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**SCUOLA DI INGEGNERIA INDUSTRIALE
E DELL'INFORMAZIONE**

Leadership in the digital era: Latest trends

RAPPORTO DI LAUREA MAGISTRALE IN MANAGEMENT ENGINEERING-INGEGNERIA GESTIONALE

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Academic Year: 2021-22

Abstract

There really is no doubt that digital technology has irreversibly altered the way organizations conduct their businesses. On a par with the impact of huge inventions in areas such as electric power production and mass communication. Digital technology plays a substantial role in the acceleration of our evolution. Digitalization is changing work environments, activities, and organizations, posing new problems for leaders to solve on a daily basis. Organizations are currently undergoing enormous changes in their organizational structure and leadership strategy. Digital leadership is a crucial aspect in addressing these difficulties, and it has emerged as a prominent concept in the debate over what kind of capabilities managers require for digital transformation. However, the literature available is highly fragmented and does not appear to add up to a single big picture. To address this gap in the literature and contribute to bringing clarity and alignment in the scholarly debate, this study was conducted, with the purpose of highlighting the competencies required, the changes I leadership strategy and the variations in leadership styles throughout the digital era. The findings highlight the growing importance of employee empowerment. To address and overcome the challenges this digital transformation poses, organizational change is required, and leadership-related initiatives can considerably aid in this transformation. In conclusion, this study adds to the body of knowledge on leadership in the digital age.

Keywords: leadership, Digitalization, digital transformation, leadership development, organizational change, shared leadership

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1. Introduction

1.1 General

Companies across all industries are gradually becoming digitalized and reorganized into new types of digital organizations (Fonstad, Beath, Mocker, 2017). Digital transformation is swiftly and radically transforming current businesses, and it is commonly understood that companies who fail to capitalize on the digitalization trend now will be slower, less agile, and less successful than digital pioneers in the future (Zeike, Bradbury, Lindert, & Pfaff, 2019). Workplaces and occupations are changing dramatically, with progressive digitization playing a critical role (Haddud, McAllen, 2018). The internet, high-performance computation, and ubiquitous mobile technologies provide new avenues for capturing and analyzing patterns and behavior (Klus, & Müller, 2021).

Leadership is evolving as a result of the proliferation of new technology and the accumulation of ever-increasing amounts of data (Gierlich, 2021). Over the last two decades, leadership has changed toward being more data-centric and employee-focused (Gierlich, 2021). Previous study has demonstrated that digital transformation has far-reaching consequences for enterprises, societies, and individuals and that work processes are changing in a plethora of ways as a result of the advancements of technology and job redesign (Zeike, Bradbury, Lindert, & Pfaff, 2019). In this regard, digitalisation may alter the nature of work as well as employment needs and resources, in fact, Digital transformation procedures are regarded as a major issue for transforming organizations' leadership and top management (Gierlich, 2021).

Work has altered in ways that were inconceivable even a decade ago as a result of the digital age(Zeike, Bradbury, Lindert, & Pfaff, 2019). researchers as (Westerman, Bonnet, McAfee, 2014) showed that "companies that struggle with becoming truly digital fail to develop

digital capabilities to work differently and the leadership capabilities required to set a vision and execute on it". Leadership experts have spent the last few decades attempting to track the consequences of digitization processes (Klus, & Müller, 2021). Part of the scholarly debate has centered on leaders' abilities to incorporate digital transformation into their organizations while also inspiring staff to embrace change, which is frequently regarded as a challenge to the current status quo (Zeike, Bradbury, Lindert, & Pfaff, 2019).

Many people have transitioned from working within organizations towards working as loosely linked members of a wider community, such as virtual and remote office employees across various industries, as a result of technological improvements. Technological advancements have given rise to the gig economy, in which individuals sell their services to the market directly (Larson, & DeChurch. 2020).

The authors, on the other hand, contend that digitally successful businesses have developed strong leadership competencies to envisage and drive transformation (Zeike, Bradbury, Lindert, & Pfaff, 2019). In this perspective, leadership capabilities are the mechanisms through which managers drive change (Zeike, Bradbury, Lindert, & Pfaff, 2019). described digital leadership as the leader's ability to set a clear and meaningful goal for the digitalization process and the ability to implement strategies to actualize it

1.2   Research Objectives and Methodology

The concept of Leadership is undergoing a huge shift, both in the academic and managerial worlds. Companies who are on the cutting edge of leadership models understand that the heroic approach to leadership is now dated, and they are instead focusing on leadership as a shared approach. In this scenario, digital technologies play a critical role because they can accommodate data acquisition and communication to inform decisions, lessen and abbreviate hierarchical chains, but they necessitate successful effective leadership to be applied, and there are few studies on how to establish and grow such leadership models within organizations, and also the leadership behaviors better suitable to successfully engage people in digital transformation.

To answer these questions, the research carried out was based on a state of the art of the related topic, to understand key definitions and concepts and to highlight different cases in reality of companies in different sectors that have already started to use and validate the practices described in the literature. In particular, the sources for the case study were mainly researched on one key platform: Scopus, for specific papers concerning leadership, digitalization and digital transformation. As well as some publications from ResearchGate

Therefor the goal of this paper is to review, refresh and highlight the literature on the effects of the digital transformation of organizations on leadership considering the current stage of digitalization and the measures adopted by successful organizations to adapt by these rapid changes, and to provide an up-to-date overview on the abovementioned trending phenomenon

To proceed, a meticulous choice was made to select the most important papers from the repositories, Then, to completely understand in detail The importance of leadership in the digital era, numerous papers found on the research site were analyzed and those able to provide

important information on the subject were selected. Therefore, the research was done through the use of different keywords like: "leadership", "Digitalization ", "digital era", "digital leader" "leadership evolution", "digital transformation", "e-leader", "organizational change", "shared leadership";

Once the basis of the various topics was defined and the study on how leadership is perceived in nowadays was completed, it was possible to exploit all the information to proceed with the report, through the understanding of various concepts and applications digital leadership found. Arriving to a link between leadership and digital transformation

1.3   Structure of The Study

The thesis is divided into 4 chapters. The first one provides a general introduction to the topics that will subsequently be discussed. In fact, it explains the importance of leadership practices and its impact on organizations, as well as the objectives of the research and the methodology followed. The second chapter concerns the deep look on what the different key-terms actually mean, their correlation and their contribution to the research. It analyzes the various papers and what the authors had to say about those subjects found through detailed research and then it summarizes them to define a complete picture of the main subject. The Concept of leadership is introduced briefly to completely understand its peculiarities. In addition to this, the occurring phenomenon of digital transformation has been introduced based on the big data base of definitions and quotes found in the various papers. the third chapter discusses results and findings of literature on three different areas' concerning the application of leadership practices. cases were added to reinforce the study with real evidence in order to facilitate the conclusion in the last chapter, the cases highlighted tackle three different leadership

functions/contexts (The role of leaders today, the change in leadership strategy needed in the digital age, and lastly. To discuss the need for collaborative behaviors and technologies, the third context will be about leadership during the pandemic). these three different areas play a huge role in breaking up and facilitating the achievement of the purpose of this research. Finally, in the last chapter, a personal conclusion is provided as that very chapter tries to give a fair comment to the data gathered, this chapter also and defines few research possibilities for future studies.

