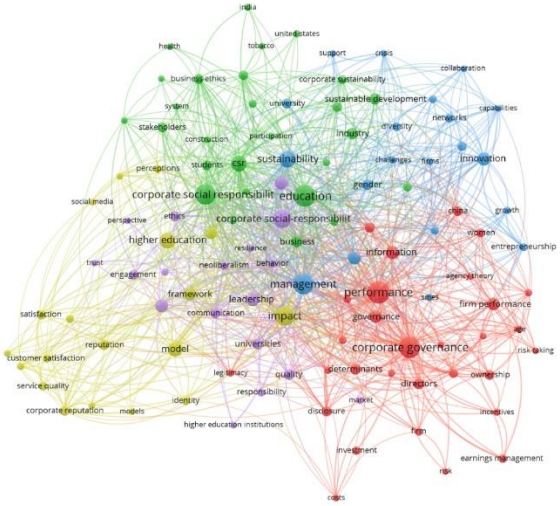
Categories	Subcategories
Pandemic Context	Actions taken Main investments Importance attributed to the CU Skills valued Course methodologies Learning methods
Post-pandemic Context	Skills valued Course methodologies learning methods Business model

4. FINDINGS AND DISCUSSION

4.1 Bibliographic Search

The VOSViewer software was used and having applied the search terms in the initial Boolean formula (without filters), Figure 1 was obtained, which allows the visualization and analysis of the most common subjects in the scientific literature. It is noticed that the themes education, higher education, corporate social responsibility, sustainability, and performance were the most present, ensuring alignment with the research theme.

FIGURE 1
Themes network generated on VOSViewer



Of the 68 pre-selected articles, 10 were considered the most aligned with the research objective, as detailed in Table 3. The articles address the importance and role of corporate education, the challenges faced by organizations to respond to the pandemic, the migration of companies for the digital environment, different approaches to dealing with employee anxiety, skills valued in organizations and reflections on the consequences of the pandemic after COVID.

TABLE 3
Articles on Corporate Education and COVID- 19's impact on the organizational context

	Authors	Article	Journal	Impact Factor (Scopus)
1	Krishnamootrhy and Keating (2021)	Education Crisis, Workforce Preparedness, and Covid-19: Reflections and Recommendations -	American Journal of Economics and Sociology	0.8
2	Watermeyer et al. (2021)	Pandemia a Reckoning of UK Universities Corporate Response to Covid19 and its Academic Fallout	British Journal of Sociology of Education	3.3
3	Gonzalez-Perez et al. (2021)	Crisis Conducting Stakeholder Salience: Shifts in the Evolution of Private Universities' Governance in Latin America	Corporate Governance International Journal of Business in Society ·	4.1
4	Scavarda et al. (2021)	A COVID-19 Pandemic Sustainable Educational Innovation Management Proposal Framework	Sustainability	3.9

5	Buryakov et al. (2019)	Corporate Education System as a Factor of Ensuring Modern Companies Financial Stability	International Journal of Economics and Business Administration	1.9
6	Jilková (2021)	Sustainable Corporate Strategy the role of the human capital in the time of Covid 19	TEM Journal of Technology Education in Management	1.2
7	Sundaray, Sarangi and Patra (2021)	Psychological Vulnerability and Coping Among Management Students During Covid19 Pandemic	Journal of Mental Health Training Education and Practice	1.1
8	Jestine and Gavrilova (2021)	Student Perceptions of Leadership Skills Necessary for Digital Transformation	Journal of Education for Business	1.6
9	Biberhofer et al. (2019)	Facilitating work performance of sustainability driven entrepreneurs through higher education the relevance of competencies values	International Journal of Entrepreneurship and Innovation	3.1
10	Green, et al. (2021)	Preparing Education for The Crises of Tomorrow a Framework for Adaptability	International Review of Education	1.9

Source: Authors

Krishnamoorthy and Keating (2021) analyze the impact of COVID-19 on the higher education crisis and its implications for the preparation of the workforce based on the integration of three important actors: traditional universities, corporate universities and educational technology companies - EdTech. The authors view higher education as a means of success for individuals seeking growth and livelihoods; for organizations that want well-prepared people; and for societies that seek to be inclusive and fair. Together, traditional universities, corporate universities and EdTech have a responsibility to apply the lessons of 2020 to reframe discussions on higher education to fit society's needs.

