



The adaptation of companies to the COVID reality: a systematic review

La adaptación de las empresas a la realidad COVID: una revisión sistemática

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Abstract

The sudden emergence of the COVID-19 pandemic has led to profound social and economic changes. Companies have been forced to pivot their business models to ensure their continuity. This study delves into the trends observed in the changes in business models during this crisis. The objective of this research has been to identify the factors behind the initiatives they have taken, as they will presumably be consolidated and will be the basis for disruptions unthinkable before the pandemic. A rapid systematic review has allowed to recover and summarize the results of the most relevant research in this field. Twenty-eight articles have been selected from the main scientific databases, Scopus and Web of Science, using the inclusion decision flowchart proposed by PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis). The main findings of qualitative analysis that has been carried out highlight the importance of technology, with the generalization of digital marketing and sales channels in companies, teleworking and consumption of technological products such as Artificial Intelligence; the adoption of innovations related to the value proposition, in most cases in the form of new products and services, as a more common form of consumer experimentation; and the generalization of collaborative initiatives among all actors in the business ecosystem.

Resumen

La súbita irrupción de la pandemia COVID-19 ha propiciado profundos cambios sociales y económicos. Las empresas se han visto obligadas a pivotar sus modelos de negocio para asegurar su continuidad. El presente estudio profundiza en las tendencias observadas en los cambios de los modelos de negocio durante esta crisis. El objetivo de esta investigación ha sido identificar los factores que se encuentran detrás de las iniciativas que han adoptado las empresas, pues presumiblemente se consolidarán y serán la base de disrupciones que eran impensables antes de la pandemia. Una rápida revisión sistemática ha permitido recuperar y resumir los resultados de las investigaciones más relevantes en este campo. Se han seleccionado veintiocho artículos de las principales bases de datos científicas, Scopus y Web of Science, utilizando el diagrama de flujo de decisiones de inclusión propuesto por PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis). Los principales hallazgos del análisis cualitativo que se ha realizado destacan la importancia de la tecnología, con la generalización de canales digitales de marketing y ventas en las empresas, el teletrabajo y el consumo de productos tecnológicos como la Inteligencia Artificial; la adopción de innovaciones relacionadas con la propuesta de valor, en la mayoría de las ocasiones en forma de nuevos productos y servicios, como forma más común de experimentación de cara al consumidor; y la generalización de iniciativas de colaboración entre todos los actores del ecosistema empresarial.

Keywords | palabras clave

Review, PRISMA, business model, business environment, inter-firm cooperation, innovation, technology, COVID-19.
Revisión, PRISMA, modelo de negocio, ecosistema empresarial, cooperación entre empresas, innovación, tecnología, COVID-19.

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1. Introduction

The sudden appearance of the COVID-19 virus has caused profound changes in society as a whole and in the business environment, in particular, a VUCA context (volatile, uncertain, complex, and ambiguous) like the one we live in, forces us to continually reconsider routines to survive (García and Esteban, 2020). It is obviously too early to determine if the pandemic will bring permanent economic, social, and political changes, although trends such as teleworking, and the widespread use of the Internet seem to be here to stay (Tisdell, 2020). While these trends were already underway before COVID, they have accelerated, leaving the question of whether or not they are socially and psychologically desirable (Tisdell, 2017; Villasmil, 2021).

With many countries imposing bans or restrictions on travel, economic activity has weakened due to uncertainty in the business environment (Ratten, 2020). The confinements implemented by a good number of countries have contributed, at least partially, to minimize the spread of the pandemic, although its consequences both psychological (Le & My Nguyen, 2020) and economic (Acemoglu et al., 2020; Miles et al., 2020; Harris et al., 2020) and even environmental (Helm, 2020) have been numerous. The severity of the recession has been due to the combined effects of shocks on both the demand and supply sides and requires rethinking how industrial companies with a global supply chain and manufacturing can survive the impact of lockdowns and social distancing. Perhaps the pandemic will accelerate the process of deglobalization and the reduction of trade and collaborative research alliances between countries and regions (George et al., 2020).

Misinformation or insufficient or contradictory information has hampered the ability of consumers to understand, plan and deal with health, economic and social threats that have led to changes in the market and in the socio-cultural behavior of consumers (Campbell et al., 2020). For example, recent studies on consumer spending patterns provide evidence of spatial and temporal displacement of consumption and storage behaviors (Hall et al., 2021), since consumer behavior and personal, social, psychological, and cultural factors are significantly associated (Ortega-Vivanco, 2020). As the situation normalizes and consumers return to old habits, it is plausible to think that these will be modified by new regulations and procedures. New habits will also emerge from technological advances, demographic changes, and innovative ways that consumers have learned to deal with the blurring of the boundaries of work, leisure, and education (Sheth, 2020a).

