



Digital leadership in business organizations: an overview

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ABSTRACT

The main aim of this report is to identify and describe the idea of digital leadership. For the study, the effects of digital leaders' traits and experience on the digitalization process will be examined. Different multinational and global businesses have been examined to apply the concept of digital leadership to their businesses. In this paper, with the goal of an organizational literature review, we analyze the concept of digital leadership. The paper seeks to identify the digital leadership concept; to analyze these abilities and their impacts deeply in the new digital age. As a result of detailed literature research, digitalization and technological developments lead businesses to transform organizational structures, processes, business models, and strategies. Digital leadership is crucial for organizations to survive in the new digital era by adapting and transforming business strategies. To accomplish business objectives and successfully drive the digital business transformation, digital leaders use and enhance the company's digital assets. Digital leaders have different abilities and perspectives compared to traditional leaders. However, many organizations do not understand digital leaders' value, leading to poor performance and unrecoverable failures. This research paper demonstrates a strong link between digital leadership and corporate success and productivity, following the analysis and clarification of the digital leadership concept generated in the modern age and the review of variable business strategies and positioning of the leadership concept in different sectors.

Keywords: Leadership; Digital Leadership; business Organizations; Overview;

INTRODUCTION

Most companies that compete globally have been transformed into digital companies (Abollado & Shehab, 2018; Barchiesi & Fronzetti Colladon, 2019; Berné-Martínez et al., 2021; Cabras et al., 2017; Palmié et al., 2020). With the advances of recent digital technologies and

the rise of threads in the digital space, traditional processes and business models are changing (Holzmann et al., 2020; Wesseling et al., 2020). Digital technologies are disrupting the constraints facing businesses and their strategies. Under new demands and conditions, businesses need to adapt and thrive. Without digital leaders who are experts in strategic thinking and using improvements in each digital technology wave to create new business opportunities that add value to their clients, this adaptation can not be made. For companies to survive in the new digital era by adapting and transforming business strategies, digital leadership is crucial. A strong digital leader will help define the digital business strategy, resulting in high business performance in turn. In the last few years, by moving away from traditional structures, organizations have been trying to create better organizational structures that are well aligned with new management and appropriate leadership approaches for this task.

Most companies today are developing new digital business strategies, but they do not necessarily understand the role of digital leadership in this process (Abbu & Gopalakrishna, 2021; de Villiers et al., 2020). Poor business performance results from the lack of digital leaders in such companies. To manage digital transformation, digital leaders are expected to have the necessary equipment, but there are significant shortcomings in both technology dominance and process management. The research study's main aim is to explore digital leadership's notion with the purpose of relevant literature review in the organizational framework. Therefore, this paper discloses a positive correlation in the new era between digital leadership and organizational performance and productivity. Although many industries are moving through a more effective globalization process, global industry strategies are reframing how digital leaders act to better understand this process's transformation based on their characteristics, knowledge, and experience.

Digital leadership's role in organizations

Digital leadership is the use of digital assets of an organization to achieve business goals at both organizational and individual levels (Dimitrios et al., 2013; Thomson et al., 2016). In many companies, recent digital technologies have been driving significant changes in competitive and organizational environments and roles. The changes are required in many organizational dimensions such as roles, work culture, and technologies. Transformation programs are designed to drive adjustments to address tangible short-term requirements while creating a new basis for an uncertain future. Digital leaders need to have a set of skills to alleviate these challenges and help organizations move forward with the transition (Frank et al., 2019; Somerville, 2013). Therefore, as a new skill set is required to effectively lead the organization into an uncertain, more dynamic future, leaders have a significant impact. For example, it is a significant challenge for digital leaders to inspire people to work with the new set of technologies that may or may not be used due to the digital future's uncertainty in its essence. Today, many leaders do not have the skills necessary to be a robust digital leader, but the good point is that they are beginning to develop the skills needed (Katsos & Fort, 2016). The following common skills set should be available to strong digital leaders (Luck et al., 2012): 1) Providing vision and purpose, 2) Creating experimental opportunities, 3) Enabling people to think out of the box, 4) Enabling vertical and horizontal teamwork across teams and groups, 5) Enabling strong communication within and across teams and organizations, 6) Developing and driving business strategy, 7) Cooperating.

