

Post covid-19 management: The strategic role of enterprise digitalization

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Abstract

The ongoing pandemic of Covid-19 disturbed the social and economic life. This virus has accelerated the firm's digitalization and has created a situation of uncertainty about risks, strategies and best practices. On the bright side, Covid-19 has forced enterprises to operate in swiftly ways which revealed the firm agility and the great ability to adopt digitalization and remote working. This article concentrates on how the Covid-19 pandemic has affected the functioning of companies and highlighted the critical role of digitalization. In doing so, this research paper address the current lack to integrate between strategic management, Covid-19 crisis and digital entrepreneurship.

Keywords: Covid-19, Digitalization, Post covid-19 management, Digital entrepreneurship.

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1. Introduction

Covid-19 pandemic has caused serious damages to the health level and an unprecedented shock to the economy. The year 2020 will remain marked in history by the spread of this virus that has affected the entire world. On March 11, 2020, the World Health Organization (WHO) declared Covid-19 a pandemic and soon on October 13, 2022, there were 619 770 633 confirmed cases, including 6 539 058 deaths. ^[1]

The Covid-19 pandemic has threatened companies and the sustainability of their business processes. It raises major social issues for organizations in terms of health protocols concerning the protection of employees and customers' health, as well as remote work and environmental issues such as the fragility of organizations to the ecosystems disruption and the effects of air pollution added to major economic issues such as market developments, activities reduction and a bankruptcy risk. ^[2]

Before the start of Covid-19, the challenges posed to digital transformation were mainly focused on the fourth industrial revolution associated with the concepts of Industry 4.0, Internet of Things (IoT), Artificial Intelligence (AI) and Web 4.0 (Pflaum and Gölzer, 2018). During this era, the challenges have been exposed and it is

mandatory to rethink management and organizations. Indeed, the acceleration of digitalization and operational models forces organizations to recognize how digital platforms and new consumption habits affect their activities: pushing strategic thinking, strategic decision-making and improving the processes that facilitate establishing new business opportunities. ^[3]

Digital has transformed the "rules of the game" within several industrial sectors in terms of where and how to compete, which business model to choose and the relative importance of creation versus value capture. For that reason, it is important to start thinking about post-Covid-19 management and, above all, to explore how to take advantage and transform these challenges into new opportunities. Therefore, this article exploits the gap in the literature by linking strategic management and digital entrepreneurship towards Covid-19 crisis. ^[4]

This article is structured as follows: First, the literature on the impact of covid-19 is discussed. Then, some aspects of company's digitalization such as the business model are addressed. In addition, contextualizing the effect of Covid-19 on companies and how digitalization plays a strategic role.

Thus, a discussion that emerges from the literature intersection between strategic management and digital entrepreneurship is developed which allows a better conception of post-Covid-19 management. [5,6,7,8,9,10,11,12]

2. Impact of Covid-19 Pandemic on the Business

March 2020 was the date when six major countries were affected by a main health crisis and had the most cases of Covid-19: China, Korea, Italy, Japan, USA and Germany. These represent 55% of global production and demand, 60% of global manufacturing output, and 50% of global manufacturing exports. This epidemic is a real tsunami that has changed the global economic landscape and the businesses life from retail to restaurants, including mass distribution. Moreover, the general confinement from March 2020 also caused various disruptions such as production shutdown, departure on technical unemployment, project stoppage, interruption of international trade operations, and disappearance of some activities. According to the International Labour Organization report, the pandemic has put about 114 million people in the world into inactivity, including about a fifth in the OECD area alone, which involves the 37 richest countries on the globe. [13]

The Covid-19 crisis has left significant traces in organizational systems. In fact, it was an opportunity to make a global crisis the trigger for beneficial organizational change. Thus companies are forced to digitize to maintain a productive activity. Indeed, during the telework period the level of digital maturity directly impacted the performance of companies. Those who have an initial culture of digital tools were able to ensure effective continuity of their activities. While, the others firms more behind with digital trends had to implement quick solutions to insert the company into a digital organization. [14,15,16,17,18,19,20]

In this regard, digital innovation capabilities are strategic to continue operating in the post-Covid-19 era. Nevertheless, the success of this transformation depends on an intelligent company characterized by a capacity of dynamic self-management and continuous adaptation. [21,22,23,24,25,26]