2. Leadership in the digital era

2.1 leadership

Leadership has a long history in business, and definitions vary widely (Sutherland, Bolden, Edwards, & Schedlitzki, 2019). leadership has been described in terms of individual attributes, leader behavior, patterns of interaction, roles and relationships, follower perceptions, power over followers, impact on task goals, and impact on firm's culture (Gierlich,. 2021)," One similarity amongst the definitions is that one person exerts influence over another; other from that, the meanings might differ greatly (Gierlich,. 2021). Leadership known scholar Warren Bennis defines leadership as : "*doing the right thing* for the success of the organization, while management is about *doing the thing right*.(el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

For many years, scholars have focused on leadership. Leaders have an impact on the organization and society as a whole because of their distinct features. Leaders in organizations can provide a competitive advantage by increasing the performance and efficiency of such organizations (Klus, & Müller, 2021)

Most academics distinguish between "management" and "leadership," with management being more task-oriented and leadership being more visionary (Gierlich, 2021). However, in this digital age, organizations must make some modifications in order to adapt to their surroundings, These changes could arise in areas such as human resources, goals, strategy, and so on. And, on occasion, major and fundamental organizational adjustments are required (Klus, & Müller, 2021) however, These Massive changes are not only used to treat internal problems, but they may also be applied to companies in order to attain superior performance, and utilizing current and future environmental opportunities is becoming more of a requirement every day within this time period In organizations (Klus, & Müller, 2021). Composing a team, creating objectives, defining

KPIs and assessing progress, building a relationship with employees, and controlling organizational and cultural ambidexterity are all aspects of leadership (Gierlich, 2021). the effective role of managers and leaders in such significant transitions is unavoidable and Executives require an acceptable skill set to deal with organizational difficulties, which should comprise technical skills, human skills, and thinking skills , Skills may also differ amongst novice leaders, middle leaders, and expert leaders, with beginner leaders' leadership skills tending to be more self-centered, and with increasing experience, they increasingly converge into an expert leader's capacity to develop other employees (Klus, & Müller, 2021).

It should be noted that leadership and management are not identical. because in order to influence over others, management depends on formal power while leadership is the result of a social influence process (Kotula, Ciesielska, & Mazurek, 2021). Whether the size and scope of a company, leadership is an inherent element of the entire organization (Kotula., Ciesielska., & Mazurek., 2021). Especially now that Leaders are increasingly confronted with the difficulty of appropriately adopting new technical advances into their organizations while also guiding the change process in their own operations (Klus, & Müller, 2021). In previous years, we could see substantial research on leadership because it is regarded as critical to an organization's performance, this is because each leader is different and takes an approach that is compatible with their values (Kotula, Ciesielska, & Mazurek, 2021).

Theorists have made an effort in recent years to shift away from studies of leaders and toward investigating the underlying, relational, socially driven process of leadership, questioning the fundamentals as to how leadership is conceived and are instead seeing it as a socially defined process embedded in context and culture (Sutherland, Bolden, Edwards, & Schedlitzki, 2019). According to this viewpoint, leadership is an emerging, social phenomenon that is co-produced

and executed by a considerably broader spectrum of individuals than was previously thought

conceivable by the large corpus of existent academic work on leadership inside organizations

(Sutherland, Bolden, Edwards, & Schedlitzki, 2019). However, different people have different

ideas about what it means to be a leader. Furthermore, the term of leadership is generally used

interchangeably with the concept of management (Kotula, Ciesielska, & Mazurek., 2021).

2.2   digital technology

New digital technologies, notably those referred to as SMACIT (social, mobile,

analytics, cloud, and Internet of things [IoT]), bring both game-changing potential and existential

dangers to large, established corporations. GE's "industrial internet" and Philips' digital platform

for individualized healthcare information are both investments made by large corporations

looking to capitalize on opportunities presented by digital technologies (Fonstad, Beath, Mocker,

2017). LEGO is building an engagement platform to augment its business systems' capacity to

interact with customers and innovate quickly (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

These large, established corporations are reconsidering how they will compete in the digital

world, and they are investing in new technology and capabilities in order to reinvent themselves

as digital leaders. (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). In recent years, "born

digital" pioneers (such as Amazon, Facebook, and Google) have grown into powerful

behemoths, while companies that had long dominated their industries found their traditional

value propositions under threat (Fonstad, Beath, Mocker, 2017). Most leaders of big old

companies believe their companies can retain leadership positions by taking advantage of both

their existing strengths and the capabilities offered by digital technologies (Fonstad, Beath,

Mocker, 2017)

Another growing creative technology that is influencing workplace dynamics and how employees complete their jobs is known as 'cloud computing,' and it is regarded as an important component of the digital workplace (Haddud, McAllen, 2018).Cloud computing is an innovative way to increase business value and productivity in the workplace, however usage of this technology necessitates Internet access, which has not been a problem previously (Klus., & Müller, 2021). Organizations that employ cloud computing in their business units cite benefits such as enhanced business unit collaboration, customer service, and agility, but It is also crucial to note that other technologies are serving as strategic instruments in giving corporate insights that were previously difficult to access, such as Analytical data (Haddud, McAllen, 2018).