Traditional Leadership Versus Digital

In order to succeed in the post-digital world, digitalization has significantly altered leadership skills and style. Several research studies have been carried out in Western and Asian societies on the perspectives of leaders and followers, and it has been determined that different industries are useful in creating and developing different leadership styles (Arokiasamy et al., 2015). According to recent surveys, 95 percent of organizations believe that a newly defined leadership type must be created to structurally and operationally adopt the organization to remain competitive in the sector (Charlier et al., 2016). Charlier et al. (2016) also argue that the method is unavoidable. However, only 37% of companies believe they have a robust digital leader today (Link, 2018). Another example is the recent Deloitte reports for South Asian companies that show that although 87 percent of respondents believe digital and transformative leadership is essential, only 5 percent have a strong digital leadership program (Malloch, 2014; Thomson et al., 2016; Xanthopoulou & Papagiannidis, 2012).

Charlier et al. (2016) state that in any organization, effective leadership is crucial. To make decisions and provide valuable guidance to employees during significant projects, provide direction in meetings, or counsel staff as needed, each company needs a robust digital leader. For more efficiency, higher productivity, and the highest quality of services, a robust digital leader understands when it needs new modern technology. Digital leaders acknowledge that technological changes are the main contributing factor to significant changes in every company. Besides, a successful digital leader must ensure that organizational functions are aligned with the external environment by directing the strategic level of organizational and human resources under organizational strategic objectives (Thomson et al., 2016). Brunswicker et al. (2015) also stress that all kinds of leadership are important as the leader illustrates his/her staff by applying and adapting the company's code of ethics beyond technology and digital age adaptation.

Muller (2020) states that digital leadership implementation involves using computers of real-time decision-making and real-time feedback processing power to the greatest extent possible. Muller (2020) also added from the Sloan School of Management article from MIT that 87 percent of executives said that by adding to the lack of understanding, the digital revolution broke down industries. Furthermore, only 11% of these executives believe that it is the duty to overcome the existing talent pool. It was also included in the 2017 Deloitte study, which proposes businesses that want to encourage digital leadership by moving away from more traditional hierarchical structures and creating networks of Muller (2020) problem-solving teams. Other recommendations mentioned by Muller (2020) include a more agile leadership style that responds quickly to crises, a more familiar system of responsibility, an increase in the use of digital platforms such as Slack, promoting employees' constant feedback and communication.

In August 2014, “the Leading Edge Forum Report, Leadership and Digital Leadership Becoming One and the Same”, recognized that digital leadership is significantly different from traditional leadership in many other aspects. The traditional leader is a single, goal-oriented authority that makes choices. In structural regimes, he or she excels with a clear definition of roles and tasks. However, for more dynamic situations with a high level of ambiguity, the

digital leader is better suited. He/she drives the organization's creativity and innovation and helps the teams to move forward (Gozman & Willcocks, 2019; Hassani et al., 2017). While the traditional leadership style is defined as the type of leadership "command and control." Digital leadership is referred to as 'collaborative leadership' argues that a traditional leader and a digital leader have considerable differences.

Strategy for digital business and transformation

Digital business strategy is the differentiation between businesses with unique capabilities that are created when business models are applied to digital technologies. Digital business strategies concentrate on digitalization and technologies to increase business efficiency and performance, and the end result is usually either a new set of products created or reimagined from existing products or digitalization processes (Sommarberg & Mäkinen, 2019). The digital business strategy sets the organization's direction to drive market technology differentiation and competitive advantage. Innovative businesses are helped by digitalization and the resulting changes in business models to deliver new services or products that were not possible before. Digital business strategy includes the right combination of strategies and supporting technologies to create new user experiences. Digital leaders are required to discover and drive new competitive advantages and differentiation of the products or services offered by driving the change in digital business strategy (Ardito et al., 2021). Gençer & Samur (2016) also notes that the concept of digital transformation is a highly complex situation of leadership and task by business leaders empowered to lead to new digitalization in the future (Muller, 2020).