Watermeyer et al. (2021) report the experiences of 1,099 academics in the United Kingdom on the response of institutional leaders to the COVID-19 crisis. The study results consider that the pandemic further consolidated historical inequalities in the distribution of power in universities and deepened the little attention paid to workers' health and well-being. There are several misalignments in a world not only affected by the virus, but that needs to adjust to the continuous legal, social, cultural and economic transformations prior to the pandemic

Gonzalez-Perez et al. (2021), based on a sample of eight Latin American private universities, developed case studies to examine the priority given to stakeholders in decision-making by higher education institutions during the COVID-19 crisis. Contrary to the notion that, during crises, organizations prioritize stakeholders who provide essential resources for their survival, the article pointed out that, in crises, stakeholder management was guided by social responsibility. Furthermore, they suggest that crises can be turning points for changes towards social responsibility approaches.

The research carried out by Scavarda, Dias, Reis, Silveira, & Santos (2021) aimed to verify how the need for a rapid change to the online system, in response to the mandatory social distancing imposed by the COVID-19 pandemic, affected relationships and performance in educational institutions. Based on the perception of professors from the 197 best Brazilian universities, it analyzed the actions taken to innovate and achieve sustainable education. The results point to the difficulties found in conducting online classes, mainly due to the domestic routine, the lack of prior training of teachers in technology, the absence of training courses for the transition and difficulties in accessing the internet.

Buryakov et al. (2019) highlight the importance of the CUs of large holding companies that aim to create a human capital development model for their employees, as part of the implementation of the company's mission and guarantee of the business's financial stability

strategy. In the same vein, the role of human capital in the development of sustainable corporate strategies, in the days of COVID-19, was the focus of Jilková's analysis (2021). It also presents several benefits adopted before and during the pandemic that, according to the employees' perception, favor organizational engagement and loyalty. It emphasizes, however, that benefits related to the promotion of health and well-being of employees started to be more valued by employees.

Psychological vulnerability is at the heart of the study by Sundaray, Sarangi, and Patra (2021) when analyzing the impact of fear of COVID-19 on stress and anxiety of participants in management courses and presents strategies to deal with the situation. The factors identified as the most determinants of stress were uncertainty regarding plans, concern with career and discontinuity in routines.

Identifying the competencies for leading companies in the context of digital transformation was the objective of the study by Jestine and Aguilar (2021). The results revealed that digital knowledge along with leadership skills are central to the formation of corporate leaders. Furthermore, research subjects consider it relevant to improve business management curricula to provide participants with the opportunity to develop leadership skills to manage with confidence amidst the complexities of digital environments.

Biberhofer, Lintner, Bernhardt and Reichmann (2019) explore the perception of forty-eight entrepreneurs in five European countries about the professional performance of entrepreneurs to contribute to better learning environments in higher education, with an emphasis on sustainable entrepreneurship. Competencies, as well as values and worldviews are fundamental dimensions for higher education. The results show that for sustainability-oriented actions, it is crucial that entrepreneurs are reflective and action-oriented with the ability to deal with and understand the complexity of real transformation processes, have the skills to reflect on themselves in the performance of their work, and think about your values and worldviews, goals, and impacts. They also add strategic competence and performance management as paramount.

Green et al. (2021), considering the difficulties faced during the COVID-19 pandemic, present a frame of reference for the adaptability of educational systems, in contexts of future crises, seeking to maintain stability and promote equality, freedom and well-being of people. According to the authors, adaptability in educational systems can be promoted at the individual, community, state, and global levels, through the coordination of professionals, scientists, corporations, community and government stakeholders.