Finally, the application of Internet of Things technology within enterprises is rapidly evolving (Haddud, McAllen, 2018). IoT technology may be used in digital workplaces to determine employee whereabouts, providing employers with insight into which facilities are in use and assisting them in scheduling duties at times that are least disruptive to their employees (Fonstad, Beath, Mocker, 2017). The Internet of People is the name given to the second wave of Internet development (IoP). To do something, it employs a PC, tablet, or smartphone to run an application that connects to a distant server (Omar, Ismail, 2020). The implementation of such technology in the workplace will assist to its digitization and have a direct effect on how the workforce performs its duties (Omar, Ismail , 2020)

2.3   DT: the digital transformation

DT is a complicated and multidimensional phenomenon that tends to encompass all of the firm's domains (Klus , & Müller , 2021). Once DT is endorsed by a company - wide digital strategy, it takes on an interconnected form of addressing the company's opportunities and risks, and may impact the company's development, particularly when it involves major changes in the company's overall market positioning (Klus , & Müller., 2021)

As technology advances at a rapid pace, modern companies are challenged with huge shifts (Schwarzmüller, Brosi, Duman, & Welpe, 2018). In the current era of ubiquitous computing, which began around the year 2013 (Schwarzmüller, Brosi, Duman, & Welpe, 2018). Information and communication technology pervades companies and more intimately connects the digital and physical worlds than ever before, and Revolutionary technologies such as mobile computing and virtual reality erode previously established barriers between online and offline environments, resulting in large-scale networks of people, computers, and objects (Schwarzmüller, Brosi, Duman, & Welpe, 2018). Sensors built in wearable gadgets and machinery continuously generate large amounts of data, which smart softwares and smart robots use to make complicated decisions and take over traditionally human duties, these telepresence technologies allow team members from all over the world to be projected into the same meeting space, and new communication channels allow you to reach out to others right away (Schwarzmüller, Brosi, Duman, & Welpe, 2018).

The term "digital transformation" is generally as adopting a range of technologies that has been used by a lot of businesses, as:, Internet of Things (IoT), digital platforms, social media, Artificial Intelligence (AI), Machine Learning (ML), and Big Data (Westerman, Bonnet, McAfee, 2014). At the macro level, the transition towards these new technologies is paving the

way for some new competitive mechanisms, processes, systems, and relationships to rise (Cortellazzo, Bruni, & Zampieri, 2019). At the micro level, we can say that digitalization has had an impact on corporate routines, dynamics, procedures, and skills. Consequently, Companies are transforming their traditional workplace towards a more digitally present workplace across industries and sizes (Cortellazzo, Bruni, & Zampieri, 2019).

The basic transformation of teamwork in relation to technology has changed dramatically, with significant consequences for leadership (Larson., & DeChurch,. 2020). Teams collaborate utilizing a growing number of sophisticated tools, including relatively simple messaging and video conferencing systems, workplace social media (e.g., Slack, GroupMe), and cooperative editing suites (e.g., Google Drive, Microsoft Teams) (Larson., & DeChurch,. 2020). Though technology has been reshaping the team landscape for some time, these changes are becoming more profound, Individuals have been able to interact in teams over long distances for some time thanks to technological advances. They are now influencing who forms teams and allowing teams to build up in far broader networks of teams (Larson., & DeChurch,. 2020)

Digital technology have profoundly altered people's daily lives and enterprises in recent years and it enabled the worldwide connection of almost 9 billion devices , which altered the value of information and management (Cortellazzo, Bruni, & Zampieri, 2019). and has began to affect the character of businesses, their borders, work relationships and processes. In a variety of ways, the digital transformation is making leadership even more important to team effectiveness (Fonstad, Beath, Mocker, 2017). Furthermore, how we perceive the function of technology in teams has distinct implications for leadership (Larson., & DeChurch,. 2020).

2.4   Intersection between Leadership and DT

Leadership is evolving as a result of the proliferation of new technologies and the accumulation of ever-increasing amounts of data. Over the last two decades, it is observable that leadership has changed toward being more data-centric and employee-focused (Gierlich, 2021).

Many tasks now entail considerable technology use and necessitate the ability to utilize technology quickly (Cortellazzo, Bruni, & Zampieri, 2019). Nonetheless, digitalization is viewed as a worldwide job destroyer as well as a creator, causing a fundamental shift in labor requirements. (Cortellazzo, Bruni, & Zampieri, 2019). Intelligent machines, for example, are assisting us in piloting airplanes, selecting new employees, and crunching figures to make strategic steering decisions, As this teaming perspective grows more prominent in businesses, it will influence how leaders manage team members, both humans and intelligent agents, and it will have substantial ethical implications for leaders (Larson., & DeChurch,. 2020). So, executives need to focus in upskilling their employees, inspire and support people in these times of sharp learning curves and competence demanding problems (Larson., & DeChurch,. 2020). Furthermore, the increasement in the sharing of information and connectivity sharing contribute to the breakdown of hierarchies and boundaries of organizations, which leads to the transformation of activities that are task based into activities that are project based in which personnel is expected to participate directly in the generating and adding new value (Gierlich,. 2021). As a result, leadership became critical in capturing the true benefit of digitization, particularly in retaining and managing personnel by effectively reaching out to, interacting with, and engaging employees (Cortellazzo, Bruni, & Zampieri, 2019).

In order to improve organizational performance and remain competitive, executives must establish and implement digital strategies, as well as successfully incorporate emerging

technologies to drive their enterprises' DT (Weber, Büttgen, Bartsch, 2022). These leadership actions are manifestations of task-oriented leadership behavior, which is defined as activities focused on goal accomplishment (McClanahan, 2020). in order to promote DT. Leaders frequently must cope with employees who experience high levels of technology overload as a result of using various digital technologies, as well as employees who are overwhelmed by disruptive technical and organizational advancements (Cascio, Montealegre, 2016) . When job expectations and duties surpass employees' capacities, they experience role overload (Wang., Liu., & Lee., 2021).

As a result, leaders must recognize, understand, and analyze not just their employees' specific needs and problems, but also their employees' strengths and limitations in order to provide appropriate support, all of which are important parts of people-oriented leadership behavior (Cascio, Montealegre, 2016). For that reason, in the digital era, people-oriented leadership behavior, typified by leaders' concern for their employees (McClanahan, 2020)., is critical for guiding employees through the DT journey. Overall, combining several leadership behaviors may be especially essential in the context of an organization's DT since coping with complicated and contradictory situations necessitates leaders possessing a diverse behavioral repertoire, Furthermore, effective DT management may rely heavily on appropriate leadership conduct that integrates either managerial (i.e., task orientation) or interpersonal (i.e., people orientation) perspectives (McClanahan, 2020).

Leadership experts have spent the last two or three decades attempting to track the consequences of digitization processes. A portion of the scholarly debate has centered on the leaders' abilities to incorporate digital transformation into their organizations while also inspiring

their staff to embrace the occurring change, which is frequently regarded as a challenge to the

current status quo (Cortellazzo, Bruni, & Zampieri, 2019).

3 Literature review

Because the findings in this area are somewhat dispersed and fragmented in rather unorderly way, this chapter addresses some of the challenges discussed so far by providing an illumination on the available literature on leadership and digitalization that has been accumulated across several disciplines, while taking a clustering approach, giving a segmentation of leadership practices into three different aspects to highlight an updated view on the effect of digitalization on leadership

3.1 A. The role of leaders during DT

After discussing what digital technologies are and how digital transformation is radically changing the way we do work, we derive that organizations must be up to date on innovation in order to compete in today's world.