The digital business strategy's roots that allow and shapes businesses to succeed are technology, information, and innovation. Syam et al. (2018) argue that businesses should speed up their digital transformation to boost their business. They should be able to keep up with changes in technology and try to develop possibilities. Today, to be successful, every company needs to align information technology with business strategy. In reality, business strategies that are defined independently of information technology will inevitably fail. It is the role of digital leaders to work closely with leadership and team managers to develop a comprehensive business strategy that allows large companies' business divisions to strategically use technology to achieve the desired results (Zhang et al., 2021).

Many individuals interchangeably use digital transformation and digital strategy without realizing that they are related but are distinct in scope. Digital business strategy does not focus on the organization's culture but focuses primarily on the organization's technologies, while digital transformation drives changes in the experience of customers, business processes, and growth models. Digital transformation requires coordination and vital planning across the entire organization, and to be successful during and after the transformation process, cultural changes in the organization are involved.

To create capabilities the organization needs to transform into a digital business, a digital business strategy drives business models changes. For every business process, digital business strategy is the key component of such transformation, and the approach ensures that the technologies used to support business goals are used. However, argue that organizations are struggling to implement business strategies. The biggest challenge is altering ways to create an organizational cultural value, but the instruments to measure these strategies do not keep pace.

Digital transformation is applying disruptive technologies from customer experience and engagement to back-office infrastructure, systems, and processes to innovate in every company area. Innovation and new technologies help organizations define better business and operating models, digitize core businesses and processes and drive new incremental revenue streams. For example, many industries have been transformed by new business models based on sharing platforms or crowdsourcing and put high pressure on retail, transport, lodging, and finance that are more traditional and slower in digital transformation.

"Digital transformation is not limited to the implementation of more and better technologies in a rapidly changing digital world, but it includes efforts to align company culture, people, structure and tasks" (Kamalaldin et al., 2020). The majority of businesses understand the importance of digital transformation in order to succeed in their domains. Only 3% of them, however, have completed digital transformation throughout the enterprise. Many businesses still have a lot to do to complete the digital transformation, but 70% of digital leaders say that their businesses are already seeing a rise in customer satisfaction. Customer satisfaction and internal employee perception are strongly correlated, with 64 percent of employees in leading companies feeling more involved and engaged in the company today. Within the next two years, this figure is expected to jump to 80% or more.

Digital strategy for business and leadership

Every employee of the organization transforms and changes digital business strategy. However, it most influences the lives of digital leaders. Veitas and Weinbaum (2017) have identified the digital enterprise strategy as one of seven digital leadership disciplines. In turn, transparency will remain unavoidable, and the amount of information available to digital leaders will continue to increase. Strong digital leaders know what is going on at every company level, and no critical facts are missed. When leaders at any organization level, or if they do not understand the importance of the digital world and its offerings in the relationship with their clients, staff, and partners, the failure cannot be avoided. Increased transparency by digitalization offers leaders many opportunities, but it is a double-edged sword because leaders at all levels should fully realize their power and use it. "Information-led Transparency" has changed how top leaders gain power, and strong digital leaders should embrace greater transparency (Lee & Chan, 2015). Digital leaders should understand and utilize digitization, similar to doctors adapting and transforming healthcare in new technologies such as Magnetic Resonance Imaging. Somerville (2013) also argues that digital leaders need to be critical, adaptive, resilient, and open to new thinking and technologies; such skills are not natural.

Somerville (2013) suggests that different ages require various leadership forms with hierarchical authority patterns, various skills, roles, and responsibilities in organizations. Today, the transition from farming to industrial societies can be similar to the changes in our situation. We have recently moved from an industrial to a post-industrial digital society. Leadership patterns are thus starting in many institutions to reflect the digital era (Malloch, 2014). James Burns et al. also stated that the new company has four key changes that redefine digital leadership: (1) fast, far-reaching digitization of ICT, (2) speeding up globalization, (3) changing the production of knowledge to focus on, and (4) developing distributed structures that are not very hierarchical (Malloch, 2014). Likewise, Zamora (IESE Department of Information Systems Professor) states that digital leaders need to be aware of behavioral, socioeconomic shifts driven by new technology, including mobile, social, private, public clouds, and large-scale data. Strong leaders are expected to know the company strategy's transformation, similar

to a traditional balancing interpreter for management and digitalization (AlHinai, 2020; Büyüközkan et al., 2021).