Crises cause turbulence in the market due to changes in routines and structures (Williams et al., 2017), although their impact is very uneven depending on the sectors. Regarding what is happening as a consequence of the pandemic, in some sectors, such as education, innovations are happening; in others, such as hotels and tourism, located at the epicenter of the pandemic, the outlook looks bleak. Companies such as Amazon or Walmart are strengthened, while many others have been forced to close their doors (Barrero et al., 2020). In particular, SMEs, due to their particular idiosyncrasy, have been dramatically impacted and require very specific institutional, strategic and financial decisions (Eggers, 2020), as well as digitization and the use of the online channel, after careful analysis of the temporality of the windows of opportunity and the vulnerability of the innovations that are required (Dannenberg et al., 2020).

Younger workers, women, and ethnic minorities have been disproportionately affected and their jobs threatened. Human Resources departments have the opportunity to play an important role in helping individuals and organizations find and support resilience, manage crises, and build more sustainable professional cultures

(Hite & McDonald, 2020); in fact, the health crisis has brought the conversation about the future of work to the present (Lund et al., 2020). Following Hongwei and Lloyd (2020), the pandemic also offers a great opportunity for companies to move towards a more genuine and authentic Corporate Social Responsibility (CSR) and contribute to addressing urgent social and environmental challenges.

In this framework, companies must become better customers for their suppliers and redefine the purpose of their business (Sheth, 2020b), and decision-makers review their business models, focusing on customers, value propositions, capabilities, the potential of collaborating with a priori competing organizations and the connections between all these issues (Crick & Crick, 2020). And doing so quickly, considering the future effects of these decisions and, simultaneously, generating options to overcome the crisis here and now (Teece et al., 2016) and reflecting on the key factors in the identification of new opportunities (Gamero & Ostos, 2020).

As the pandemic has progressed, organizations have fully or partially integrated these recommendations and readjusted their approaches, activities, and business models, that is, the way in which they create and deliver value to their customers (Seddon et al., 2004). The review carried out delves into the trends observed in changes in business models during 2020. Rapid systematic reviews emerge as a useful methodology to efficiently provide actionable and relevant evidence when time and/or cost factors are relevant (Tricco et al., 2015), allow examining emerging areas (Trico et al., 2016), and are useful for answering research questions such as what information has been presented on this topic in the literature? (Sucharew & Macaluso, 2019). Systematic reviews and other techniques used for the synthesis of knowledge are increasingly used to facilitate decision-making (Bosch-Capblanch et al., 2012).

In situations where urgent decisions are required, governments, stakeholders in the health system, international organizations, and civil society request quick reviews (Tricco et al., 2017). There have been publications in a variety of areas including digital communication, energy drink consumption by children, sexual health interventions, and cannabis withdrawal (Plüddemann et al., 2018). These investigations adhere to the key principles of systematic reviews, including a clear statement of objectives, pre-definition of eligibility criteria, evaluation of the validity of results, and systematic presentation of results (Langlois et al., 2017), with the exception that the processes are accelerated and optimized to be completed in a shorter period of time. Rapid reviews are rigorous and explicit in method and therefore systematic, but they make concessions to the breadth or depth of the review process by limiting some aspects. To do this, several valid techniques that can be used to shorten the time, such as carefully focusing the question, using less sophisticated search strategies, restricting the amount of gray literature and/or extracting only key variables are identified (Grant & Booth, 2009). These types of studies involve fewer stakeholders, fewer discussions, fewer iterations, and greater use of previous lessons learned (Oliver et al., 2017); their elaboration is an important challenge, due to the difficulty of responding in the short term, with scientific rigor and a standard of transparency acceptable to all interested parties (Watt et al., 2008).

The crisis has brought research topics as disparate as their impact on specific sectors such as tourism (Sigala, 2020); the identification of different types of uncertainty, their antecedents and results, and the strategies used to mitigate their impact (Sharma et al., 2020); effective leadership in virtual work environments (Bartsch et al., 2021); the long-term consequences of the pandemic in the design of organizations (Foss, 2020); the provision of essential services, responsible purchasing practices, the behavior of the market in the midst of the crisis (Mele et al., 2020); or the needs that eventual hybrid, face-to-face, and remote work models will generate (Shankar, 2020).