Scholars have argued that an innovative culture and atmosphere can directly contribute to a nation's economy and its progress (Li, Khan, ud din, Chughtai, Le, 2022). However, theres no doubt that digital innovations will continue to grow in the near future, even though the changes that were made by today's technology might be impressive, technology all by itself is not enough, in order to fulfil and exploit its potential, leaders are required to recreate and restructure the way of their work and how the organization operates at a time that's filled with digital ubiquity (Cascio, Montealegre, 2016).

Therefor it is very important to understand what leadership skills and traits are required today, to survive in the digital age, manage digital workplaces, and choose the right leadership style with that particular workplace (Cascio, Montealegre, 2016). One of the perks of the digital workplace is that it offers a great opportunity for leaders to connect with their employees, engage

with them continually on a global perspective (Miller, Marsh, 2014). (el Sawy, Henrik, Kræmmergaard, Vinther, 2016) has defined digital leadership as the capability to do the right action for the purpose of the strategic success of the entreprise and its ecosystem concerning digitalization

3.1.1 Leadership development

Leaders need to understand new models and ways of collaboration, they need to embrace new trends and technologies, and to change their mindsets accordingly in order to thrive in the digital future (Day, Fleenor, Atwater, Sturm, McKee,2014). via way of means, (Day, Fleenor, Atwater, Sturm, McKee,2014) highlights the five essential principles a leader must operate by. Which are

Firstly, leaders should understand who they are leading, because digital organizations are different in terms boundaries, it extends to include contractors as well as freelancers and a plethora of related workers. Second, leaders have to be digitally present in all the digital spaces that are provided by the organization. Thirdly, digital enterprises require less dictatorial and more conversational management, so leaders must lead by persuasion. fourthly because software is replacing a lot of repetitive tasks that were previously done by people, leaders have to adapt stream management. And lastly, although digital workers tend to enjoy technology, they still expect human interactions to remain personal, therefor it is critical that the leader is 'human' (Day, Fleenor, Atwater, Sturm, McKee,2014).

3.1.2 Lego case

Despite LEGO being one of leading companies in the toy industry, during the early 2000s it was on the verge of defaulting its dept, manufacturing was held in the U.S and Europe, but their competitors performed their manufacturing activities in different regions like Asia, at a cost that's much lower than what LEGO was paying, and with the introduction of new digital and electronic games, the toy market had become at danger (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). In order to survive LEGO diversified quickly into other similar markets, such as: video games, toys specially for infants, amusement parks as well as clothing, but it had little experience in those markets and it seemed like the company lost its identity (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

LEGO decided that it should respond quickly to the external digitalization challenge by "involving" its business model in a way that it would digitalization in everything it performs. The CEO had decided it wouldn't have a separate digital business unit (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). They used three lenses in order to leverage digitalization. Firstly a product lens, dealing with product innovation and the corresponding ecosystem; a Marketing lens dealing with digital marketing; and lastly an Enterprise lens which dealt with the integration of the inside and the outside of the organization (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). Since 2009, they have undergone a plethora of marketing and product digitalization moves, leading to the incorporation and association of digitalization and the IT platforms of the enterprise (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

According to (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). The LEGO case states that it is favorably fit for digital leadership, it's evident that the company has a deep commitment to enterprise-wide digitalization, from the CEO and top management to the teams downwards,

there are numerous examples that indicate the company's capability and fitness for digital leadership has been improved and enhanced

Some of LEGO's early efforts for digitalization were difficult and only partially successful, which in turn derived the need for the company to rethink its approach to building digital platforms for the sake of digitalization, and it led to them implementing the twin platform model (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

while executing a successful digitalization plan To assist other entities and organizations There is no broad agreement on the operational components of digital leadership as of yet (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). However, LEGO has developed six tables pointing the building blocks necessary for digital leadership- the first being business strategy, secondly business models, thirdly enterprise platforms, fourthly the skills and mindsets of the people followed by the corporate IT function and finally a humanized workspace (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). For the purpose of this section, two of these blocks (mindsets and worklaces) will be discussed, and the remaining will be highlighted in the next section

Characteristics	Description	Enterprise capability	How to enhance enterprise capability
An experimenting to success mindset	Individuals and groups' proclivity to act innovatively and iterate to success by trying, failing, and trying again.	Capability to govern in a transparent manner and tolerate failure. Ability to take risks on new projects. Capability to operate in beta mode continuously	1-conduct experiments and prototypes 2-train staff to accept mistakes and have processes in place for sharing and learning from them. 3-foster a culture of cooperation and experimentation. 4-Encourage and utilize flat hierarchies, where decision power is distributed,
Digital Collaboration skill sets	People have the ability to transition between activities and occupations across business divisions, rather than strict technical specialists who only wish to work in corporate IT.	The ability to transfer employees between corporate units. The HR department's ability to have job descriptions that change on a regular basis	1-Rotate personnel between business units and occupations 2-Integrate different workers and partners via a shared sense of purpose and meaning. 3-Provide opportunity for people to continually gain new skills and seek new possibilities.
The mindset that makes people comfortable with changing tasks	People with the adaptability to address new problems and opportunities as they occur, as well as an external perspective	Same as above	Be willing to "give up" a good person in your business unit if there is an urgent need for them elsewhere in the organization.

Table 1: (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

The first is building block is developing a distinct people attitude and skill set: All the above will necessitate a distinct mindset at all levels of the organization. As seen in (table: 1),

Upper executives and all personnel will need to be more adaptable and ready to experiment and innovate, even if they fail at times. Everybody in the organization must have suitable skills and abilities and digital know-how (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

Characteristics	Description	Enterprise capability	How to enhance enterprise capability
A Workplace that Provides Simple and Accessible Digital Experiences	Employees are given customized, mobile, and consumer-grade digital experiences in the workplace (including on the enterprise platform). These experiences establish uniformity in the usage of technology and user interfaces in both private and corporate settings.	Corporate IT's ability to collaborate with workers to cocreate (design, test, and build) tailored consumer-grade mobile apps.	1-Provide user-friendly corporate applications/apps for the workplace 2-Develop applications/apps that are customized for employee duties 3- Adopt a "bring your own device" policy
A Workplace that Promotes and Prioritizes Continuous Learning and Knowledge Sharing	The workplace gives digitally aware individuals who seek a greater purpose for their job with ongoing opportunity to develop and learn.	Same as above	1-Create collaborative and knowledge-sharing platforms. 2-Experiment with information sharing and open exchange of information 3-Participate in enterprise-wide digitization activities with your staff.
A Workplace that Benefits from Location and Time Flexibility	The workplace supports employees' varying demands and objectives regarding working hours and location. The preferred mode for the born-digital age is "working when needed" rather than "working when requested."	HR and the enterprise's capacity to sympathize with workers' lives, families, and personal preferences while maintaining efficiency.	1-Allow workers to choose how and when they work 2- invest in digital platform capabilities for remote work 3- provide 24/7 technological support services 4- and make data available to employees wherever they are, using numerous and mobile devices.

