

Ecole des Hautes Etudes Commerciales d'Alger
EHEC

**Thesis Submitted in partial Fulfillment of the Requirements for
Master's Degree in Commercial Sciences**

Major: Management and Entrepreneurship

Impact of digital workplace on employee experience

Case study: Cisco Algeria

Submitted by:

Miss. AIT YALA Lydia Nesrine

Supervised by:

Mr. KANDI Mohamed Amine

8th promotion

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Dedication

To my dear parents,

And to my beloved grandmother Ourahman Ghnima.

Acknowledgments

First and foremost, I sincerely appreciate the almighty God, for giving me the strength and determination throughout my research work to complete it successfully.

I would like to express my appreciation and gratitude to my supervisor, Dr.KANDI Mohamed Amine for his support, guidance and valuable advices and encouragements throughout the process of this research.

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I am extremely thankful to BOUBIDI Rania, MIMI Lylia, BEN SASSI Imene and MADANI Rym for their willingness to help, which made this research possible.

My acknowledgement would be incomplete without thanking the biggest source of my strength, my parents, SAADI Nacéra and AIT YALA Mourad, for their endless love, prayers, caring and sacrifices and for all their support to accomplish this research work. Without forgetting my brother, Wassim, who has always been there for me and encouraged me.

Abstract

The integration of digital technologies into many aspects of life and work brings both advantages and challenges for companies, employers and employees. To take advantage of digital transformation, companies must be innovative in developing new working environments and fostering a culture that embraces digital advancements in the workplace. Otherwise, they will lose employees, productivity and clients. Creating a delightful experience for employees has become an increasingly important competitive factor. The entire organization must engage its employees while also taking into account their interaction with the digital work environment and providing them best experience possible. Succeeding in this will assist organizations increase the loyalty of its workforce and attracts the best people, as well as contribute to a better customer experience. The appearance of the Covid-19 pandemic has had a tremendous impact on workers and workplaces worldwide. The relevance of the digital workplace has grown as a result of the significant increase in home-based teleworking during the pandemic.

In this perspective, current research has been undertaken to examine the way the digital workplace impacts the employee experience. For this purpose, first, we will present a literature review, and then we will discuss our case study conducted at Cisco Algeria, which has a digital work environment, allowing us to better understand our research.

Keywords: Employee experience, employee engagement, digital transformation, digital workplace, Covid-19, work from home.

Résumé

L'intégration des technologies digitales dans de nombreux aspects de la vie et du travail apporte des avantages et des défis pour les entreprises, les employeurs et les employés. Pour tirer parti de la transformation digitale, les entreprises doivent faire preuve d'innovation en développant de nouveaux environnements de travail et en favorisant une culture axée sur les progrès digital en milieu de travail. Sinon, elles perdront des employés, de la productivité et des clients. Créer une expérience agréable pour les employés est devenu un facteur concurrentiel de plus en plus important. L'ensemble de l'organisation doit faire participer ses employés tout en tenant compte de leur interaction avec l'environnement de travail digital et en leur offrant la meilleure expérience possible. Le succès de cette initiative aidera les organisations à fidéliser leurs employés et à attirer les meilleures personnes, en plus de contribuer à une meilleure expérience client. L'apparition de la pandémie de COVID-19 a eu d'énormes répercussions sur les travailleurs et les milieux de travail partout dans le monde. La pertinence du milieu de travail numérique a augmenté en raison de l'augmentation importante du télétravail à domicile pendant la pandémie. Dans cette perspective, cette recherche a été entreprise pour examiner la façon dont le milieu de travail digital influe sur l'expérience des employés. À cette fin, nous présenterons d'abord une revue de la littérature, puis nous discuterons de notre étude de cas menée à Cisco Algérie, qui dispose d'un environnement de travail numérique, nous permettant de mieux comprendre notre recherche.

Mots clés: expérience collaborateur, engagement des employés, transformation digitale, milieu de travail digital, Covid-19, travail à domicile.

ملخص

إن إدماج التكنولوجيات الرقمية في العديد من جوانب الحياة والعمل يجلب مزايا وتحديات للشركات وأرباب العمل والعمالين. ومن أجل الاستفادة من التحول الرقمي، يجب على الشركات أن تكون مبتكرة في تقديم بيئات عمل جديدة وتعزيز ثقافة التقدم الرقمي في مكان العمل. وإلا فإنها ستفقد الموظفين والإنتاجية والعملاء. وقد أصبح خلق تجربة مبهجة للموظفين عاملاً تنافسياً متزايد الأهمية. ويجب على المنظمة برمتها أن تشارك موظفيها مع مراعاة تفاعلهم مع بيئة العمل الرقمية وتقديم لهم أفضل الخبرات الممكنة. والنجاح في ذلك سيساعد المنظمات على زيادة ولاء قوتها العاملة وجذب أفضل الناس، فضلاً عن الإسهام في تحسين تجربة الزبائن.

كان لظهور وباء Covid-19 أثر هائل على العمال وأماكن العمل في جميع أنحاء العالم. وقد ازدادت أهمية مكان العمل الرقمي نتيجة للزيادة الكبيرة في العمل المنزلي عن بعد خلال الوباء.

ومن هذا المنظور، أجرينا بحثاً لدراسة الطريقة التي يؤثر بها مكان العمل الرقمي على تجربة الموظفين. ولهذا الغرض، أولاً، سنقدم بحثاً نظرياً، ثم سنناقش دراسة حالة التي أجريناها في سيسكو الجزائر، والتي لديها بيئة عمل رقمية، مما يمكننا من فهم بحثنا بشكل أفضل.

الكلمات المفتاحية: تجربة الموظفين، مشاركة الموظفين، التحول الرقمي، مكان العمل الرقمي، Covid-19، العمل من المنزل.

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List of Abbreviations

- EX:** Employee experience
- CX:** Customer experience
- ROI:** Return on investment
- DWS:** Digital workspace
- DEX:** Digital employee experience
- WFH:** Work from home
- ERP:** Enterprise resource planning
- CRM:** Customer relationship management
- BYOD:** Bring Your Own Device
- AI:** Artificial intelligence
- ICT:** Information and Communication Technology
- ILO:** International Labor Organization
- IOE:** International Organization of Employers
- MEA:** Middle East and Africa
- DT:** Data center
- SDWAN:** Software Defined Wan Area Network

Summary

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General Introduction

General Introduction

During recent years, technological innovation has accelerated digitization, globalization and mobility. The global marketplace is becoming more competitive, requiring organizations to drive a change in paradigms towards more interconnectedness, knowledge sharing and agility in order to succeed in a rapidly changing, increasingly complex and uncertain environment.

