

THE IMPACT OF DIGITAL TRANSFORMATION ON STRATEGIC MANAGEMENT

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Abstract: *Currently, there are many discussions about the impact of digital transformation on company management, with success primarily reliant on firms' ability to adapt to new market demands. Consequently, to maintain their positions or to evolve, companies across all industries need to regularly update their structures and ideals in line with digital transformation. Although the precise definition of digital transformation is still unclear, as evidenced by inconsistencies in the literature, it is already influencing management practices carried out by companies. The goal of this paper is to analyze the impact of digital transformation, with its highly dynamic characteristics, on strategic management. In this sense, we perform a literature review of the papers which describe how the two topics are related. We discover that strategic management has evolved in response to digital transformation as conventional managerial practices nowadays would no longer work at maximum efficiency. Strategic management has changed, adopting new features, most notably faster decision-making and less arduous tasks for top managers, allowing them to focus exclusively on performing tasks that match their specific competencies. These results are useful for both practitioners and researchers in performing their daily strategic management activities, and research efforts, respectively.*

Keywords: digital transformation, change, strategic management, leadership, digitization.

JEL Classification: M10

1. Introduction

In the last 10 years, there has been so much interest in the study of digital transformation that even the business world has become interested in studying this phenomenon, in addition to researchers, who already have the study as their main activity (Rêgo et al, 2021). Additionally, most businesses are under strong pressure to revamp their operating systems in compliance with the new regulations introduced by digital transformation (Rêgo et al, 2021). Despite the attention given

to digital transformation, its meaning is not completely comprehended, leading to some differences that may occur in studies (Gong & Ribiere, 2021).

Strategic management has long been a crucial element of the economy, but it is necessary to update principles over time in response to changing market demands. The dynamic nature of the digitalization process has prompted changes in strategic management practices, highlighting the significant influence of digital transformation on this field. The emergence of digital transformation has brought changes in strategic management, particularly in the incorporation of technology into its processes. As a result, top managers can now focus on identifying and solving the critical issues that arise in a company, utilizing their specialized competencies, while technology assists with the less complex tasks. Until the advent of technology, strategic problem-solving managers were faced with various impediments that caused them to lose time and concentration. However, the research on the impact of digital transformation on strategic management, although it is acknowledged that digital transformation affects various aspects of modern society, has been less considered in the literature.

In this context, we aim to contribute to the rather unanswered question of how digital transformation affects strategic management. In this regard, we perform a literature review of the most visible papers, analyzing how these topics are interrelated, by considering the most relevant articles concerning digital transformation and strategic management, such as Vial et al. (2019) and Ribiere (2020). These have been analyzed by concerning the changes they identify concerning strategic management and changes associated with the digital transformation phenomenon. The article has the following structure, by considering the major topics identified while reviewing the articles: in the first part, we describe the concept of digital transformation, followed by a discussion on the role of the leader in the digital era. The third section analyzes the impact of digital transformation on strategic management, and the last part concludes.

2. The Digital Transformation Phenomenon

Nowadays, technology seems to be taking over more and more spheres of activity, and many companies redesigning their business in such a way that without technology they would be unable to operate. Practically, the whole of society has become dependent on technology. The development of digitization has led to a strong change in business around the world. Thus, companies, regardless of their industries or age, are encouraged to adapt their business model, including aspects related to digital transformation. It is important to do this to count on the market (Fernandez-Vidal et al., 2022). The emergence of digital technologies has also

fundamentally changed both the nature and scope of existing market competition and consumer behavior (Wrede et al, 2020).

Many industry leaders are referring to this technology transformation as a digital transformation. This term is used to describe various strategic and organizational changes (Gong and Ribiere, 2021), and due to its complexity, it involves numerous scientific disciplines, while having a direct impact on professional practice (Gong and Ribiere., 2021). Although existing studies support the fact that the level of research depth for digital transformation is deepening, it is evident that there are gaps in understanding this concept (Gong and Ribiere, 2021), and these gaps leave their profound mark on the many levels of analysis (Vial, 2019), which creates various contradictions in field studies (Gong and Ribiere, 2021). At the same time, academics and practice groups do not share the same views on digital transformation's fundamental and actionable features of this digitization process (Gong and Ribiere, 2021), and the understanding of the essence of this concept is lost. However, despite its complexity and understanding by the literature, digital transformation requires continuous evolution of all scientific disciplines to achieve scientific progress and build sustainable knowledge (Gong and Ribiere, 2021). It is also very important that this progress is achieved through a more careful and systematic differentiation, leading to an improvement in the complexity of the process (Mertens and Wiener, 2018). Observing the trend in the global economy, companies around the world have redefined themselves through digital transformation. These have been defined by Vial (2019) as a process that generates strategic and operational changes in the company as a result of opportunities and threats generated by digital technologies.