3. Digitalization: a Strategic Challenge

The digitalization of companies is an economic and societal issue dictated by the success of the digital economy. Actually, this phenomenon is a profound change of paradigm. Furthermore, it is not limited to the intensive adoption of tools and technologies, to the dematerialization of internal or external processes, but to rethinking economic models, supplying chains value, competitive environment, organizations and their functioning, working methods and daily life of employees. [27,28,29,30]

Digitalization is defined as the exploitation of digital opportunities. This is the socio-technical process that allows the company to benefit from digital products

or systems in order to develop new organizational procedures, business models, or commercial offers. Nonetheless, digitization is the process by which analogue data is transformed into digital data. [31,32,33]

The Covid-19 pandemic has confirmed the importance of digitalization and also accelerated the reliance of digital technologies such as websites, social media, smartphones, blockchain, automation technology, big data, 3D printing and platforms. These technologies have enabled companies to effectively insert in innovation and R&D activities, as well as exploit new market opportunities. [34,35,36,37]

The adoption of digital solutions is the main response of many companies to the pandemic and has paid off, as companies have been able to quickly switch from physical to remote work. As a result, most companies are following an accelerated pace of digital transformation according to international digital decision makers surveyed by Statista. [38,39,40,41]

First, digital technologies facilitate the rapid sharing of information, allowing many organizations to operate in a more flat and less hierarchical manner. This tendency to move away from traditional hierarchical structures has been going on for several decades, although it has accelerated in recent years due to the emergence of self-organizing practices. Furthermore, digitally advanced companies are structured to make them flatter, more agile and more able to deliver value.

In addition, digitalization is a source of reduced photocopies and printers, a low need for repair and maintenance of equipment, as well as related papers and supplies. By moving from physical paper to digital access for the storage, dissemination and processing of information, companies can improve their processes and reduce the costs associated with administrating and processing. Mainly, operating digital platforms can diminish operational costs, bureaucracy and costs associated with commuting and business travel, which is translated into significant savings for employees. [42]

The Covid-19 crisis has driven companies to develop and increasingly use video conferencing and distant collaborating tools to improve remote work processes. Indeed, Facebook, Twitter and other companies that make extensive use of digital technologies allow employees to "become roving nomads forever" thus generating a platform for recruiting the best talent and evaluating employees.

Firms that have performed better during the pandemic in terms of digital adoption or adaptation have demonstrated some important common characteristics: technological readiness (virtualization, cloud technology) and developed cyber security, including identity and access management. [43]

Currently, companies should rethink the set of metrics used to check the performance of their operations and priorities. Hence, it is crucial to maintain the investment in digitalization by developing initiatives

that offer support to employees, as well as those that give potential revenue growth and / or a reduction in costs by optimizing processes while avoiding reductions related to wages or resources (De Lucasancillo et al. 2020).

4. Business Model

To cope with a crisis, organizations can react in different ways ranging from restructuring business practices to reducing production. How an organization reacts will determine its ability to have a sustainable business model that survives in the market (Ratten, 2020). A business model explicates how a firm creates and delivers value to customers and the mechanisms used to hold some of that value .

BM represents principles and relationships in business activities for planning, communication, or improvement purposes. The BM must answer the age-old questions of Peter Drucker: who is the customer? What does the customer value? How does a business make a profit? What is the underlying economic logic that explains? how a business can deliver value to its customers at an appropriate cost .

In addition BM helps explaining business competitiveness by defining the approaches and methods by which a business builds and uses its resources to deliver better value to its customers (Di Tullio et al. 2018). The BM supports the integration of value capture and value creation within a company especially when it is used as a unit of analysis in strategic management research. Demil et al. also postulated that BMs foster a holistic understanding of differential firm performance (strategy field) and opportunity development (entrepreneurship field) based on the global design of activities that explains how companies achieve their business.

BM is a unique configuration of three mutually relevant dimensions: value proposition, value creation and value capture. First of all, the value proposition dimension represents the portfolio of solutions offered by the firm and how the company provides these solutions to its customers. Then, the value creation dimension explains how the company generates value throughout its value chain according to its resources and capacities while, the last dimension: value capture refers to how the firm transforms its value proposition into income .

Zott et al. confirmed that the survival of companies depends on their capability to innovate their BMs. BM innovation means the search of novelties for the firm and new ways of creating and capturing value for its stakeholders. In addition, business model innovation (BMI) emerges as a strong response to the COVID-19 crisis .