The technology revolution impacts the way companies create value and how employees work, spanning all economies, industries, and parts of society. The impact of new workplace technology on employees' jobs and working lives must be taken into account, as technology plays a major role in modern work.

The digital workplace enables companies to realize visible outcomes and drive business agility, with more opportunities for efficiency, flexibility, and collaboration.

Understanding how technology impacts the workplace and the workforce should be a top priority for employers. Human resources have a critical role to play in understanding the human implications of working with different technologies. They should be included in tech initiatives to ensure that technology adoption supports and improves employee work quality.

The digital workplace often focuses on technology and how it can be used to further increase productivity and save costs. However, it is important to consider the workforce experience and not ignore it, because employees with good experience are better team players, have a higher level of personal satisfaction and are more connected to the company's objectives. A positive customer experience is the result of a positive employee experience.

Moreover, even in the most uncertain business conditions in times of crisis, such as Covid-19, the digital workplace empowers companies to address new challenges.

The present thesis aims to investigate the impact of the digital workplace on employee experience, and to understand how technology is being used by employees during the COVID-19 pandemic, as well as exploring how this changes their experience. We took the example of Cisco from the list of many other companies, since it is an IT company which already has a digital work environment that fits perfectly with our research.

We chose this research topic because it is one of the trending topics in 2021, especially with the emergence of the Covid-19 pandemic. On the other hand, due to the fact that the concept is fairly new and is still quite limited, we wanted to conduct research about it in order to highlight its importance to business growth and development.

In this context, the primary research question constitutes the following: **“How does digital workplace transform the employee experience?”**

Sub-questions arose from this main research question:

- How do companies attract and retain top talent?

General Introduction

- What can digital workplace improve?
- Does telework technology represent an advantage for companies that have a digital workplace in order to maintain/increase performance in unpredictable crises such as Covid-19?

In order to provide answers to these questions, we propose the following hypotheses:

- **H1:** Companies attract and retain top talent by implementing a digital workplace.
- **H2:** Digital workplace improves collaboration, communication, and connection.
- **H3:** Telework technology represents an advantage for companies that have a digital workplace in order to maintain/increase performance in unpredictable crisis such as covid-19.

To answer our main question and approve or refute our hypotheses, we have adopted both descriptive and analytical methodology, through a quantitative study using a questionnaire for a better data collection.

In order to make our study more understandable, we have developed a work plan that includes three chapters:

Chapter One: The purpose of this chapter is to explore and understand the employee experience, and to shed light on the importance of the digital workplace in today's changing environment. This chapter, therefore, will be divided into three sections. In the first one, we will discuss the evolution of employee experience. In the second, we will explain why workforce experience matters, and in the third, we will give a detailed understanding of what the digital workplace is about.

Chapter Two: This chapter aims to investigate the impact of the digital environment on how employees perform their tasks and to shed light on the importance of having a digital workplace during a crisis such as Covid-19. This chapter, therefore, will be divided into three sections. In the first, we will explain the role of culture in driving digital adoption and involvement in the company. In the second, we will determine the framework of the digital workplace and how it boosts the employee experience. In the third, we are going to determine the impact of Covid-19 on the workplace as well as the importance of its tools such as teleworking in sustaining productivity and business continuity in such a crisis.

Chapter Three: This chapter is divided into three sections. In the first, we will introduce the host company. In the second, we will present the research methodology and the survey process adopted. In the third, we will present the results obtained and the analysis of the data from the survey conducted to answer our questions and confirm or refute our hypotheses.



Chapter One

Exploring the importance of employee experience
and building a digital workplace

Introduction

In a world where money is no longer the main motivator for employees, focusing on employee experience is the most promising competitive advantage that organizations can create. The employee is not just an agent who executes a list of tasks, but rather an internal client for whom value must be created. Employees nowadays want a work environment that promotes a growing mindset while also providing meaningful work and personal fulfillment. The speed of technological change in today's digital world is changing the work environment at a dizzying rate as well as employee expectations. Companies need to foster workplace environments that allow employees to take advantage of new technology and be more productive. The current war for talent is a strong reason for implementing a digital workplace in order to fulfill employees' needs.

Section 01: The rise of employee experience

In this section, we will discover how the concept of the employee experience has evolved over time as well as determine its relationship to customer experience, and lastly, we are going to define the employee experience concept.

1. Evolution of employee experience:

We live in a business world that is constantly changing and evolving, especially with agile transformations in technology and knowledge-based industries. Companies should maintain current human capital while also recruiting new talent in order to achieve a competitive advantage and increase profitability. Organizations with a powerful employer brand and employee experience have an advantage in recruiting skilled human capital and growing employee motivation, loyalty, and engagement.¹

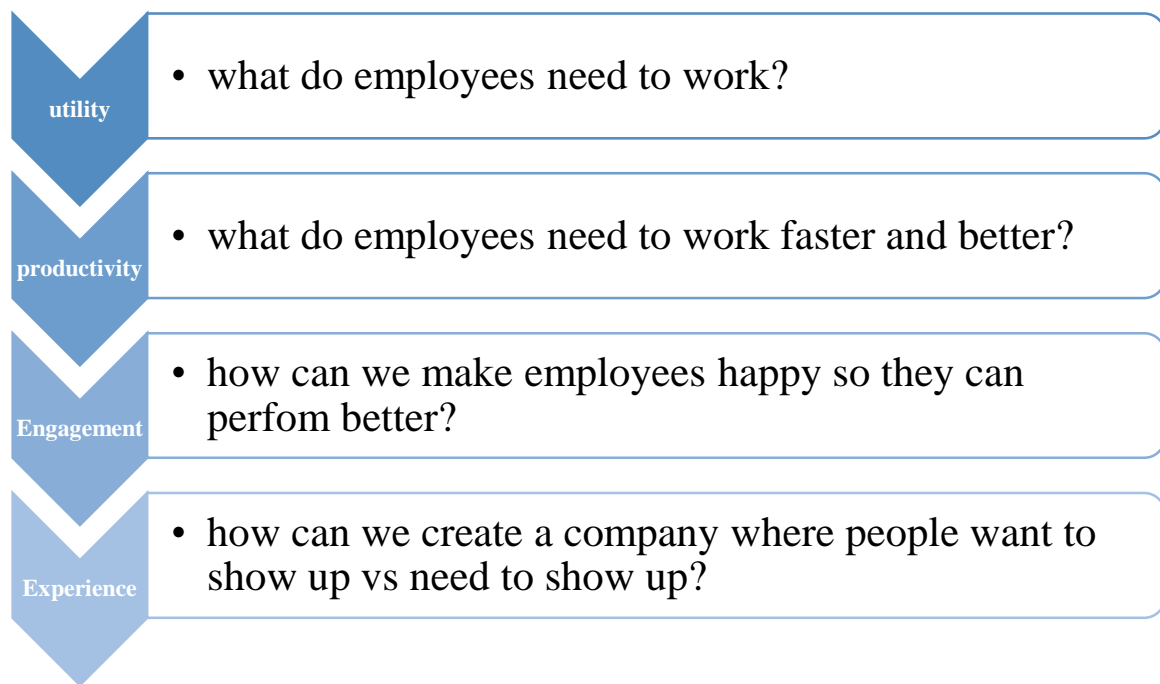
People born between around mid-1980s to 2000 are known as millennials. They are a digital generation who are skilled in technology, and they represented 50% of the workforce in 2020.² The increase of millennial employees is one of the contributors to the rise of employee experience, they seek more experience in the workplace. To attract, retain, and engage them, it is essential to shift to experience-centric organizations.³