Digitalization has resulted in a complete redefinition of the entire economy. The degree of international competitiveness between new digital companies, being companies founded recently, thus young firms, and traditional companies, well developed over time and stable over the years, is an extremely strong example to argue this hypothesis. In 2004, the S&P 500 stock market index ranked General Electric, Exxon Mobil, Microsoft, Citigroup, and Walmart (Wrede et al, 2020) as the most valuable companies at the top of the ranking, with only one digital company in the true sense of the word, the others being in the traditional economic categories. A re-examination of the rankings 15 years later revealed a radical change in the companies at the top, including a radical change in the field in which they operated, with digital companies taking the lead. These are Apple, Alphabet, Amazon, and Facebook (Wrede et al, 2020).

Digital transformations in companies can be divided into 3 categories: automation, extension, and transformation (Rego et al, 2021). Automation refers to the use of

digital technologies by a company to automate its entire business or to improve processes and activities that the company currently carries out without using digital technology. The extension illustrates cases where a company uses digital technologies to support the development of alternative ways of doing business, ways that complement but do not replace the processes and activities that the company currently carries out. Transformation is when digitization is used in the business process, renewing its core techniques.

Many companies are currently undergoing digital transformation. According to a Deloitte survey from 2020, 87% of CEOs consider digital transformation an important strategic goal of their business. This statistic is extremely encouraging, highlighting the benefits of digital transformation for companies, businesses, and society. However, digital transformation also brings numerous challenges, one of the most generally valid is that of throwing the company into unknown, uncharted territory, which can stir up anxiety and resistance among some managers and, in particular, employees. All employees need to be part of the digital transformation, the digital transformation being in essence the equivalent of a comprehensive transformation of the entire business.

Digital transformation has emerged in companies across the economy, from manufacturing to companies operating in areas such as healthcare and education. Companies have transformed their business model, using digital technologies to stay competitive in the marketplace. Failing to adapt to the digital economy can result in "Digital Darwinism," where businesses that resist change risk being replaced by more adaptable competitors. Digital transformation has an important impact on consumer behavior. Consumers' purchasing habits have shifted, increasingly preferring online purchases. The increasing volume of online sales reflects this shift in purchasing habits. According to Statista, in 2019, online commerce (e-Commerce) held a 14.1% share of total global sales, but researchers predict it will grow to 22% of total global sales by 2023.

3. Strategic management and digital transformation

"In times of change, the greatest danger is to act with yesterday's logic." Peter Drucker (1909-2005)

Companies have undergone several changes as a result of the digitization and climate change processes enabled by modern technologies. These changes require new skills from top management, particularly in developing the company's human resources (Vidal et al, 2022).

For a company to successfully cope with the changes brought by digitization, strategic/top management must initiate certain changes. But to initiate this change process, top management must first be convinced that a change is needed both in terms of the current top management activity and structure, as well as in terms of the company in all aspects that can influence the company's productivity. It is also necessary for top management to recognize the positive effects of the proposed changes to drive the change process forward. The chosen change process must bring success to the organization, as well as its development in various aspects. The motivation for change coming from strategic management is given by the desire to cope with the increasing competition in the market and the desire to run a digital company. Thus, one of the most widely used and simplest ideas for company change, used by top management, is to abandon old habits and paradigms in favor of new organizational cultures that prioritize digitalization. It is important to note that digital transformation is not possible without a leader who creates the platform on which it can develop and leads stakeholders toward concrete action. This shows how important leadership is to a company's digital transformation, regardless of the nature of its business. The leader is the person who provides thoughtful application of technology to drive the company toward sustainable company development (Graima Sainger, 2018).