The objective of our study is to analyze how companies have responded to the COVID-19 pandemic, characterized, as described, by operational difficulties of all kinds and radical changes in consumer purchasing habits. Based on the analysis of the selected documents, this research question will be elucidated: what major trends will guide the steps of business organizations after the crisis?

The manuscript is structured in this way: identification of the research problem from the literature review (Section 1); a detailed explanation of the used methodology (Section 2); presentation of the results (Section 3); and, finally, discussion based on the results of the study and its limitations and implications for future studies (Section 4).

2. Corpus selection criteria

The research was carried out according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses PRISMA protocol (Moher et al., 2009). PRISMA was developed by a group of experts who identified the minimum criteria for systematic reviews for high-quality scientific publications. There is still no PRISMA extension for quick reviews, although the use of the PRISMA checklist increases the transparency of those (Kelly et al., 2016) and facilitates the traceability of the entire process, in general, and the flow of information in particular. Following the recommendations of Hartling et al. (2015), and aligned with the PRISMA proposal, our research was characterized by its transparency and the clarity of its purpose.

A four-stage process was followed starting from the research object: identification of relevant studies, selection of studies, mapping of the data, and synthesis and reporting of the results.

In the first place, the inclusion and exclusion criteria were specified and documented, as shown in Table 1. The aim was to identify proposals based on scientific studies, despite the fact that these are still few in number because we are still immersed in the pandemic. Since the dissemination in the scientific community of conference transcriptions and the impact factor of books and chapters are lower than those of scientific articles, both sources were excluded.

Table 1. Inclusion and exclusion criteria

Inclusion criteria	Exclusion criteria
Research articles published (or in press) in scientific journals. Published during 2020-2021. Written in English. In the areas of Business Management or Social Sciences.	Conference transcriptions. Books and book chapters.

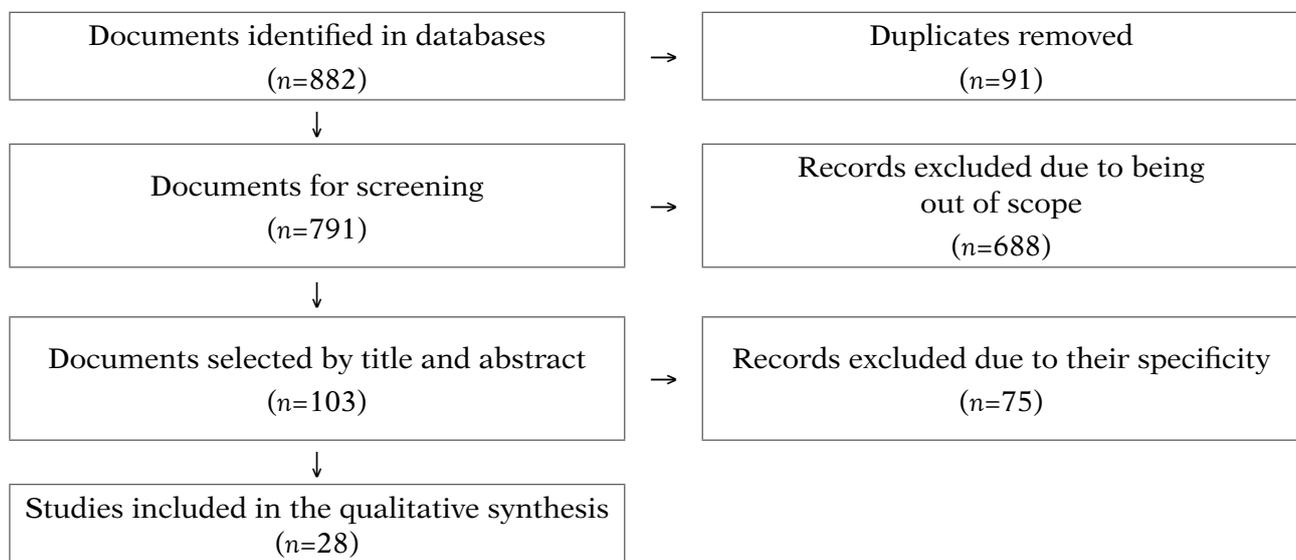
Source: Own elaboration.