According to Morgan, there are four different eras that have shaped the relationship between employees and employers, eventually leading to the emergence of the employee experience as shown in Figure N°01.

¹ NACI EFE, (M): *connect with your management on-the-go*, Peter Lang, Berlin, 2021, p.31.

² KPMG, *meet the millennials*, 2017.

³ <https://www.inc.com/ryan-jenkins/the-growing-relevance-and-importance-of-employee-e.html> (published on September 05th, 2017 consulted on April 08th, 2021 at 08:04 p.m.).

Figure N°01: Evolution of employee experience.

Source: Elaborated by ourselves

Years ago, the utility was the main concern. At the time, the employee-employer relationship was in its most basic form. It was limited to the essential tools and resources provided for the employees to get their job done¹. The focus then shifted to productivity. People like Frederick Winslow Taylor and Henry Fayol launched methods and approaches to optimize the way employees work. Back then, employers were typically focused on getting the best out of their employees while emphasizing on repeatable processes, with no thought given to making the workplace an environment where employees wanted to be. The engagement era followed the productivity era. In this era, employers began to understand that in order to increase the performance of their employees, they needed to pay more attention to finding out what their employees cared about, how they felt and what they valued to make them more engaged. Organizations realize that employees are the most important lever for business success, because engaged employees are more productive, remain longer at the organization, and are generally happier. The engagement era was crucial in terms of the emergence of the era of employee experience, which is the last stage in this evolution. It is about creating an environment where people want to show up rather than feel obligated to show up. Focusing on employee experience leads to high performance and productivity. Enterprises can only

¹ MORGAN, (J): *the employee experience advantage: how to win the war for talent by Giving employees the workspaces they want, the tools they need, and a culture they can celebrate*, John Wiley & Sons, New Jersey, 2017, p.3.

become experiential if they understand the needs and wants of their workforce. Some people think employee engagement should be replaced by employee experience, but they actually work together, engagement as short-term benefits and experience as the long-term cultural changes and redesign of the organization¹.

Moving from a corporate-centric approach based on utility and productivity to an employee-centric based on engagement and experience, allows the organization to establish more meaningful and sustainable relationships with employees.

2. From the consumer experience to the employee experience:

According to Loureiro and Lepetit-Brière, in order to understand the origin of the employee experience concept, we must therefore focus on the employee's experience as a customer because the employee is also a client, so he has a customer experience in terms of products or services on channels that may be online or offline.

2.1.From the consumption to consumer experience:

Before the 1980s, the customer was thought to be a reasonable decision-maker who purchased things to meet a need or solve an issue. Morris Holbrook, a marketing professor at Columbia Business School in New York, introduced the experiential dimension of consumption in 1982 with a scientific article entitled: *«the experiential aspects of consumption: consumer fantasmies, feelings, and fun»*. The search for experience, expressed by pleasure and emotion, is now more important than the product's utilitarian benefits in the act of consumption. As a result, the consumer experience was born as the offer evolved from product to experience.

Customer experience refers to all the emotions and feelings a customer experiences before, during and after buying a product or service, through their interactions with the brand. These interactions take place at points of contact which may be physical (point of sale, events...) or digital (websites, social networks...).

From the website on the mobile to the physical point of sale, via the call-center or social media interaction, consistency of perceptions and fluidity of the route are critical to providing the best overall experience for the customer. The route's homogeneity is insufficient because what will make the experience unforgettable for the consumer is the value it will offer him by satisfying needs that he may not have formed and may not even be aware of.

Customer experience has emerged as the most important factor in brand differentiation. According to a study published in June 2017 by Capgemini's digital transformation institute, 81% of customers say they are ready to pay more for a better experience. In order to have the

¹ MORGAN, (J) : Op.cit, pp.5-6.

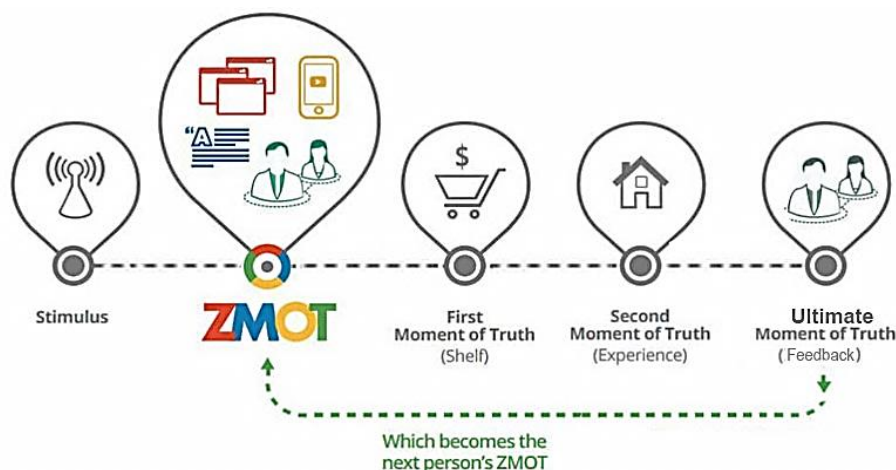
best possible customer experience, businesses begin to focus their efforts on internal functions. Internal alignment's importance began to emerge.