For top managers/strategic managers and those who are considered by companies as playing a key role in their leadership, (Wrede et al, 2020) digital transformation represents a change in the decision-making context, which inevitably leads to real challenges. Because digitization is a relatively new process, top managers cannot rely on already known and proven approaches. Instead, a new assessment of the company's current situation is needed, to create new responses that meet new requirements in the market (Wrede et al, 2020).

The role of managers is critical in the smooth running of organizations. In the new context, where digitalization dominates the economy, managers have roles adapted to this situation, so that in addition to their classic responsibilities, they will have the obligation to coordinate changes in the company. Given the expanding roles of managers, it is understandable that the challenges arising from digital technologies and digital transformation processes necessitate the development of new skills and capabilities from managers. The literature is increasingly focused on identifying the key skills required for leaders in a digitized market. Many studies are analyzing these skills to promote harmonious development. However, researchers are questioning the extent to which digital companies require different leadership skills compared to traditional ones (Cortellazzo et al, 2019).

The literature emphasizes several key skills necessary for a leader during digital transformation, including effective communication through digital media, quick decision-making, adeptness at managing connectivity, and technical proficiency.

Communicating through digital media

Due to global interconnectivity and the fact that information is transmitted at an astonishing speed, the degree of competition in the market has greatly increased and digital companies have to cope with the various changes occurring in this very environment, both in terms of customer preferences and those arising from the evolution of technology (Wrede et al, 2020)

Thus, top managers should apply a more comprehensive way of leadership (Wrede et al., 2020), considering to a large extent the ideas of subordinates. Considering the ideas of non-managerial employees is extremely important, as they are the ones who implement all decisions made by strategic management, and at the same time, they are the ones who first realize whether the ideas put into practice are effective or not. Also, without executing employees, top managers would not be able to perform their roles in companies. Adopting a two-way style of interaction and communication enables leaders to gain direct insight into employee perspectives on changes, increasing their sense of importance. At the same time, researchers argue that giving employees more autonomy and the opportunity to participate in the management of the company will substantially increase their sense of responsibility for the work they do and their attachment to the company. This, in turn, should lead to a need to control their behavior, a function previously exercised by managers (Wrede al., 2020)

Rapid decision-making

The advent of technology in companies has profoundly changed organizational life from many perspectives, one of which is the increasing speed. Studies indicate that digital firms are being forced to make decisions faster (Cortellazzo et al, 2019). This context suggests that digital leaders should possess specific skills, such as decisiveness and the ability to solve problems effectively (Cortellazzo et al, 2019) To cope with different situations, leaders must first tolerate ambiguity but also prove creativity (Cortellazzo et al, 2019). In the digital world, leaders must scrutinize problems and provide answers to various situations that arise within companies. With the use of information technology, leaders can make more informed decisions. Therefore, the ability to process large volumes of data (input/output - Big Data),

analyze and prioritize them for decision-making has become and will continue to be important for a leader's activities in the future.

Managing connectivity

In the current era, leaders operate in a highly interconnected environment, especially with the ubiquity of social networks and other digital platforms, which offer new opportunities by facilitating access to a larger group of people.

Studies argue that digital leaders need to boost their networking skills, as doing so will enable them to identify various opportunities more easily. As innovation has become a top priority for many digital leaders, they need to understand how they can reap the benefits of networking (Cortellazzo et al, 2019). Also, in addition to the need to explore and obtain both resources and stakeholder support (Cortellazzo et al, 2019), leaders need to develop their social interaction abilities, as these appear to play an extremely important role in innovation development.

While any leader must have the ability to maintain social relationships with various stakeholders, an effective leader is differentiated by the ability to recognize those relationships that will lead to tangible benefits (Cortellazzo et al, 2019).

Several other essential skills define a successful manager in the context of digital transformation, including agility, which refers to the ability to foresee market opportunities that arise from digital technologies and to act upon them quickly and adaptively.

Additionally, possessing advanced technical and digital capabilities and a deep understanding of how digital technologies can enhance the company's competitiveness, are almost indispensable traits for new managers.