4.2. Field research

4.2.1 Descriptive analysis of Survey results

The sample is well balanced in terms of gender, with 51% of respondents identifying themselves as men. 43% of respondents are between 46 and 60 years old, and have either completed or ongoing education at the specialization level (35%) or master's (34%). Furthermore, about 41% of respondents are in management, directorship, or presidency positions, and most have between 1 to 5 years of work (42%) or between 11 to 20 years in the institution (27%). When asked specifically about their work at the institution's corporate university, the groups with the highest concentration are repeated: individuals who have between 1 to 5 years of work (50%) or between 11 to 20 years at the corporate university (17%).

Regarding the actions taken during the pandemic period, the core of this article, some descriptive data are worth mentioning. Short online courses were identified as the type of education with the highest number of respondents (32%), followed by seminars, technical conferences and distance lectures (23%), and graduate online courses (17%).

On the other hand, courses aimed at qualifying teachers and instructors were identified, in general, as the most important action taken by the corporate university during the pandemic (31%), followed by courses to qualify employees (21%) or investments in digital technologies (19%).

It is noteworthy that while men judge courses to qualify teachers, instructors and facilitators as a priority during the pandemic, women judge courses to qualify employees as the most important action taken by corporate universities during the same period.

It was also noticed that investments in the corporate university during the pandemic increased (41%) or remained constant (27%). If we stratify by gender, half of men indicated that investment increased during the pandemic, compared to 35% of women who had the same opinion.

Finally, in a post-pandemic context, most respondents consider the expansion of hybrid courses, with a predominance of online methodology, as the most important trend to be adopted by corporate universities (38%), followed by the migration of all courses for online methodology (20%). A graph with the other categories, as well as the distinction between the order of importance attributed by the respondents, can be seen below.

4.2.2. Analysis and Discussion of Results

While the descriptive analysis of the data was limited to just presenting the sample of respondents and information related to corporate universities, both in the context of the pandemic and perspectives in relation to the post-pandemic context, this section focused on the relationship between demographic variables - gender, age, educational background, hierarchical position and length of service - and some of the variables related to the main actions taken by companies in relation to COVID-19.

The section was divided into two subsections: the first presents the main findings related to the actions taken during the COVID-19 pandemic, while the second one presents the trends in the post-pandemic context. In each of the subsections, the inferential results of the questionnaires are presented together with the discussion arising from the interviews carried out with the managers of the 5 companies.

4.2.2.1 Actions in the COVID-19 Pandemic

This section quantitatively analyzes the influence of demographic variables in indicating the main actions taken by Corporate Universities during the pandemic. It can be inferred that, although men have a slight preference for implementing qualification courses for teachers, instructors and facilitators, the difference between both genders is not statistically significant (x_{men} = .4545, x_{women} = .3750, p-value >. 10).

The same can be inferred when one distinguishes by age, educational background, hierarchical position, or length of service at the institution or corporate university. Although we find that older individuals, with a higher level of education, who belong to higher hierarchical positions, with less time at the institution and working longer in corporate universities, prefer to implement courses to qualify teachers, instructors and facilitators, these effects are indistinguishable from zero given the lack of statistical significance, as shown in Table 7 (columns 2 to 6). We also emphasize the very low explanatory power of all models presented in this table.

Analyzing the interviews with managers concerning the actions taken in the context of the pandemic, the interviewees mentioned that, when the pandemic was decreed, the urgency of organizations turned to actions aimed at digital technologies (E1, E2, E4) and aimed to develop skills and prepare leaders and employees for remote work (E5). The interviewees also

cited the qualification of instructors and teachers as the 3rd most important action (E4, E5) and one of the interviewees (E1) emphasized preparing and supporting leaders to deal with and motivate their teams to achieve the goals as a priority.

In line with theory, the priority given to actions aimed at employee engagement, motivation, and emotional support (E1, E2, E4) was mentioned as the second most important by the interviewees. Respondents also mentioned that their companies have developed programs aimed at the welfare of employees and even online meditation programs (E2, E5).