An exhaustive search was then carried out in the Scopus (www.scopus.com) and Web of Science (<https://apps.webofknowledge.com/>) databases. To construct the optimal search equation, combinations of keywords and phrases related to business and COVID were used in SCOPUS on December 19. The search equation ultimately used, including limiters to take into account the inclusion and exclusion criteria, was: TITLE-ABS-KEY (business AND covid) AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re")) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (SUBJAREA, "SOCI") OR LIMIT-TO (SUBJAREA, "BUSI") OR LIMIT-TO (SUBJAREA, "MULT")). A search with the help of this equation and its analogue in the Web of Science resulted in 882 documents. The results were exported to EndNote, and duplicates were removed.

The detection and elimination of duplicate studies eliminated 91 citations, finally leaving 791 articles.

A review of the evidence, based on the title and abstract, was then performed. 688 studies were excluded as they did not fit the research objective from the perspective of the scope of the study. Then, an evaluation of the degree of interest of the 103 chosen documents was carried out, selecting those which made transversal and/or generalizable contributions to business models in a broad sense, and excluding specific results for products or geographical areas. In conclusion, 28 papers were selected for the qualitative synthesis. Figure 1 shows the inclusion decision flow diagram with the steps of the review decision process (identification, selection, eligibility, and inclusion) according to the PRISMA standard:

Figure 1. Flowchart of inclusion decisions



Own elaboration from Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).

The studies included in the synthesis are listed in Table 2 with all relevant data to inform the scope's review objective. The extraction fields were: title, first author, journal, and main contribution.

Table 2. Documents included in the qualitative synthesis

Title	First author	Journal	Main contribution
COVID-19 impact and survival strategy in business tourism market: the example of the UAE MICE industry	Aburumman, A. A.	<i>Humanities and Social Sciences Communications</i>	Importance of outsourcing as a source of cost variability
Cutting-edge technologies for small business and innovation in the era of COVID-19 global health pandemic	Akpan, I. J.	<i>Journal of Small Business & Entrepreneurship</i>	Difficulties of adaptation of SMEs to the new scenario due to their conservative culture in relation to technological changes
Small business awareness and adoption of state-of-the-art technologies in emerging and developing markets, and lessons from the COVID-19 pandemic	Akpan, I.J.	<i>Journal of Small Business & Entrepreneurship</i>	Competitive advantages provided by the implementation of cutting-edge technology
The Challenges and Opportunities in the Digitalization of Companies in a Post-COVID-19 World	Almeida, F.	<i>IEEE Engineering Management Review</i>	Impact of digital transformation processes on different business areas
Expanding entrepreneurial solution spaces in times of crisis: Business model experimentation amongst packaged food and beverage ventures	Björklund, T.A.	<i>Journal of Business Venturing Insights</i>	Importance of collaboration in times of crisis
The Future of B2B Customer Solutions in a Post-COVID-19 Economy: Managerial Issues and an Agenda for Academic Inquiry	Bond III, E.U.	<i>Journal of Service Research</i>	Adaptation of service companies in the B2B environment to the new reality
The role of business model innovation in the hospitality industry during the COVID-19 crisis	Breier, M.	<i>International Journal of Hospitality Management</i>	Incremental and rapid-deployment innovations in response to the crisis
Will COVID-19 be the tipping point for the Intelligent Automation of work? A review of the debate and implications for research	Coombs, C.	<i>International journal of information management</i>	Automation and implementation of Artificial Intelligence solutions in the new business scenario
Coopetition and COVID-19: Collaborative business-to-business marketing strategies in a pandemic crisis	Crick, J.M.	<i>Industrial Marketing Management</i>	Survival of collaborative models once the crisis is definitively controlled
Artificial intelligence in the agri-food system: Rethinking sustainable business models in the COVID-19 scenario	Di Vaio, A.	<i>Sustainability</i>	Artificial Intelligence in the creation and development of sustainable business models