Table 2: (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

The second building block is creating A different sort of workplace: as stated above in (table:2), "born digital" younger employees join the workforce with various values, they will have different work expectations in terms of place and work time flexibility, sophistication of mobile web access, as well as the magnitude to which the workplace environment is "humanized." Building such a workplace as digitization accelerates is a top goal (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

3.1.3 New Ways of Thinking about the Digital Workforce

(el Sawy, Henrik, Kræmmergaard, Vinther, 2016) case concludes four three points about how we should think about workforces that must be taken into account

Lesson 1: Employ Digital Generalists Instead of Technical Specialists. "Hire for a Career, not a Job," is an often-heard mantra. LEGO has hired additional technical workers to suit the company's new digitalization requirements, and has discovered that it is better to hire agile, creative, and adaptive employees who can deal with work and position changes and can focus on digitalization wherever in the firm. Any organization looking to develop digital leadership skills and expand its digital workforce should recruit technical people for a career in digitalization rather than a specific job in IT. CIOs must reconsider their corporate IT employment criteria in order to strengthen their organizations' digital leadership capabilities (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

Lesson 2: Design an Appealing Workplace for Digitally Aware Individuals. As seen in (table) LEGO's culture has long encouraged workplace playfulness and the creation of a joyful, creative environment. It has also recognized that the new digital-born generation has distinct work expectations in terms of flexible hours and mobility, information exchange, and consumer-

grade technology skills and accessibility. As a result, LEGO's CIT organization has purposefully decided to establish a more humanized environment with more exciting and meaningful employment. The requirement to provide an appealing workplace will be more crucial as the scope of digitization expands and more born-digital individuals enter the workforce (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

Lesson 3: Improve and Evaluate the Workforce's Digital Agility. As a traditional brick-and-mortar corporation, LEGO employs both long-standing conventional employees and an increasing proportion of born-digital youth. In addition to digitally proficient personnel, the digitalization culture necessitates flexible and resilient individuals who can survive in a rapidly changing environment. With such a diverse workforce, LEGO has recognized not everyone has the same level of digitalization preparedness and has accepted that some people may never achieve that level. Nonetheless, these employees can play important roles in digitalization initiatives. Companies that want to prepare their staff for digitization should assess their digital quotient, look for ways to increase it, and track it over time (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

3.1.4   Leadership styles

According to (Fournier, Moisan, Lagacé,2022), through a longitudinal case study, in order to lead to the formation of more engaged and dedicated individuals capable of achieving high levels of performance. Three main types of leadership styles emerge: laissez-faire, transformational leadership and transactional

(Fournier, Moisan, Lagacé,2022) describes laissez faire leadership as a form of passive leadership, where little or no feedback is provided by the leaders which often can leave

employees in the shade, and that it is sometimes harmful to the engagement of the employees. These types of leaders prefer a hands-of approach when it comes to management, they are not there when problems arise and are most likely not engaged with their employees.

(Fournier, Moisan, Lagacé,2022) describes transactional leaders as leaders that focus on the resources they manage, their employees only involve them on specific issues, as they manage by exception, either in a passive way meaning they intervene when a problem has already occurred, or in an active way by trying to prevent problems, they usually work assuming that their employees already know how they should act in favor of reaching the organizations goals, so they are focused on getting results

(Fournier, Moisan, Lagacé,2022) describes transformational leaders as leaders that can inspire employees and are portrayed and perceived as motivating and charismatic managers that strive to challenge each employee's intellectual stimulation and individual consideration. A leader that can form a vision that accepts the groups goals and reinforce the change capacity of the organization by tweaking the vision after observing the behaviors of everyone

However. that in today's age, in order for organizations to survive, it needs effective collective leadership (Douglas, Merritt, Roberts, & Watkins, 2021), these rapid changing, extreme environments require a collective leadership state, that consists of individual leaders that are skilled in people and organizational management, because despite leadership development was being viewed as an optional nice-to-have process, today it is being viewed as a necessity for organizational sustainability (Douglas, Merritt, Roberts, & Watkins, 2021)

Researchers suggest that performance of organizations depend on the employee's personal resources (Li, Khan, ud din, Chughtai, Le, 2022), which stimulates employee's

innovative behavior more than obtained through technical, financial and mechanical resources(Li, Khan, ud din, Chughtai, Le, 2022).

Some organizations adopted the (HIWPs), high involvement work practices, (Li, Khan, ud din, Chughtai, Le, 2022). define it as a set of practices and organizational policies that are utilized by organizations to enrich the quality and skill of their employees through sharing knowledge, power, information, and rewards

The key success to improve employees' s competencies and motivate them in the workplace is high involvement work practices. They're not only beneficial to employee's individual performances, but also for the organization as a whole, through training and performance evaluation and personnel development, offering opportunities for growth. Along with (HIWPs). (Li, Khan, ud din, Chughtai, Le, 2022) suggested that the five key human resource practices that influence individual performances and in turn help to foster and achieve organizational goals and vision, which are (skill development, communication, performance evaluation, empowerment, reward and recognition) (Li, Khan, ud din, Chughtai, Le, 2022).

Similar to high involvement leaders, high involvement work practice's presence in the organization helps boost the pace of motivation of individuals, wich in turn improves their proactivity, initiation, self-determination, thereby fostering them cognitively to produce innovative attitudes in the workplace. Because innovation generally requires personal initiation and self-starting behaviors, it demands long term focus and the capability to overcome the roadblocks and barriers that take place when attempting to achieve innovative objectives and goals (Li, Khan, ud din, Chughtai, Le, 2022).

3.2   B. Change in Work Design during dT

Since the beginning of the twenty-first century, the work environment dynamics in terms of technology, innovation, and fierce competition essential for organizational success has altered (Li, Khan, ud din, Chughtai, Le, 2022).

Most large, established organizations are still in the early stages of their digital transformations—in most industries, the great majority of established companies' revenues still derive from traditional products and services (Fonstad, Beath, Mocker, 2017). According to McKinsey & Company, while firms are hurrying to become more digital, CEOs have quite different ideas about what "going digital" really entails, These perspectives span from a technological focus to digital client engagement, new and innovative business models, as well as more (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). In fact, organizations tend to emphasize on providing a communicative technology platform above developing a social solution to address and support a particular business value (Li, Liu, Belitski, Ghobadian, & O'Regan, 2016).