2.2.Moments of truth of customer experience:

The term "points of contact" refers to a physical or virtual point of interaction between a customer and a brand where the customer's emotions and feelings are created. These experiences begin even before the act of purchase, i.e., before we even engage with a brand by purchasing one of its items, we already have an opinion about it. The majority of consumers now check customer feedback before making a purchase: 88% of people consult consumer reviews even before making an online purchase, and 73% of us do so before a physical store purchase. Before the act of buying is completed, the consumer experience has already started.

A customer's journey is composed of several different points of contact, and we describe what the customer experiences and feels at each point of contact. The most crucial of these points are known as "moments of truth." These are key moments in the consumer's journey because they have a major impact on brand perception. Although it is critical that companies strive to enhance their overall consumer interactions, identifying their moments of truth and working to improve these aspects, in particular, will have a strong impact on consumer's journey.¹

Figure N°02: moments of truth of customer experience



Source: <https://www.searchscientist.co.uk/guide-to-the-typical-online-customer-journey/>
(published on May 05th, 2017 consulted on April 14th, 2021 at 11:09 a.m.)

After the stimulus, which is the product's first discovery, comes ZMOT (zero moment of truth), which corresponds to searching for product information. Once consumers have made their choice, they buy the product FMOT (first moment of truth), followed by the SMOT

¹ LOUREIRO, (S) and LEPETIT-BRIERE (M) : *boostez l'expérience collaborateur: la méthode pour attirer, engager, fidéliser en proposant une expérience mémorable*, Eyrolles Editions, Paris, 2018, pp.17-20.

(second moment of truth) when consumers use the product. In turn, they will leave opinions, comments that will allow other consumers to make choices UMOT (ultimate moment of truth). This lived experience then becomes the ZMOT for future consumers.¹

2.3. The link between customer experience and employee experience:

Without customers, businesses wouldn't exist. Organizations want their customers to have great experiences. A happy customer is a loyal customer. To transform a satisfied customer into a loyal customer, the company must give strategic priority to the consumer's needs in each interaction. Providing a memorable customer experience has become a competitive advantage for companies to differentiate and retain their customers.

Consider the chatbot as an example of a virtual touch point, this interface allows customers to get 24/7 answers or information when conversing with pre-programmed software. But who is in charge of the chatbot's programming? Who determines the answers to be given based on the most likely cases of questions posed by the customer? Who decides what steps to take and what contents to give to customers through the chatbot? Behind the chatbot, there is internal richness, which is made up of employees' skills and expertise.² Employees are key actors in helping to communicate what the customer is really experiencing. Customer experience transformation necessitates an engaging employee experience. Therefore, better employee experience and engagement lead to better customer experience.³

Figure N°03: EX and CX equation



Source: Elaborated by ourselves

Customer experience (CX) and employee experience (EX) are inextricably linked, and companies can't improve one without improving the other. Brands that want to boost their CX and increase their ROI should start by focusing on providing the best employee experience possible. According to research, workers at companies with excellent CX are 1.5 times more engaged than those at companies with poor CX. However, companies with highly engaged

¹ MARRONE, (R) and GALLIC (C): *le grand livre du marketing digital*, DUNOD, 1st Edition, Malakoff, 2018, p.83.

² LOUREIRO, (S) and LEPETIT-BRIERE (M): *Op.cit*, pp.21-22.

³ Mckinsey & Company, *customer experience: creating value through transforming customer journeys*, 2016.

employees outperform their rivals by 147%.¹ As entrepreneur Richard Branson stated: « *If you look after your staff, they'll look after your customers. It's that simple*». ²

3. **The Concept of employee Experience:**

Employee experience is a modern concept in the business world. In 2015, when Airbnb became one of the first companies to hire a global head of employee experience, the concept began to catch on in the business world. Since then, an increasing number of companies have developed roles that concentrate on employee satisfaction and experience.³ In recent years, the literature in the area of HR management has highlighted the lifecycle of employee, employee value proposition and employee engagement. It can be suggested that the employee experience brings the interaction of all these concepts to a holistic perspective. When the literature is analyzed, it is shown that employee experience methods and approaches are considered as a game- changer, a modern and effective approach that breaks the routine and causes a new paradigm change in the sphere of HR. According to the CIPD (2020) report, employee experience is often used to define how organizations develop a supportive work environment that allows employees to achieve their full potential while also encouraging both productivity and innovation. It also entails recognizing the importance of confidence in the working relationship between employees and employers, as well as fostering a happier, healthier workforce. It's crucial for companies to consider and handle their workers' needs in this competitive environment. In order to enhance employee experience, company managements aspire to comprehend the employee value proposition process. The employee experience process entails assessing employees' interactions with the organization, beginning with before the hiring process and continuing after the placement and leaving the job.

Changes in the internal and external environments of human resource management increase interest in implementing the employee experience approach. In this context:

- The qualified talent market's competitive structure
- An involved customer experience

¹<https://www.forbes.com/sites/forbescommunicationscouncil/2019/09/04/the-direct-connection-between-employee-experience-and-customer-experience-and-how-to-improve-both/?sh=3cc8c107f608> (published on September 04th, 2019 consulted on May 09th, 2021 at 03:27 a.m.)

² BAINES, (J) and HOWARD (C): *UX lifecycle: the business guide to implementing great software user experiences*, Packt, Birmingham, 2019, p.25.

³ MAYLETT, (T) and WRIDE (M): *The Employee Experience: How to Attract Talent, Retain Top Performers, and Drive Results*, John Wiley & Sons, New Jersey, 2017, p.xi.

- More workers have access to cost-effective tools (virtual assistants, chatbots) as a result of technological advancements with the shift to cloud technologies in human resources applications, offering an employee experience that is on par with today's customer experience.
- Employers' requirements for methods of involvement that are more relevant to the realities of today's work environment, as well as dissatisfaction with traditional work engagement approaches.¹

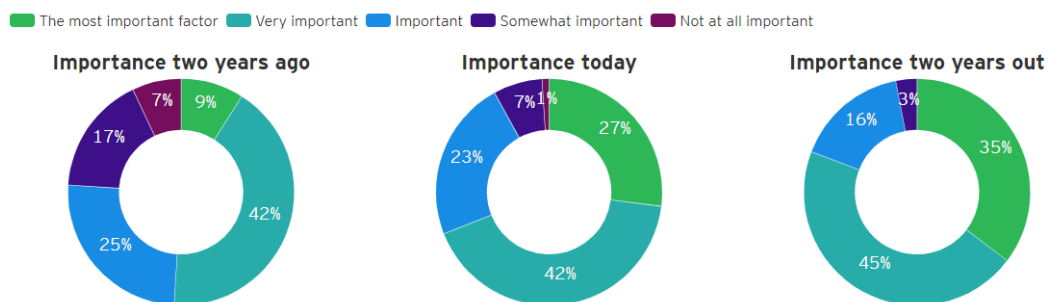
According to Plaskoff, the employee journey has many milestones and touch points, and the quality of EX has a significant impact on employee satisfaction, engagement, commitment, and, ultimately, efficiency. As a result, there must be a change in the basic relationship between the employee and the company. The company must better consider each employee's needs, wants, and emotions, rather than the traditional "transactional" HR approach.²

3.1. Employee experience is becoming important:

HR and business leaders are becoming increasingly aware of the importance of EX. A study titled: *Is the employee experience you're delivering the one your people want?* Commissioned by EY, SAP SuccessFactors and Qualtrics and undertaken by Forrester, it evaluates the changing EX environment. According to the results, only 9% of global HR decision-makers rated EX as the most significant element in their organization's HR strategy two years ago. In two years, however, 35% believe it will be the most significant factor.