4. The impact of digital transformation on organizational strategies

There is no doubt that digital technologies are almost ubiquitous in everyone's life lately (social networks, mobile phones, cloud) and have a huge impact on both organizations' and individuals' personal lives (Colbert, Yee, & George, 2016). Thus, organizations must reevaluate their entire business model, including the provided products and services, to align with the new concept of digital transformation (Rego et al, 2021), integrating all these new technologies into the new business systems because competition in markets is increasing and digitization is perceived as the future of all humanity. To compete successfully in a digital world, companies need to attract skilled employees who are familiar with the latest technological developments. Successful digital transformation is recommended to involve both

re-engineering and optimizing all processes in a given company in a way that is fully in line with the strategy adopted by the company.

Digital transformation considerably influences the different stages of the innovation process in an extremely complex and sometimes ambiguous way, due to the extremely wide variety of technologies used, but also due to the numerous ways in which digitization claims to increase the performance of goods and services, respectively.

Digital transformation strategies are important because they reflect the pervasiveness of changes brought about by digital technologies in an organization (Chanias and Hess, 2016). To keep pace with the evolving market demands, organizations need to re-evaluate their traditional business models that have been solid for many decades. While these models have proven their effectiveness, with the economy in constant change and enterprises needing to keep up with new market demands, companies need to transform their business models to adapt to these trends (Kotarba, 2018; Riasanow et al., 2017).

Although many studies attempt to provide a standard process for the digital transformation of companies that is generally successful, digital transformation is a different, particular process that applies to different companies in many ways, so it is impossible to generate a standard recipe for the digitization that is generally successful, as each company creates its process.

Digital transformation has many benefits for companies, including financial benefits. According to a study by the Massachusetts Institute of Technology, companies that have gone digital are 26% more profitable than normal companies. An important element of digital transformation is illustrated by establishing a strategy based on a clear vision for business development and addressing the opportunities offered by new technologies. Without establishing such a strategy, the vast majority of companies focus more on the technological process, instead of the main focus falling on customer needs and determining the most efficient way to meet them.

Thus, digital transformation can be considered successful if the company has a well-developed strategy that is always up-to-date with the changes that are constantly occurring in the market, and also strong leadership. To implement a digital transformation of the company, changes are needed in key aspects of the company, such as strategy, leadership, and organizational culture. Business practice studies have shown that a successful digital firm needs to meet several conditions, some of which are: having a developed strategy, top management commitment to change, active involvement of all employees in the digitization process; and a company-wide focus on customer needs and interests.

Studies in the field of information systems have long shown that digital transformation within a company implies radical changes for that organization (Scott Morton, 1991). Changes often also involve numerous challenges, and in the case of digitization of the activity of a business entity, these most often have to do with the strategy and the realization of extremely rapid digitization (Markus and Benjamin 1997), the complete reorganization of processes within the firm, but also with the organizational structure and the existing culture (Ashurst et al. 2008).

One of the main impacts of digital transformation refers to project management. Mobile hardware, cloud computing, and integrated software are just some of the benefits it has brought in practical ways to the lives of companies everywhere. These digital tools are currently used for data storage, automated information search, and simulation functions (Whyte, Sta-sis, and Lindkvist, 2016). Thanks to cloud-based technologies, contacts with customers or product recipients are changing and can also be done remotely (Guinan, Parise, and Langowitz, 2019).

5. Conclusion

Digital transformation is now a reality rather than a utopian concept. It has become so pervasive in today's economy that the majority of strategic managers cannot envision running their day-to-day business without it. Furthermore, we can now say that the digital transformation of any company's activity is a criterion for economic success since it has an impact not only on the economy but on society as a whole. Moreover, it has changed market requirements to the extent that customers demand that certain services be digitized. Basic digitization involves simple and natural tasks, such as presenting products and services online and electronic invoicing.

Digitization means evolution. Our stance is supported by research on several companies that have revolutionized their operations using digital principles. The findings indicate that digitization has only served to simplify people's tasks by automating manual and repetitive tasks that don't require human intelligence. As far as strategic management is concerned, the main responsibility of a top manager is to enhance a company's value, while influencing the factors that are beneficial to the organization.

At the same time, for a strategic manager, the most important resource is time. Digitization significantly transforms strategic managers' work styles by simplifying their tasks. Through technology, unimportant activities can be automated, allowing them to concentrate exclusively on accomplishing vital objectives within their area of expertise. Digitization also enables strategic managers to carry out planned tasks in a shorter time while accessing superior-quality information from numerous digital sources, diminishing the need to filter and assimilate data.

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