It is observed that the main actions taken by the organizations interviewed converge with the results of the questionnaire, considering only the difference in the order of importance attributed. In this sense, the interviewed managers pointed out as the most important actions those aimed at digital technologies, followed by those aimed at supporting and engaging employees. The analysis of the questionnaire highlights the qualification of professors/instructors/facilitators, followed by courses for employees as the main actions taken by the CUs during the pandemic.

Finally, it is important to note that, according to the perception of the interviewed leaders (E1, E2, E4), the CUs started to be more valued during the pandemic by both managers and employees. It is reasonable to assume that if the CUs, before the pandemic, were predominantly based on the logic of human capital aimed at training employees in line with organizational strategy, the pandemic imposed another reality. Organizations had to reinvent themselves quickly, training leaders, employees and instructors to ensure the organization's financial health, the physical and emotional health of its leaders and employees and, above all, its survival.

We also analyzed the perception of the increase or decrease in investments made in corporate universities during the pandemic period. It was found that although men have a slightly higher mean perception ($x_{men} = 3.06$) than women, the difference between them is not statistically significant ($x_{women} = 2.84$, p-value > .10) at the levels of reliability usually accepted in the academic environment. Results reported in the regression analysis reiterate this finding: although men have a higher average score than women by 0.2237 points, the p-value is equal to 0.441 ($\beta = .2237$, p-value > .10) and the explanatory power of the model is very close to zero.

The same can be inferred when we distinguish by age, educational background, hierarchical position or length of service at the institution or corporate university. Although we realize that younger individuals, with a higher level of education, who belong to higher hierarchical positions, or with longer years of service have a perception that there is an increase in investments made in corporate universities, these effects are indistinguishable from zero given the absence of statistical significance and the remarkable low explanatory power.

It was noticed through the interviews that all the leaders of the CUs interviewed informed that there was an increase in investments in digital technology for training for remote work. It should be noted that actions aimed at investments in digital technologies and for the physical and mental health of employees are initiatives mentioned by authors during the pandemic (Sundarey et al., 2021; Scavarda et al., 2021). Such findings, in addition to being in line with previous results mentioned earlier in this paper (Table 5 and Table 6), can possibly be corroborated by the engagement, motivation and support for the employees' physical and emotional health. 4 of the 5 managers (E1, E2, E3, E4) mentioned that there was an increase in investment in actions focused on supporting employees in the home office and in situations of social isolation, such as webinars, lives and even consultancies.

In contrast, however, one of the interviewees mentioned that there was no increase in the CU budget, with only urgent and intense actions to train employees for the remote reality and to keep them motivated and engaged in their work. This required the organization to pay attention to the physical and emotional health of its employees, as well as the need to develop communication channels to clarify doubts, keeping them participative and committed to the

established goals. In other cases, some investments were reduced or maintained, such as, for example, qualification of employees and partnerships with national and international institutions (E2, E5).

4.2.2.2 COVID-19 Post-pandemic Trends

This section provides preliminary results about the influence of demographic variables on the main trends identified for corporate universities in the post-pandemic context. It can be inferred that, although men have a slight preference for expanding hybrid courses with a predominance of online methodology, the difference between both genders is not statistically significant (x_{men} = .8484, x_{women} = .7500, p-value > .10), as shown in column 1 of Table 6.

The same can be inferred when analyzing by age group, educational background, position or years of work at the institution or corporate university.

Although we realize that older individuals, with a higher level of education, belonging to higher hierarchical positions or who have worked longer, indicate the expansion of hybrid courses with a predominance of online methodology as the main trend in the post-pandemic context, these effects are indistinguishable from zero given the lack of statistical significance. We also emphasize the very low explanatory power of all models presented in this table.

Corroborating the findings regarding the business model and in view of the drastic changes generated by the pandemic, in a qualitative perspective, a strong trend can be seen in the development of change in the business model of the UCs (E1, E2, E4) according to the notes made by the managers of the CUs interviewed. Changing the business model means repositioning the UC's strategic performance, generating the possibility of greater autonomy to meet local demands, given that each location has its peculiarities and needs to act in accordance with these specificities. CU needs to change, expand its operations beyond a training repository, become a space to work the learning culture. In this sense, Knowledge Management will gain strength in the post-pandemic context, if companies are led to see the knowledge within them, the people's know-how and the professionals' ability to transmit it (E1).