As further evidence of the rise of EX, EY research shows that the budget is being reallocated to support EX. EX initiatives accounted for 6% of HR budgets two years ago, but that percentage is expected to rise to 16% in the next two years.

Figure N°04: The importance of EX



Source: A commissioned study conducted by Forrester Consulting on behalf of SAP Success Factors, Qualtrics and EY, July 2020.

¹ NACIF EFE, (M): Op.cit, pp.32-34

² PLASKOFF, (J): « *employee experience: the new human resource management approach* », Strategic HR Review, Vol.16, No.3, 2017, pp. 136–141.

Yet EX isn't merely an HR problem. According to the Forrester study, there is a clear link between EX and long-term business value. Teams become more flexible and efficient as a result of positive experiences. They put in more effort to solve obstacles and have better customer service. It ensures that the most skilled employees are more likely to remain with the company longer and to recommend others to join them.¹

¹ https://www.ey.com/en_gl/workforce/is-the-employee-experience-you-are-delivering-the-one-your-people-want (published on December 03rd, 2020 consulted on May 11th, 2021 at 12:26 p.m.).

Section 02: workforce experience means business

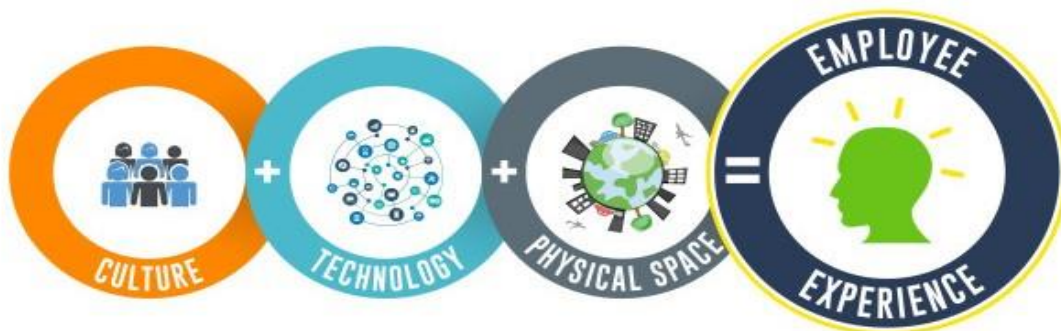
In this section, we will explore the three environments of employee experience, and we will focus on the importance of moments that matter, which have the most impact on the employee experience. Furthermore, we will explain the relationship between employee experience and the competition for talent, along with its alignment with organizational values and engagement. Finally, we will discover the factors that drive the employee experience, its issues, and give a summary of its old rules and new rules in a world shaped by evolving technologies.

1. Employee experience framework:

The most well-known and widely used framework for employee experience was created by the author and futurist, Jacob Morgan. His framework is based on detailed study consisting of interviews with C-level executives and management professors of more than 150 organizations, an analysis of more than 250 organizations, and a review of over 150 journal articles covering the topics culture, physical environment and technology.¹

According to Morgan, businesses should have a great reason for being in order to create a great employee experience, that by going beyond the basic sense of a mission statement (such as offering better customer experiences, becoming a market leader, or providing value for shareholders), organizations will build a deeper bond with people who are actually impacted.²

Figure N°05: the employee experience equation



Source: MORGAN, (J): *the employee experience advantage*, John Wiley & Sons, New Jersey, 2017, p.132.

Employee experience is made up of three environments, which are physical, technological and cultural. The physical environment refers to the physical space where the employee works. Employees will feel more innovative, motivated, and committed to their employer if they work in an environment that energizes and inspires them. Companies should concentrate

¹ MORGAN, (J): Op.cit, p.14.

² Ibid., p.51.

on the "COOL" variables if they want to have a great physical environment for their employees.¹

Technology is employed to facilitate communication, collaboration in order to get the work done. Anything from the applications and software used at work is included in the technological environment, "ACE" technology is needed for businesses to improve the overall employee experience.² Culture is what matters the most to the vast majority of employees and business leaders. It's the only environment that can be felt as well as the only environment that exists, regardless of whether the company wishes to build it or not. This is where the importance of creating a "CELEBRATED" culture comes in.³ Furthermore, the cultural environment impacts the employee experience by 40% while the physical and technological environments each exert an impact of 30%.⁴ The "ACE" technology, "COOL" spaces, and "CELEBRATED" culture variables are listed in Table N°01.

Table N°01: Employee experience environments and variables

Physical environment "COOL" spaces	Technological environment "ACE" technology	Cultural environment "CELEBRATED" culture
<ul style="list-style-type: none"> - Chooses to bring in friends and visitors - Offers flexibility - Organization's values are reflected - Leverages multiple workspace options 	<ul style="list-style-type: none"> - Availability to everyone - Consumer grade technology - Employee needs versus business requirements 	<ul style="list-style-type: none"> - Company is viewed positively - Everyone feels valued - Legitimate sense of purpose - Employees feel like they are part of a team - Believes in Diversity and Inclusion - Referrals come from employees - Ability to learn new things and given resources to do so and advance - Treats employees fairly - Executives and Managers are coaches and mentors - Dedicated to employee health and wellness

Source: Own illustration

¹ MORGAN, (J): Op.cit, pp.59-60

² MORGAN, (J): Op.cit, pp.77-78.

³ MORGAN, (J): Op.cit, pp.89-90.