Some researchers have defined three different ways in which digitalization influences companies and their BMs: optimizing the current BM such as optimizing

costs, the transformation of the present BM as the reconfiguration of current models, and the development of a new BM especially through new products / services . However, Matzler et al. described these three stages as follows: first, the digitalization of products and services; second, digital processes and decision-making using Industry 4.0, Big Data or artificial intelligence and third, changing the value proposition and operating model.

5. Digital Entrepreneurship

Entrepreneurship is a multidisciplinary field that continues to develop in order to brace economic and social innovations. Kuckertz et al. reported that entrepreneurs sought new opportunities and set new directions for their businesses during crises. In fact, entrepreneurial activities could compensate the negative repercussions of crises by maintaining the flow of goods and services as well as restoring the confidence of other business holders and the society at large.

In latest years, a new form of entrepreneurship has just been added: the digital entrepreneurship. Generally, this concept has acquired greater clarity since the end of the 2000s. Digital entrepreneurship is defined by Hull et al. as a subcategory of entrepreneurship in which all or part of what would be physical in a traditional organization has been digitized involving the use of the Internet. These authors propose in their study a typology of digital entrepreneurship corresponding to the degree of digitalization: light, moderate and extreme digital entrepreneurship.

Then, light digital entrepreneurship consists of venturing into the digital economy in addition to more traditional places. Moderate digital entrepreneurship requires a significant focus on digital products, digital delivery, or other digital components of the business. Whereas, extreme digital entrepreneurship refers to the whole digital business, including production, goods or services, advertising, distribution, and customers.

Digital entrepreneurship is therefore an entrepreneurial orientation that makes it possible to exploit digitalization where artificial intelligence can be used to improve the quality of decisions. Computing, storing and retrieving information not only become easier, but also more flexible and economical as cloud services continue to progress.

Thus, digitalization is no longer only a source of competitiveness thanks to its potential for creating and developing new opportunities, creating value and income, but also facilitates the response to certain challenges of the current health and economic crisis, for example, the teleworking, the new conditions of international business practices and the reduction of professional trips abroad.

Therefore, digital entrepreneurship facilitates interaction with the digital environment where consumers and businesses interact, and offers a significant amount of information that firms can

exploit for their own business purposes (Kraus et al. 2018). Access to this large quantity of information gives entrepreneurs the opportunity to analyze the expectations of potential clients while traditional (non-digital) entrepreneurs do not have the same access to information .

Digital entrepreneurship is therefore seen as an asset to overcome this crisis caused by Covid-19 virus. Indeed, companies able of using digital technologies can optimize their business processes, boost their growth, strengthen the effectiveness of their strategies, their performance and even access the international market.

6. CONCLUSION

The Covid-19 pandemic has deeply disturbed society and economic world. Current business practices and strategies need to be adapted for the “new normal”. This means new approaches that rely on entrepreneurial thinking and leverage digital technologies are required to persist in marketplace. The purpose of this article is to discuss the strategic management and digital entrepreneurship towards Covid-19 crisis. In particular, the strategic role of company’s digitalization and digital entrepreneurship that have been put forward as assets for the post-Covid-19 period.

At this digital era, the acceleration of digitalization has become an imperative and no company can escape its influence. Digital capabilities allow companies to improve customer relations and experiences, reorganize operations, communicate information in real time, and create new business models leading to seize new business opportunities. Consequently, digitalization offers companies the possibility of boosting growth, increasing profitability and being more agile to face external threats.

Digital entrepreneurship can be a bridge for companies in period of crisis. In fact, digital entrepreneurship offers the means for company to adapt its strategies and its workforce to deal with this acceleration of digitalization and obviously the repercussions of Covid-19 crisis. This means that future research will focus on how digital entrepreneurship can be used as theoretical framework to lead strategic management to understand what kind of new products or services are needed for the marketplace.

The catalytic role of Covid-19 pandemic has enabled companies to gain resilience and agility. The agility of company reinforced by the digitalization of its working methods can represent the starting point of post-Covid-19 management. This means new ways of thinking are required due to the ongoing Covid-19 crisis and uncertainty. Certainly Covid-19 pandemic has harmful impacts on the company's activity. Nevertheless, it represents an important opportunity to invest in digitalization and gain thus in terms of agility and digital capabilities. This means that future research can develop the roles of firm agility and digital

capabilities in business continuity within VUCA world.

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