To better respond to customers and business requirements, digital leaders continuously examine and evaluate how new IT technology can be utilized in an organization. At the strategic level, a leader's behavior and the company's competitiveness should be connected positively and tightly. In this respect, digital leaders play a dramatic role in deciding whether to change or consolidate. Digital leaders are making their decisions. Successful digital leaders recognize the importance of input data, the processing pipeline in the enterprise, and the generated production data across companies in different ecosystems. Digital leaders who successfully use their digitalization to gain more space and retain a strong competitive advantage in the same markets are organizations that dominate specific markets. Such digital organizations appreciate digital management and frequently underline the value of communication, creativity, and courage to explore new technologies and their applications for internal and external projects, operations, and processes. These digital leaders have strong digital leaders who create processes and working processes to enable the fast delivery of products and services on the market while ensuring the continued support and maintenance of legacy systems (Erdmann & Ponzoa, 2021). A recent digital management survey with 1,503 companies has found only 35 (percentage 2.3) digital companies today (Simatupang & Widjaja, 2012). By 2022, 47% of companies will be digitally advanced, while 20% plan to be digital leaders. More than half (53%) of companies plan to replace legacy systems with public cloud platforms. Besides, digitally advanced firms today have 32% of their digital channel revenues, and by 2022, the expected growth will be around 48% (Kamalaldin et al., 2020).

Digitalization concepts are applied within organizations through the rapid changes in businesses and technologies. The use of digital technologies to adapt and improve their operations to an increasingly digital market environment is a significant objective for nearly any contemporary business. However, a few leaders plan to make fundamental changes to achieve these objectives (Petersone & Erzikova, 2016). A study by 1 000 CEOs (from 131 countries and 27 industries of different companies) from Harvard Business Review shows that more than 90% of management believes that the company is divided up and rebuilt with different digital models. More than 70% of managers also believe that organizations do not possess the right skills, management, and operating structures to adapt and promote transformation (Tronvoll et al., 2020). In another MIT Sloan Review survey of 4,300 managers, managers, and analysts, 68 percent believe new leadership is required for competing with other companies. Surprisingly, 77% of participants are from early-stage enterprises, but 55% are from mature or mature firms. Similar Deloitte research shows that 42 percent of emerging large companies demand successful digital leaders' investment (Petersone & Erzikova, 2016). Another MIT research shows that digitally mature companies that are different from their least mature counterparts have the right skill sets to develop digital leaders. Many companies do not have skilled digital leaders, but digitally mature companies have been there to resolve the problem by developing these leaders actively (Petersone & Erzikova, 2016).

Many enterprises lack an understanding of the digital maturity that is described as "the company's process of learning how to respond appropriately to the emergent digital competitive world" (Weerakkody et al., 2016). George Westermann, lead scientist at MIT in Sloan, states that digital transformation is an effective blocker instead of being a strategy problem or a leadership opportunity, as a technological problem (Sunarsi & Erlangga, 2020).

Stories of success and failure: the latest important cases for companies

Many companies that have transformed digital business successfully and have disturbed the industry realized that they often have to offer services and products to more stringent users free and sell subscriptions. The primary currency derives from the use of customer data in advertisements or other services. This digital strategy offers more scale, revenue, and profit than legacy business strategies, but significant risks and unknowns arise. Many start-up companies believe they can disrupt the market by offering a paid free service but eventually fail because of the lack of a strong digital business policy for monetization in the long term. Many large companies slowly drive disruptive services and products due to domestic resistance, but these large companies sometimes fail to react to such great industrial changes (Llopis-Albert et al., 2021). There are various examples of well-known companies trying with successes and failures to change their digital business strategy.

Kodak invented a digital camera but quickly entered the project because of internal resistance because people believed the digital camera would kill the company's legacy. The digital revolution was unable to keep Kodak up. Furthermore, Kodak's lack of strategic creativity led to a misinterpretation of the business and the type of business in which it is used and then to a radical digital era shift (Elia et al., 2020; Sklyar et al., 2019). In contrast, Bell Atlas realized that landlines' future is unclear and that investment is now becoming Verizon in the broadband, wireless, and cable industry. Mobile telephones resulted in fewer fixed-line customers, but the company has adapted to the changes to succeed (Sestino et al., 2020).