⁴ MORGAN, (J): Op.cit, pp.14-15

2. The moments that matter of employee experience:

Organizations strive to capitalize on consumers' "Moments of Truth" in order to provide excellent CX. In the world of EX, it's all about "Moments that Matter". Most organizations handle Moments That Matter using a decades-old, top-down paradigm. This paradigm is focused on treating all employees the same and having HR act as the primary conduit to a standardized set of work-related experiences comprising hiring, onboarding, training, promotion, and retirement. Moments that matter don't just happen at specific career milestones, as work and the workforce have become more complex. Employees are constantly confronted with critical moments in the physical, human, and digital spheres.

Moments that matter exist outside of the organization's four walls. The birth of a child or the hospitalization of an aged parent can have a significant impact on an employee's job performance and productivity. External influences must be taken into account while designing employee experiences. Providing onsite daycare or extending work-from-home possibilities, for example, might help employees balance their personal and professional lives.

Make no assumptions about the kind of experience desired by your target workforce. Understand the professional and personal moments that will matter the most to each group using analytics, internal and external survey data, and social listening. With this knowledge, you can start creating hyper-personalized experiences and provide physical, human, and digital options for employees to accomplish new productivity goals.¹

On the other hand, according to Samana, there are no less than five moments of truth before the end of the trial period, any point of contact between the new employee and the organization is important.

The zero moment of the employee experience: This is the first point of contact with the company. It could be a job offer, in which case the person interested will look up information about the company either on Google, in forums, or by exchanging with current or former employees.

The job interview: At this stage, the candidate will ensure consistency between the promise made by the company and what he will experience at the interview. First, the candidate must be clear about the recruitment process. In other words, whether the interview will be simple or if he must pass 15 interviews, if the company's culture suits him or not, etc. If the candidate was not retained, he would continue to say good things about the organization if everything had been done properly.

¹ Accenture Strategy, *Employee experience reimagined*, 2017.

Onboarding: When the employee arrives at the company, he will live the experience with a stronger sensitivity than every day that will follow. He is on the lookout for anything that will be pleasant or unpleasant for him. If it happens that a new employee does not find a PC or office on his first day or that nobody is aware of his arrival, the employee, in this case, will feel humiliated. Paying attention to a new employee through a mini welcome event or a welcome gift isn't expensive for the company.

Discovery phase: it comes after the "onboarding". It is the first five days of the employee that will allow him to confirm whether he will commit himself fully or run away. A mini assessment is useful before his first weekend departure to check his experience, answer any doubts he may have and help him if necessary.

The trial: it lasts for three to six months in most cases. Similarly to how the employer scrutinizes the employee in his new task, the employee constantly evaluates the consistency of his experience and its adequacy with the employer's promise.¹

Developing this set is not too difficult, knowing that each company faces almost the same challenges. There are similar Moments of Truth from one organization to another. In fact, what will make the difference are the principles of action that the company will put in place for each of these moments and that will make them unique. It's about making your ambition operational and relevant to your company's brand, culture and mission. If you sell luxury cars, your experience may be different than if you sell low-cost cars.²

3. Employee Experience and the Competition for Talent:

Employees in today's workplace are consumers. Employees are no longer content with clocking in and out and being paid. They seek meaning in their job, as well as a positive, collaborative environment and an employer who can fit their desired lifestyle.

Because of the tightening labor market and increased competition for high-talent performers, employees can afford to be choosy. Currently, 63% of workers believe it is "extremely likely" or "somewhat likely" that they will be able to find a job that is as good as their current one. Furthermore, 51% of currently working employees claim they are actively searching for a new job.

As a result, it's no surprise that employers are starting to treat workers more like consumers. Many companies are finding that they need to pay more attention to the moments that matter when workers decide whether or not to join or stay with a company.

¹ SAMAMA, (C): *l'expérience collaborateur: faites de vos employés les premiers fans de votre entreprise !*, Diatino Edition, 1st Edition, Paris, 2017, pp.125-128.

² Ibid., p.129.

The impact of social media is also significant. Even inside an employer's internal communication tools, such as an online communication and collaboration hub for workplaces, workplace moments can rapidly go viral. Such tools provide a fantastic opportunity to promote an organization's brand in an authentic manner. They can also be a source of stress for leaders who have to contend with incomplete perceptions of their workplace or negative online feedback.

When it comes to reputation, culture, and talent, the challenges for employers are unquestionably higher than ever. Employers are starting to ask more questions about what constitutes a positive employee experience.¹

4. Alignment between Organizational Values, Engaged Employee and Employee Experience:

There is a common belief that a person who is engaged in one environment may also be engaged in another similar one. The common factor is not the organization's work environment similarity, but rather the factors that determine the person. What matters is who a person is and how they feel about the way they are handled at work, not where they work or what they do.

When a person joins a company with which the values and purpose are compatible, engagement comes soon. Therefore, organizations have hiring problems rather than engagement problems. If the organization does not hire people who are aligned with values and passionate about its purpose, the company will eventually fail.

Even a naturally committed individual may struggle to contribute discretionary effort over the long-term, if he is not aligned. For this reason alone, employee engagement surveys are critical tools for measuring workers' feelings about their experiences of working at the company.

Employee engagement can only be improved by having a company that enables the employee experience to be properly aligned with the employees' needs.

On the other hand, values are the basis of an organization's culture. The essence of the employee's experience is their values and the behaviors that go with them. Employees become cynical when their opinions are expressed by themselves rather than by management.²

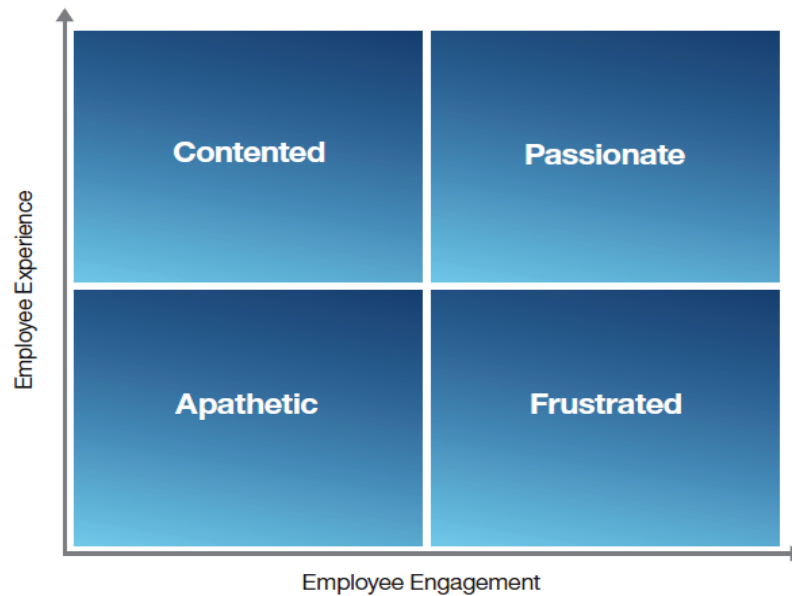
¹ Gallup, *Designing Your Organization's Employee Experience*, 2018.