(Haddud, McAllen, 2018) believes that transitioning workplaces into digital or virtual workspaces is no more a 'nice-to-have' choice, but rather a'must-have' practice that businesses would find themselves adopting as a result of the market's rapid technological transformation (Li, Khan, ud din, Chughtai, Le, 2022). As a result, firms should use positive leadership to encourage and promote innovative behaviors among their workforce (Li, Khan, ud din, Chughtai, Le, 2022).

As a result, existing research on effective digital transformation is restricted to detecting patterns that indicate better capacities to deploy SMACIT and related technologies, as well as the increasing accessibility of electronic information to improve products, processes, and customer relationships (Fonstad, Beath, Mocker, 2017)

3.2.1 Critical components for digital transformation

(Fonstad, Beath, Mocker, 2017) research uncovered three critical components for a firm's successful digital transformation:

1. A digital strategy that defines a value proposition influenced by SMACIT.

2. A strong operational foundation that enables operational excellence

3. A platform for digital services that enables rapid innovation and adaptation to new market opportunities.

Leaders at large old companies are defining their companies' digital strategies as they identify the opportunity presented by new digital technologies to connect their existing business capabilities with new capabilities enabled by SMACIT technologies (Fonstad, Beath, Mocker, 2017). These aren't just technological strategies. Rather, they are business strategies that take use of the opportunities presented by the digital economy. (Fonstad, Beath, Mocker, 2017) defines digital strategy as a business strategy inspired by the potential of powerful, easily accessible technologies (such as SMACIT), with the goal of delivering distinctive, integrated business capabilities in methods that are responsive to continuously changing market conditions. A digital strategy directs leaders' efforts to develop new value propositions by merging their companies' existing capabilities with those offered by SMACIT and other digital technologies.

From findings derived from a study encompassing 25 companies verging on digital transformation, (Fonstad, Beath, Mocker, 2017) discovered that business executives Leaders that grasp the opportunity given by new digital technology develop one of two sorts of digital strategies: consumer engagement or digitized solutions.

Customer Engagement Strategy

A company pursuing a customer engagement digital strategy seeks to build customer loyalty and trust by providing superior, innovative, personalized, and integrated customer experiences, similar to how Amazon's introduction of targeted customer recommendations as well as user-friendly interactions has created a rather passionate base of loyal customers. A customer engagement strategy often tries to offer a unified, omnichannel experience that allows customers to order, ask, pay, and receive support from any channel at any time. To better comprehend and anticipate fluctuating client wants, such a strategy relies on analytics applied to a growing collection of customer data. Furthermore, this form of digital strategy promotes ongoing connection between a company and its customers, as well as, if applicable, with a larger community (Fonstad, Beath, Mocker, 2017).

Kaiser Permanente is capitalizing on SMACIT technology prospects in at least three ways (Fonstad, Beath, Mocker, 2017):

1. Increasing patient connection with care delivery teams by augmenting visits and phone conversations with channels such as video, email, and text.

2. Engaging in data analytics to discover demands for — and most appropriate responses to — customized outreach, especially when it encourages patient adherence to medical regimens.

3. Using social media to form communities of patients with similar interests and care groups that connect patients and their families with caregivers.

Digitized Solutions Strategy

A digital solutions strategy seeks to reformulate a company's value offer through the integration of products, services, and data. This form of digital strategy is driven by research and development initiatives that strive to anticipate, rather than react to, client wants. Similarly to

how Steve Jobs trusted his impulses (rather than feedback from customers) to steer innovation

process at Apple, a corporation trying to pursue a digitized solutions strategic plan tries to

envision what it can do for customers by integrating various competencies with the capabilities

provided by digital technologies. An impactful digital solutions strategy undoubtedly involves

the collection and using additional information often gathered through sensors. In many

circumstances, digital solutions have the potential to convert a company's revenue from product

sales towards recurrent revenue via ongoing services (Fonstad, Beath, Mocker, 2017)

3.2.2   Lego case pt.2

Throughout LEGO's degitalization moves, All of the knowledge accumulated over the

years from various elements of enterprise-wide digitalization was put into a new

modern engagement platform so that it would serve the digitalization demands of LEGO's

ecosystem of users, suppliers, and staff in a more dynamic and robust manner. Through

digitization, LEGO has expanded its business capabilities and inched closer to the path of digital

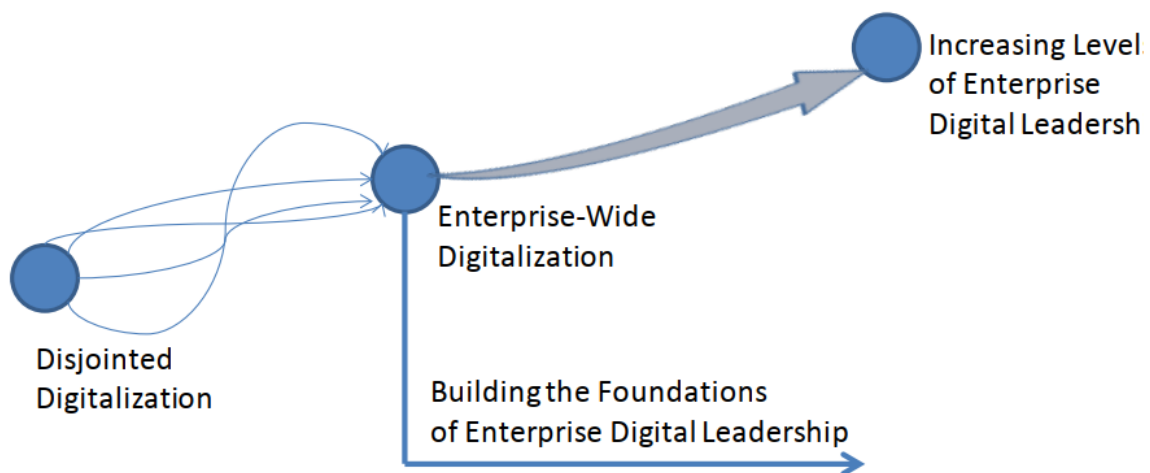leadership (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