Title	First author	Journal	Main contribution
Impact of COVID-19 pandemic on information management research and practice: Transforming education, work and life	Dwivedi, Y.K.	<i>International Journal of Information Management</i>	Importance of information management technology and its ramifications in the pandemic environment
The strategic change matrix and business sustainability across COVID-19	Hamilton, J.	<i>Sustainability</i>	Market Intelligence as a competitiveness tool in a complex framework
Reframing service innovation: COVID-19 as a catalyst for imposed service innovation	Heinonen, K.	<i>Journal of Service Management</i>	Strength Vectors in the field of innovative decisions taken during the crisis
Opportunities of frugality in the post-corona era	Herstatt, C.	<i>Hamburg University of Technology</i>	Frugality as a megatrend that can shape frugal "affordable green excellence" as the dominant paradigm of innovation
Business model innovation in established SMEs: A configurational approach	Ibarra, D.	<i>Journal of Open Innovation: Technology, Market, and Complexity</i>	Measures to ensure the successful implementation of innovations in SMEs business models
The triple-edged sword of COVID-19: understanding the use of digital technologies and the impact of productive, disruptive, and destructive nature of the pandemic	Kamal, M.M.	<i>Information Systems Management</i>	Use of advanced digital technologies to avoid loss of productivity, interruption in business operations, and destruction of companies
Business-to-business marketing responses to COVID-19 crisis: a business process perspective	Kang, J.	<i>Marketing Intelligence & Planning</i>	Responses to the crisis from marketing
New technologies used in COVID-19 for business survival: Insights from the Hotel Sector in China	Lau, A.	<i>Information Technology & Tourism,</i>	Specific technologies for the treatment of the new forms of relationships caused by the pandemic
Pivoting to stay the course: How women entrepreneurs take advantage of opportunities created by the COVID-19 pandemic	Manolova, T.S.	<i>International Small Business Journal</i>	Pivots of the business model in women-owned companies to simultaneously reduce risk and take advantage of new opportunities
New and novel business paradigms in and from China and India	Paul, J.	<i>European Business Review</i>	Geopolitical impact of decisions made by the companies of the two largest manufacturers worldwide

Title	First author	Journal	Main contribution
Resilience measures to dealing with the COVID-19 pandemic. Evidence from Romanian micro and small enterprises	Păunescu, C	<i>Management & Marketing. Challenges for the Knowledge Society</i>	Business fears in the face of the crisis and its impact on decision-making
COVID-19: A Huge Opportunity for Innovation in Marketing	Pillania, R.K.	<i>Indian Journal of Marketing</i>	The increased perception of risk has created opportunities for marketing innovations
Exploring the relationship between social capital, innovation capability and innovation during the coronavirus pandemic	Putra, I.	<i>Uncertain Supply Chain Management,</i>	Innovation and its link to business success during the pandemic
Navigating disruptive crises through service-led growth: The impact of COVID-19 on Italian manufacturing firms	Rapaccini, M.	<i>Industrial Marketing Management</i>	Importance of servitization business models, acceleration of digital transformation, and advanced services in the context of the pandemic
Sustainability learnings from the COVID-19 crisis. Opportunities for resilient industry and business development	Schaltegger, S.	<i>Sustainability Accounting, Management and Policy Journal.</i>	Learnings to achieve more resilient and sustainable businesses in crisis environments
Business models shifts: Impact of Covid-19	Seetharaman, P.	<i>International Journal of Information Management</i>	Redesign of products and business models for success in the new ecosystem
Business of business is more than business: Managing during the Covid crisis	Sheth, J.	<i>Industrial Marketing Management</i>	Implications of the crisis in B2B business
A systematic review and future directions of the sharing economy: business models, operational insights and environment-based utilities	Zhu, X.	<i>Journal of Cleaner Production</i>	Opportunities for collaborative models in the new COVID scenario

Source: Own elaboration.

3. Discussions and contributions to the state of the art

Crises are catalysts for trends (Bond III et al., 2020), as they inevitably lead to experimentation, introduce novel risk management mechanisms, require the redeployment of certain resources and accelerate the adoption of tools (in the studied case, the digital ones). The sudden onset of the pandemic has required companies to make decisions of all kinds. Sectors such as MICE (Meetings, Incentives, Conferences, and Exhibitions) have resorted to obvious operational measures, such as outsourcing, seeking to reduce operating costs (Aburumman, 2020). Kang et al. (2020) have identified nine urgent responses from marketing to the COVID crisis; proactively adjust products for emerging needs; coordinate suppliers to meet growing demand; migrate to digital

distribution channels; promote solidarity with all members of the supply chain; invest in advertising and promotion; encourage cross-selling, and support existing customers.