² COHEN, (D) and TORONTO (O): « *The power of employee engagement and experience* », 2019.

• **Employee experience and engagement:**

According to IBM research, employees who are engaged are proud of and pleased with their company as a place to work, and they advocate for and hope to stay with it. To reflect employees' state at work, employee experience and engagement go hand in hand. Employees who are optimistic about their work experience and have a high level of engagement, for example, are passionate about what they do, employees who are negative about their work experience and have a low level of engagement seem apathetic¹, as shown in Figure N°06.

Figure N°06: Employee experience and engagement



Source: WorkTrends™ 2016 Global sample for the IBM/Workhuman Employee Experience Index Study.

• **Fulfillment:**

Fulfillment is a feeling we get when we operate in accordance with our intrinsic motivations and obtain a sense of purpose. The following are three characteristics of a fulfilling work experience:

Relationships: Having a sense of belonging and being connected to people.

Impact: Progress towards a goal in which we believe.

Growth: Overcoming a personal challenge.

Employees are looking for ways to discover and pursue what gives them meaning as work-life boundaries continue to blur. Employees may look for a new job if they do not find purpose and fulfillment in their current one. Employees shape how to make work more meaningful for

¹ IBM and WORKHUMAN, *the employee experience Index*, 2019.

themselves, while the organization offers the necessary environment for a fulfilling employee experience.¹

5. Drivers of employee experience:

Employers must first consider what their employees are good at and what makes them "tick" at work in order to drive employee experience. The second and most important move, in terms of business, is to match employees' aspirations with the company's goals and vision. This cultural alignment is required for any successful employee experience strategy.

According to IDC research, technology and career development are the key drivers of employee experience, but other factors should be considered as well.

Technology and tools: Employees want to feel appreciated and motivated, which can be achieved by providing them with the appropriate resources and technologies.

Progress in their careers: Employees want to advance in their careers, take on more responsibilities, and feel like they are contributing to the company's success. This includes lifelong learning and reskilling. Employees who are engaged feel a deep sense of belonging and confidence, and they are more committed to the company. Their values must be in line with the vision and strategy of their organization.

Socially responsible: Employees want their employers to be socially responsible, which is linked to their sense of purpose. Employees want to be a part of "change for the good," whether it's combating poverty, disease, or social inequality. Employees are becoming more concerned about sustainability, which is being introduced in their workplaces.

Flexibility: Employees often want their work-life balance to be more flexible.

Workspace design: It has the potential to increase employee engagement and collaboration. Many businesses are making their workplaces more holistic by building shared spaces, meeting rooms, and break areas where workers can easily meet and collaborate.²

6. Employee experience issues:

Customer experience: The first issue in the employee experience is the customer experience. Based on the principle of symmetry of intentions arising from the conviction that the quality of the customer relationship is equal to the quality of the company's relationship with its employees, the employee experience aims therefore to align with the customer experience to contribute to a coherent overall corporate and brand image.

¹ PwC, *making work more meaningful: Building a fulfilling employee experience*, 2018.

² IDC, *How Employee Experience Can Drive Digital Transformation*, 2020.

Attract: Attracting the skills the company needs is a real issue. Visibility and the employer's image are today essential levers in recruitment, the perception that employees (present and former) have of the company is an integral part of the employer's brand, and is therefore a lever to attract talent.

Retain: The only reason for attracting talent is to keep them. Providing employees with an experience that meets their expectations and needs is a powerful lever for retaining them in the organization.

Engage: Having loyal employees is good, but having committed employees is better! The employee experience makes it possible to develop a strong emotional commitment over time, throughout his career within the company, by considering the emotions at the point of interaction between the organization and the employees.

Quality of working life: Creating conditions that encourage professional and personal growth of employees, as well as an improvement in the workplace quality of working life, enables them to complete their missions in the best possible conditions. Actions aimed at achieving this goal would generate positive emotions, and would contribute to the perception of a satisfying and memorable experience for employees.¹

7. Employee experience Old rules vs. New rules:

Employee experience will become an increasingly important dimension of competing for and engaging the workforce in a world being changed by emerging technologies and the growing demand for skilled professionals and employees with fast-changing skills.²

¹ LOUREIRO, (S) and LEPETIT-BRIERE (M): Op.cit, pp.29-34.

² WALASH, (B) and VOLINI (E): *Rewriting the rules for the digital age: 2017 Deloitte global human capital trends*, 2017.

FigureN°07: Employee experience Old rules vs. New rules

Old rules	New rules
Employee experience defined by annual engagement surveys	Employee experience defined as a holistic view of life at work, requiring constant feedback, action, and monitoring
Culture is a topic on the company website and perhaps on the wall, but not measured or defined through behavior	Company uses tools and behaviors to measure, align, and improve culture during change, M&A, and other major initiatives
Companies have a series of HR leaders across recruiting, learning, rewards, engagement, and other HR services	Companies have someone responsible for the complete employee experience, focused on employee journeys, experiences, engagement, and culture
Compensation, benefits, and rewards are managed with a focus on benchmarking and fairness	Compensation, benefits, rewards, and recognition designed to make people's life better and balance financial and nonfinancial benefits
Wellness and health programs are focused on safety and managing insurance costs	Companies have an integrated program for employee well-being focused on the employee, her family, and her entire experience at life and work
Rewards are designed to cover salary, overtime, bonus, benefits, and stock options	Rewards also include nonfinancial rewards: meals, leaves, vacation policy, fitness, and wellness programs
Employee self-service is viewed as a technology platform that makes it easy to complete HR transactions and reports	The employee experience platform is designed, mobile, and includes digital apps, prescriptive solutions based on employee journeys, and ongoing communications that support and inspire employees

Source: WALASH, (B) and VOLINI (E): *Rewriting the rules for the digital age: 2017*
Deloitte global human capital trends, 2017

Section 03: workplace in the digital age

We live in an era where the workplace is more than just a physical space occupied by people during working hours. The growing importance of digital technologies and the rapidly changing nature of work make change in the workplace fundamental. In this section, we will clarify the concept of a digital workplace and define its importance.