Figure 1: (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

Figure:1 displays LEGO's development toward it's enterprise digital leadership and how they perceive it. According to (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). Digitalization is essentially a continuous process and there may be many levels of digitization. Initially, Typically, digitization attempts are sporadic and fragmented. Following that, some businesses will carry out their plans growing enterprise-wide digitization and make a commitment to it. This is a critical point, one where you can advance up the curve. Here, Businesses should become more effective at laying the groundwork and developing the base capabilities required for enterprise digital leadership (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). According to the previously discussed case of (el Sawy, Henrik, Kræmmergaard, Vinther, 2016). in the previous chapter, the remaining building blocks of strategy while executing a successful digitalization plan are

1. A different type of corporate business strategy: Because digital technologies are becoming ingrained in the fundamental fabric of business, the concept of corporate strategy should be expanded to embrace digitalization (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

Characteristics	Description	Enterprise capability	How to enhance enterprise capability
A Digitally Executed Integrated Business Strategy	The approach is implemented through enterprise-wide digitization rather than a business strategy with an additional digital layer, with substantial top management commitment to digitalization.	The top management teams have the organizational expertise to develop and implement company strategies with a digitalization perspective.	1-Request that the CEO communicates the digitization goal to all staff. 2-Ensure that senior management expresses its commitment to utilizing digitization as a major corporate objective. 3-The organizational structure should be based on openness and transparency. 4-Structure the corporate IT function such that it is close to the business units.
A Business Strategy that Leverages Digitalization to Strengthen Core Distinctive Competencies	The approach understands that digital platforms and digital media might entice businesses into too many adjacent industries or areas where they lack particular competencies.	Top management realizes the need of tightly integrating digitalization into strategy rather than loosely coupling it.	1-Recognize and concentrate on the enterprise's core particular competency. 2-Learn how to collaborate with other businesses that have complimentary capabilities in the digital and media sector.
A Business Strategy that Leverages the Partner Ecosystem for Complementary Digitalization skills and Competencies	Instead of perceiving partners as suppliers or doing it alone, the strategy is centered on teamwork.	The enterprise can collaborate effectively with a variety of partners across business boundaries and in a variety of marketplaces.	1-Maintain visibility and transparency across borders 2-integrate partners in corporate teams; engage with dynamic partners that can scale up and down fast in digitalization initiatives; and, where necessary, work with partners with specialists with digital knowledge.

Table 3:(el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

As stated in (table:3), The prevalent perspective of a functional-level IT strategy that is associated with but always subordinate to a company's current selected business strategy must be replaced with an organization digital view that reflects the convergence of digital strategy and business strategy. This point of view is sometimes referred to as "digital business strategy."

Furthermore, company development is frequently done in partnership with partners who use ecosystems platforms to co-create value within products and services (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

2. Different types of business models: An integrated digital business strategy with collaborating ecosystem systems support the development of new digital business models for the creation of company value. These models frequently feature diverse value propositions and revenue-sharing approaches. They frequently combine both physical and digital characteristics of products and services (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

3. Another type of corporate platform integration: Intensive interactive digital communication with the outside world necessitates connection between the outside and the inside of the organization that extends beyond the standard ERP and supply chain management integration model. The impending era of flexible and dynamically responsive digital platforms as well as the accompanying organizational systems, need a new type of platform integration (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

4. A separate type of business IT function: The changes due to digital leadership and a digital business strategy will necessitate a reconsideration of the roles of corporate IT and the CIO (el Sawy, Henrik, Kræmmergaard, Vinther, 2016).

However, via way of means, a study by (Haddud, McAllen, 2018) concluded that the following critical measures should be considered to enable efficient digital workplace adoption and management.

- Assess internally and externally the environments to identify existing levels of technological adaptation within the organization and to illustrate opportunities for

improvement. • Identify business operations and areas that are better suited for further technological applications that would make a contribution to business-wide digitization.

- Examine prospective digital technology solutions that will fit each of the stated company activities and areas.

- decide whether or not you should outsource these technologies and then Identify the best provider from which to obtain the required technology from, install them and implement a transition phase, while tackling any problems that may emerge

- Provide personnel who will be directly involved with working with the proposed digital technologies with the necessary training on how to operate effectively with these new digital technologies. This should also cover the many levels of management who have direct or indirect control over various parts of these technologies.

- Ascertain that the acquired digital technologies function properly and are all aligned to contribute to the broader strategic business objectives.

- Integrate all of the chosen technologies into a single system to establish a single digital workplace that allows all stakeholders inside the business to freely share and maintain the information they require from the newly constructed digital virtual office area.

- Conduct frequent reviews and feedback processes to acquire insights into how these technologies work and to listen to user feedback. And make continual changes based on feedback received on the functionality of digital technologies, operational methods, or who uses them.

3.3   C. leadership during the pandemic

Mainstream arguments suggests that exceptional circumstances necessitate strong leadership practices, based on the assumption that leadership is the result of individual, permanent leaders' actions; thus, the absence of successful leaders' identities, opinions, and behaviors implies a lack of leadership (Kars-Unluoglu, Jarvis, & Gaggiotti, 2022). The coronavirus outbreak is unprecedented in history, It is the first pandemic of this magnitude to occur in modern times, especially when the world is more connected than at any other moment in history (Tourish, D. 2020). Leadership has traditionally been associated with qualities such as decisiveness, assertiveness, strength, and bravery, at times like this   Leaders who do not exhibit these characteristics are perceived as lacking credibility and are viewed as weak willed (Kars-Unluoglu, Jarvis, & Gaggiotti, 2022).

The coronavirus problem is essentially a leadership theory and practice crisis (Grint, 2020). Decision making is especially dangerous when we have insufficient evidence to guide us and confront unanticipated outcomes (Tourish, D. 2020). While, in recent decades, the scholarly and practitioner discussion has expanded to incorporate previously ignored characteristics such as compassion and sympathy, People's expectations of a leader are still shaped by the traditional concept of how a leader should act, especially in times of crisis (Kars-Unluoglu, Jarvis, & Gaggiotti, 2022). Mainstream leadership theories are little help because, in a world of extreme uncertainty, leaders have much less information, experience, and resources to assist them than is commonly assumed (Tourish, D. 2020).

For many of us, the potentially life-altering repercussions of good or bad leadership have certainly never been clearer than now (Wilson, S. 2020). On a daily basis, evidence mounts

showing the actions or errors of some political or business leaders led to the virus's spread, culminating in mass fatalities that could have been averted had these officials heeded scientists advise (Wilson, S. 2020). Unsurprisingly, US President Donald Trump continued to establish new lows for reckless incompetence among world leaders virtually daily (Wilson, S. 2020). Unfortunately, he is not alone in failing to act in the manner that a responsible leader should. Severe blunders have also been observed in the methods of Boris Johnson in the United Kingdom, Shinzo Abe in Japan, and Jair Balsanaro in Brazil, among others (Wilson, S. 2020).