After the first and severe blow, companies from all sectors have reconsidered their sustainability: the research of Păunescu and Mátyus (2020) reveals how their main fears are the maintenance of the business from the point of view of financial sustainability, economic insecurity, and the high probability of job losses. The so-called 3Cs (competencies, capabilities, and competitiveness) offer an internal framework capable of moving the company towards that assured future (Hamilton, 2020). The “new normal” must be based on a conciliatory approach that ensures affordable access to products and services for the population, adequately manages society’s consumption of natural resources, and strives for technological excellence (Herstatt & Tiwari, 2020). It is also about generating learning to achieve more resilient and sustainable businesses in pandemic environments (Schaltegger, 2020) and systematically targeting stakeholders, measuring the satisfaction and well-being of the community, suppliers, customers, and employees (Sheth, 2020b).

This systematic review allows us to encompass the initiatives taken by companies to adapt to the complex situation generated by the pandemic around three major vectors: innovation, technology, and collaboration.

3.1. Innovation

Although the need to generate results in an environment of such high uncertainty has put extraordinary pressure on decision-makers, the confinements and the reduction in the number of operational activities have freed them time and allowed them to reflect at a strategic level, and in particular, analyze how innovation, in its various expressions, can contribute to the sustainable future of their organizations.

Innovations related to the value proposition have been the most common form of experimentation with regard to the consumer, most often taking the form of new products and services. The COVID-19 crisis has required, in the short term, that organizations look for digital options and identify ways to deliver their products and services with minimal and safe physical contact, as well as strategic positions and partners in the new ecosystem that could help them achieve it. To achieve this adaptation to changing times, companies have had to be extremely agile; exploit their dynamic capabilities (Seetharaman, 2020); squeeze the opportunities that marketing has brought them, such as bundling products, adopting rebranding initiatives, and even entering entirely new product categories (Björklund et al., 2020); and taking advantage of their social capital to create and expand knowledge about customers, raw materials and competitors and to obtain cheap, fast and useful information to generate innovation (Putra et al., 2020).

In severely affected sectors such as hospitality, business model innovation has occurred through small incremental changes that are rapidly implemented (Breier et al., 2021). In the services sector, the pandemic has forced companies to go beyond existing commercial strategies: innovations in this sector have been characterized by spatial flexibility, social reach, focus on health and the exploitation of technology, acting as engines of change, clients and their new role, external restrictions and the dynamics of institutions (Heinonen & Strandvik, 2020).

Not only the sector is a relevant variable for these purposes: gender (Manolova et al., 2020), country, or size also matter. Thus, the concentration of resources by the Government helps to create an external business environment that encourages companies to focus on adequate innovation and technological advancement (Paul et al., 2020). Regarding size, beyond the uncertainty and complexity that SMEs (Small and Medium Enterprises) face when innovating in their business models, the results of the

research by Ibarra et al. (2020) suggest that these types of companies should implement a specific set of capabilities, promote practices and routines focused on detecting customer needs, detecting technological options, conceptualizing and experimenting, collaborating and promulgating a clear innovation strategy for their business models. Contrary to the general perception, instead of stopping financing innovations during times of crisis, large companies have dedicated efforts and funds to generate innovations during these times of crisis, using COVID-19 as shock therapy to overcome internal resistance against innovation (Pillania, 2020).

3.2. La tecnología

In COVID times, technology is essential to improve competitive advantage and ensure survival. In today's competitive business landscape, small businesses with cutting-edge technology can create and maintain competitive strategies and set the stage for long-term growth and market leadership, differentiating themselves from the many others that resist adopting these solutions and are limited to the regular use of commonly used information technology infrastructure (Akpan et al., 2020a).

The pandemic offers an opportunity for the emergence of a new generation of entrepreneurs willing to lead the next industrial revolution and invent new ways of doing business using cutting-edge technology (Akpan et al., 2020b). Sectors severely affected by the pandemic, such as restaurants and hotels, can improve hygiene, promote social distancing and provide their customers with a compelling and personalized experience thanks to the use of new technologies (Lau, 2020).

COVID-19 has accelerated digital transformation processes not only in companies but also in individuals and public entities. The digitization of companies will increase the importance given to digital marketing and sales channels in companies and will promote teleworking and the consumption of technological products (growth of systems compatible with the Internet of Things; Artificial Intelligence; Big Data; robotics). More people will interact using hybrid communication mechanisms accessible from anywhere and not exclusively in the physical environment of companies and their homes. Cybersecurity and privacy appear as key elements in the adoption of these new technological solutions (Almeida et al., 2020).