Furthermore, it is noteworthy that one of the interviewees (E2) reported that his company took the pioneering decision for employees not to return to the offices, except for those whose activities require presence. In this case, there will be three work models: 100% remote, hybrid with an occasional visit to the company and face-to-face. This decision by the presidency aims to reduce the risk of employees and is supported by the company's value attributed to employee safety.

The areas with the most courses mentioned by the interviewees were the areas of Leadership and People Management, Health and courses aimed at the company's core area. As for the type of courses, short distance courses predominate (E1, E2). Regarding the learning methods most mentioned in the interviews, managers highlighted webinars, lives, video classes and learning trails (E2, E3).

Finally, there is a convergence of the answers of the interviewed managers with the research results related to the main trends to be adopted by the UCs in the post-pandemic context. As previously presented in Graphs 2 of the previous section, respondents also reported the need to expand hybrid courses with a predominance of online methodology (E1, E5) and the tendency to intensify the adoption of knowledge curators by CUs (E1, E5) as the main trends to be adopted in the post-pandemic context.

5. CONCLUSION

The COVID-19 pandemic generated drastic changes and impacts on society, whose effects will last and will be evaluated for years. Given this reality, the article aimed to present

the main actions implemented during the pandemic period, as well as the main trends that unfold in the post-pandemic, within the scope of Corporate Universities. The paper was predominantly based on academic literature published during the pandemic and was anchored in the Human Capital Theory – HCT, which relates investments in employee qualification to increases in organizational productivity.

The survey showed the emergence of other priorities in the pandemic, with intense actions in terms of digital technology to prepare leaders and employees for remote work and ensure the survival of organizations. Furthermore, it highlighted the importance of training leaders to deal with the unknown, motivating their teams, with a quick ability to provide answers and adapt to new contexts. It also observed the growth of actions aimed at the well-being and attention to the physical and emotional health of employees, valued by employees and inducing engagement and loyalty to organizations.

It is worth reflecting on whether these actions, especially those aimed at the well-being and health of employees, are influenced by principles and strategies disseminated by the most recent approaches to socially responsible and sustainable management, or whether they are temporary emphases related to the context of crisis generated by the pandemic. Given the degree of maturity of organizations, it is expected that both perspectives are present, after all, COVID-19 impacted everyone, albeit in different intensities.

It is therefore concluded that one of the main consequences of the COVID-19 pandemic is the rapid obsolescence of business models and the emergence of a world characterized by digital, intangible assets and with fewer employees. In this sense, the research showed a clear trend of significant changes in the business models of the CUs, already underway or under discussion within the organizations. A considerable part of the survey respondents emphasized the challenge of developing a new business model that translates into a flexible work environment, with the predominance of the home office.

However, as organizations move to the home office and remote businesses, new demands arise and, regarding to competencies the priority is the development of leaders with skills to manage uncertainty in digital environments, as revealed by the research. It is also important to mention the courses migrating to the hybrid modality or predominantly online, the video classes and webinars, contrasting with the pre-pandemic reality, in which most courses were in person.

According to the survey carried out, there was an increase in the recognition and appreciation of CUs by employees and managers, which indicates that CUs have a consolidated role. However, due to the criticism directed at the CUs regarding the understanding that investments in training people have little impact on business, efforts are needed to review the curricula and adapt them to training actions that meet the challenges and strategies of the companies.

Finally, the research has some limitations: the predominance of managers among the survey respondents and the fact that all respondents are top executives at the CUs. The difficulty in interviewing the leaders in the CUs, due to the overload of work in the pandemic, made it difficult to expand the number of companies interviewed. For a better understanding of the effects of COVID-19, it is suggested that future research consider the perspective of employees on the topics analyzed in this paper as well as developing studies that include other realities and organizations, including at the international level.

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