3.3.1   the New Zealand approach

To help inform its decision-making, the New Zealand government has relied on scientific advice, facts, and evidence, as well as a readiness to listen to individuals with relevant expertise. Based on this case study, (Wilson, S. 2020) studied the New Zealand approach to dealing with the pandemic and provided a good practice framework, that's aim establishes an overarching goal for 'pandemic leadership' as a certain type of leadership or combination of leadership techniques.

(Wilson, S. 2020) identifies the essential leadership practices that the New Zealand approach model consists of. Which are:

1.Leading by expertise: The lesson from New Zealand is that in order to lead effectively in a pandemic environment, leaders must first be ready to be led by individuals with relevant expertise. This provides a foundation for trust.

2: Mobilize collective effort: In the scope of 'pandemic leadership,' attempts to unite people in contributing to a common goal are extremely crucial. Leaders' consistent focus on the

crucial role of unity aids in the development of trust, especially after people understand how the virus spreads.

And, last, allow for coping: the epidemic is having an unprecedented impact on our world. As a result, if people are to manage under such disruptive conditions, they must rapidly acquire relevant information and skills.

3.3.2   digital teams

During the epidemic, the demand for digital teams and a new class of collaboration technologies has increased (Kars-Unluoglu, Jarvis, & Gaggiotti, 2022) (Grint, 2020). According to study by (Harvard, 2016) , activating high-performance teams can offer substantial results for organizations of practically all sizes and industries. Unlike in the past, these teams comprise employees from outside the firm, such as contractors, freelancers, suppliers, and consultants, as well as coworkers in various locations who may be telecommuting or operating on flexible hours (Harvard, 2016).

Individual motivation is increased as a result of leadership support in the form of personal initiative, a pleasant work environment, enhances individuals' self-motivation, which in turn stimulates innovative work practices (Li, Khan, ud din, Chughtai, Le, 2022). These teams are also dealing with new company goals such as time to market, mobility, and internationalization (Harvard, 2016). A rising number of managers see how vital collaboration has become for today's organizations, as well as how collaboration technologies may help their teams operate more effectively (Li, Khan, ud din, Chughtai, Le, 2022). They also recognize that today's team members require the capacity to communicate from remote locations as readily and naturally as if they were in the same room (Harvard, 2016).

Facilitating the way to connectivist leadership, recognizing that leadership is a dynamic, collective and connected influence process and that Successful organizations leverage on team-based models rather than traditional hierarchical business models (Corbett., & Spinello,. 2020). Shared leadership has become the basic way for which most modern organizations conduct their businesses, it can help to achieve a higher performance in various manners (Nicolaides, LaPort, Chen, Tomassetti, Weis, Zaccaro, Cortina, 2014).

However, Building a culture of collaboration needs individuals to collaborate fluidly with others inside or outside their company, whether across an entire organization, between external groups, or merely inside an individual department (Harvard, 2016). Employee Personal Initiative is concerned with human behavior at work, which has three main components: proactivity, self-starting, and determination (Li, Khan, ud din, Chughtai, Le, 2022). Furthermore, Its is a collection of practices that enables individuals to attain long-term organizational objectives by focusing on the purpose and action of goal achievement through the use of proactivity and self-starting (Li, Khan, ud din, Chughtai, Le, 2022). Shifting to this new culture entails providing users with new collaboration solutions that are more in touch with how people operate now and simple enough for even the least tech minded employees to use (Harvard, 2016).. Personal initiative is founded on the underlying assumption that individuals are influenced by their surroundings and own interests and are concerned with employees' long term-oriented behaviors that extend beyond their job description. That is the collaborative culture (Harvard, 2016).

4   conclusion and future research

4.1   conclusion

This study aimed to create a better understanding of the connection between digital transformation and leadership in contemporary organizations, describing key aspects that leaders and senior managers must leverage on in order to survive in digital era

Today we live in a modern world where information and communication technology, is constantly transforming how organizations generate and capture value, how and where we work, and how we connect and communicate. And the challenge is constantly changing. According to (Fournier, Moisan, Lagacé,2022). the next emerging wave is "ubiquitous computing" . This notion is not limited to a single technology. Rather, it depicts information and communication systems in which electronic sensors (like rfid tags and wearable devices) Technology (smart devices) as well as other equipment like (tablets, mobile devices) are being integrated with Things, humans, data, and computers, as well as the actual surroundings.

The convergence of these advances has resulted in a new type of world, company executives and leaders must analyze and find out how new technologies will revolutionize their firms, because otherwise they risk being disrupted by others

The findings indicate that leadership developed to accommodate the environment of organizational commitment was no longer restricted to a single executive or leader. To stimulate the creation of a new unified performance management methods and new behaviors within senior managers and staff, transformational leadership is required.   Together transactional and transformational leadership prepared the way for dispersed leadership, which in turn supported collaborative behaviors such as Team shared leadership. And to build that culture and mindset of

collaboration, everyone needs to be on board, to engage and collaborate not only with everyone in the entire organization but even with outside groups.

Findings also show that because Businesses has and will continue to digitize at a quick speed as a consequence of digital transformation. it is critical that this influence be thoroughly comprehended in order to realize its full potential.

However, in order to achieve that, a deep commitment to enterprise-wide digitalization must take place, and that requires redefinition and reestablishment of the organization's digital strategy as they see the possibility afforded by new digital technologies to integrate their current business capabilities alongside new capabilities provided by new technologies, it is important to highlight that These strategies are not only technological strategies. They are, rather, corporate strategies which integrate and make use of the possibilities offered in this digital age

And lastly, learning from the pandemic that struck the entire world and forced us to adapt and thrive on change, we discovered the magnitude of and potentially life-changing consequences of good or terrible leadership. And the importance and need for smart or distance working, as well as collaborative work systems. Studies proved that practicing and activating more engaged and collaborative teams may provide significant benefits for businesses of all sizes and sectors. and that a nice work atmosphere boosts people' self-motivation, which fosters creative work practices.

4.2   Future research

While the report does not contradict previous studies on Digital transformation and the role of leaders in facilitating change toward enterprise-wide digitalization, innovative workplaces and more collaborative relationships. It also adds to the body of knowledge about the ongoing issues that different businesses have in competing in a market that is becoming more familiar with the digital disruption, potential research directions focusing on effectively engaging people in digital transformation might entail explorations of:

- The nature and meaning of 'shared leadership' in the contemporary organizations of different industries

- The successful measures that must take place when implementing leadership development programs and the adequate way to measure the outcomes of such programs

- The role and method in which digital technologies facilitate data acquisition to support decision making

- The measures that leaders must take to be digitally present in the organization

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