Nordstrom's elegant and luxurious customer experience is well known. At the end of the 1990's, the company began to invest in digital technology to strengthen its customers and customers further. The DMI highlighted that providing the ultimate customer experience should serve as an essential decision-maker while building and developing a digital business model and strategy. Nordstrom has developed a "new point-of-sale system." The focus is set to meet its customer requirements, demands, and needs, such as personalized library software, to monitor the track of sales of the individual customer preferences. An innovative laboratory was recently launched to acquire customized clothing services using social media applications, mobile checkouts, and employees' messaging (Carroll & Ramachandran, 2014; Gan et al., 2015; Lee & Chan, 2015; Martín-Rojas et al., 2020).

Burberry, a world leader in fashion, focused on his digital approach to hiring an experienced CEO. The idea of Angela Ahrendts, CEO, has been described by DMI (2019) as "a series of initiatives to keep the job controlled and of course keep it out of touch." Other innovations include e-commerce catalogs that match the company's in-store inventory, smartphone and tab easy-to-navigate mobile technologies, In-store RFID chips that show customers creative and engaging videos and content." Burberry has shown impressive responsiveness in developing new creative strategies for the new digital emerging market. From 2011-15, the company increased its sales growth by 68 percent to £2.523.2 million over £1.501.3 million and strengthened its reputation as a digital fashion innovator. Burberry's revenues increased from approximately GBP 2.52 billion in 2015 to around GBP 2.73 billion in 2018.

The value of electric vehicles caught up in Tesla, a successful startup that disrupts the renowned automotive industry. Other car manufacturers could have bought Tesla about \$4 billion a year ago but lost the opportunity. Competitors have spent over \$20 billion to compete with Tesla and other electric vehicles in sensor technologies, research, and development (Pagani & Pardo, 2017). Many of their major technology successes, including Google,

Facebook, Amazon, Netflix, Uber, Microsoft, Apple, etc. put customer data and use of those data at their core. In the digital world, real success does not provide traditional products and services for competition on the same market, but in creating new markets, offering disruptive products and services. For example, Netflix moves its business to online streaming from shipping DVD rentals. Likewise, Uber created the world's largest car-sharing economy without buying a vehicle and recruiting their drivers. Without buying and maintaining an inventory of products, Amazon, eBay, and Aliba have entirely transformed the retail industry (Cozzolino et al., 2021).

CONCLUSION

According to Darwin's Origin of Species, "it is not the most intellectual of the species that survives; it is not the strongest that survives, but the species that survives is the one that is able best to adapt and adjust to the changing environment in which it finds itself." Businesses need a trial environment to survive and thrive. To further increase the motivation and efficiency of making experiments and ensure that the transformation takes place, it is necessary to create a culture based on the principle of openness that allows ideas to flourish. Digital leaders should possess a critical set of skills to enable a smooth digital transformation. Digital leaders are crucial in defining and driving a competitive digital business model and strategy, and the lack of such models and strategies could lead businesses to failure.

The most significant characteristics that differentiate digital leaders from other non-leaders or traditional leaders are their different skills, attitudes, knowledge, and professional and personal experiences. Leadership should be guided by unique attitudes that are appropriate for the distributed, digital era. In this context, a digital leader must be flexible and adaptable to new ideas and have intellectual curiosity and the hunger for new knowledge. They must be willing to see value in sharply different perspectives and be comfortable with uncertainty, and, like all leaders of all time, have a real passion for what they do. They look for solutions and challenges globally and are hungry for continuous learning. They maintain a more egalitarian and result-oriented approach, unlike previous and traditionalist leaders.

Digital leaders are expected to have the necessary skill set to manage digital transformation, but traditional leaders leading digital transformation in many companies have significant deficiencies in technology dominance and process management. Many organizations realize the importance of digital transformation to succeed in this era, but they underestimate the importance of strong digital leaders, which usually results in painful, incomplete digital transformation that significantly affects business performance.

Although digital leadership has a positive contribution to business processes, there are limited studies on digital leadership in the organizational literature. Therefore, there is a need for more academic studies on digital leadership traits and styles in the future. In this context, new empirical studies should be designed to develop measurable models of digital leadership.

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