As discussed in the introduction, the implications of this acceleration are numerous. Digital technologies can help create sustainable business models, increasing productivity, reducing production costs and emissions, and decreasing the resource intensity of the production process (Di Vaio et al., 2020). For example, there is consensus that Artificial Intelligence (AI) implementations can provide value to businesses. However, at the beginning, they are likely to focus on tasks that are highly predictable and routine. Second, anxiety levels in the workforce over automation are projected to be high due to the global recession and fears about job security. Third, AI implementation experiences suggest that business process performance improvements are often achieved by combining the technical capabilities with the soft skills of human workers in hybrid worker teams (Coombs, 2020).

In particular, a 360° paradigm shift is needed in the industrial sector, stimulating and developing the next generation of organizations, industries, and societies. The key is to co-work and co-create to generate data in real-time, reconsider the meeting of people and machines and create platforms for the joint creation of value, reinforce the areas of systems and information technology and, finally, develop digital infrastructures to manage secure communications and interactions online (Kamal, 2020). Industrial companies that take advantage of software-based and/or digitally-enabled services will be less affected by this type of crisis in the future (Rapaccini et al., 2020).

The pandemic has forced governments and decision-makers to re-evaluate how they use information and expand the use of technology to mitigate many of the social impacts of the spread of the virus (Dwivedi et al., 2020). The enormous challenge for managers is to get involved in this change, while trying to keep the business running, in the face of a different and uncertain future (Almeida et al., 2020).

3.3. Collaboration

In the fields of accommodation, transportation, educational services, housing, and tourism, excellent collaborative economy companies have emerged in recent years (Zhu & Liu, 2020). According to the research of Björklund et al. (2020), during the crisis, entrepreneurs have used their networks for collaboration and collective action, launching new products and services through collaborative sales channels, sharing vital information, and simultaneously helping third parties in their local communities. These actions have typically been incremental and have contributed to the development of internal capacities and relational and ecosystem capacities, further expanding their resilience and potential for future joint value creation.

Business-to-business cooperation has proven to be an effective B2B marketing strategy in a pandemic, as it has the potential to benefit organizations, their customers, and other stakeholders. Cooperative activities are made up of cooperative and competitive forces, so decision-makers choose with extreme caution the competitors with whom they collaborate, to avoid damaging outcomes. Once the COVID-19 pandemic ends, there are questions about whether these existing competition strategies will continue or end (Crick & Crick, 2020).

4. Conclusions and discussion

The way in which companies pivot their business models cannot be fully understood without taking into account the economic and social structure in which they operate. For these movements to be successful in times of crisis, they must simultaneously reduce risk and seize opportunities (Manilova et al., 2020). Companies have found themselves faced with the complex task of simultaneously managing what is close, the financial and operational difficulties caused by the supply and demand shock, and what is far, the uncertain future that is to come. The analysis of the data obtained through the used technique has allowed us to know the factors that have made the business models evolve to adapt to the crisis caused by COVID-19. In the first place, companies have evolved their portfolio of products and services to adapt it to the characteristics of a new reality plagued by restrictions such as, fundamentally, physical proximity. Second, technology has gone from being a future possibility to becoming a reality, which must support more efficient manufacturing processes, the rise of online commerce, teleworking, and the digitization of all organizational processes. Finally, the commitment to collaborative approaches, already consolidated in some sectors and aligned with the principles of social responsibility, has made it possible to channel the solidarity of the entire business ecosystem, aware of the need for mutual aid in times of crisis.

The fact that the pandemic is still active at this time has implied a limited selection and review of the literature, which is still scarce. To avoid confusing the end product of this research with a standard systematic review, the trade-offs and limitations of a rapid product compared to a systematic review have been explicitly outlined in the methodology section. Reducing the duration of the review process implies a greater risk of introducing bias: documenting the methodology and highlighting its limitations is one way to combat such biases (Grant & Booth, 2009). “Shorter and faster” may

not always be better, or even as good, but the information currently available does not allow us to conclude when to worry that the conclusions of a quick review may be wrong (Hartling et al., 2015). Furthermore, systematic reviews have their own limitations, which we do not reflect on here, and these limitations, therefore, apply to quick reviews as well (Møller, 2018).

Unfortunately, as a society, we find ourselves immersed in difficult times and with uncertainties about the evolution of the pandemic. The trends described will be consolidated, or not, depending on the scenario that finally arises. Future research work should delve into their impact and the link between them and the disruptions that they will undoubtedly end up causing.

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