1. Digital: the fourth industrial revolution

In the 18th and 19th centuries, society evolved from agriculture to industry, driven by mechanical innovations such as the steam engine, which was the first industrial revolution. Followed by the second industrial revolution, which is characterized by the exponential growth of industry from the late 1800s to the First World War, conducted by mass production techniques, electric power, and internal combustion engines. In the 1980s, the third industrial revolution was born as a result of emerging electronic technologies. Today, we are witnessing the emergence of a fourth industrial revolution, which is based on the wide availability of third-generation digital technologies. This modern revolution is characterized by technologies that combine physical, digital and biological spheres.¹

The emergence of the fourth revolution technologies such as: artificial intelligence, genome modification, augmented reality, robotics and 3D printing impact how the way companies work, as well as how people communicate, collaborate and share information.

This revolution is not just about technology. It is an opportunity to work on leadership based on the values of emerging technologies. It is, therefore, not a prediction of the future, but a call to action. The fourth industrial revolution must be based on common values, such as common interests, human dignity and intergenerational management. Achieving this vision will be a major challenge and responsibility for the next fifty years.²

2. Digital transformation:

Digital transformation means the improvements associated with the introduction of digital technologies in all aspects of an organization, from sales to marketing, goods, services, and new business models. Using technology can improve business processes and create new opportunities for organizations, allowing them to access new markets and produce goods and services more quickly and profitably.³

¹ SALDANHA, (T): *why digital transformations fail: the surprising disciplines of how to take off and stay ahead*, Berrett-Koehler Publishers, Oakland, 1st Edition, 2019, pp.6-7.

² MIGNOT, (O): *la transformation digitale des entreprises*, Maxima Editions, Paris, 2019, pp.15-18.

³ AGUTTER, (C) and others: *VeriSM™ - A service management approach for the digital age*, Van Haren Publishing, Hertogenbosch, 1st Edition, 2017.

Digital transformation isn't a buzzword anymore, but business reality. It refers to the implementation of processes and practices that enable organizations to compete in an increasingly digital world. From this concept of digital transformation, there are three implications for managers:

First, digital transformation is about how the company reacts to emerging digital trends, whether it adopts them or not and whether it accepts them or not, the requirement of digital transformation is beyond its control. It's about adjusting how its stakeholders use digital technologies and how their expectations and behavior are impacted by their use.

Second, digital technology adoption is only a small part of the digital transformation story. Other issues, such as strategy, talent management, organizational structure and leadership, are as important as or more important than technology itself.

Third, there is no requirement to have specific knowledge or skills to be a leader in the digital age. But there is a huge gap between those who are effective digital leaders and those who are not, and that difference is determined by the ability to change and adapt.¹

The purpose of the digital transformation is customer experience and employee experience. Digital technology and all the possibilities it offers represent a way to offer a global experience and to streamline the journey of the consumer and the employee. There is a link between experience and digital transformation because with the latter it is not only the tools that have evolved or even just the uses, it is the ways of thinking, of considering the world.²

3. Evolution of the workplace:

Although the workplace has been evolving since the agricultural and technological revolution, the mass use of information technology has forever shifted the way in which workers operate. This shift has increased in the last 30 years as a result of the rise of three major trends:

- **Changing workforce:** As baby boomers leave, knowledge leaves the organization, emphasizing the importance of capturing it. The younger generation of employees, on the other hand, is highly IT savvy and expects agile, easy-to-use resources in the workplace, just as they do in their personal lives.
- **Information overload:** Despite technological advancements, workers are also unable to locate what they want.

¹ KANE, (G): « *Introduction: Digital transformation might be different than you think* », How to go digital: Practical wisdom to help drive your organization's digital transformation, MIT Sloan Management Review, 2018, pp.xi-xvi.

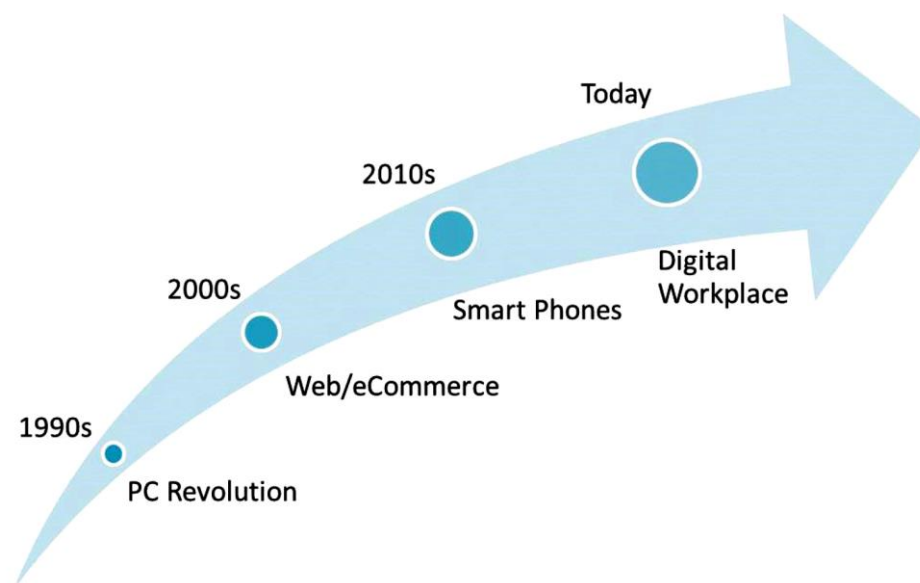
² LOUREIRO, (S) and LEPETIT-BRIERE (M): Op.cit, p.23.

- **The need for speed:** in today's fast-paced workplace, employees are constantly required to work harder and cooperate more rapidly to complete their jobs.

Companies struggle to address the various demands of multi-generational employees as the workplace's demographics continue to change. The rate of transition continues to escalate as the usage of the internet and smart devices increases. Continuous requirements to improve efficiency and reduce costs exacerbate these shifts, which make it more difficult for employees to satisfy market expectations. These trends are transforming the work environment.¹

Over the years, the workplace has shifted from being centered on offices, conference rooms, and desk phones to being centered on desktop computers. Many office papers and projects are now available online. Instant messaging and email have emerged as the primary means of communication. Thus, the digital workplace was born.² Figure N°08 highlights the evolution of the digital workplace.

Figure N°08: The evolution of workplace changes in the last 30 years



Source: ATTARAN, (M): «*Increasing Productivity in the Information Age*», Industrial management, 2019, pp.16-21

3.1.Engagement fuels productivity:

Today's and tomorrow's organizations must improve their ability to hire, grow, and retain knowledgeable employees with the right attitudes, qualities, and skills. Employees must be

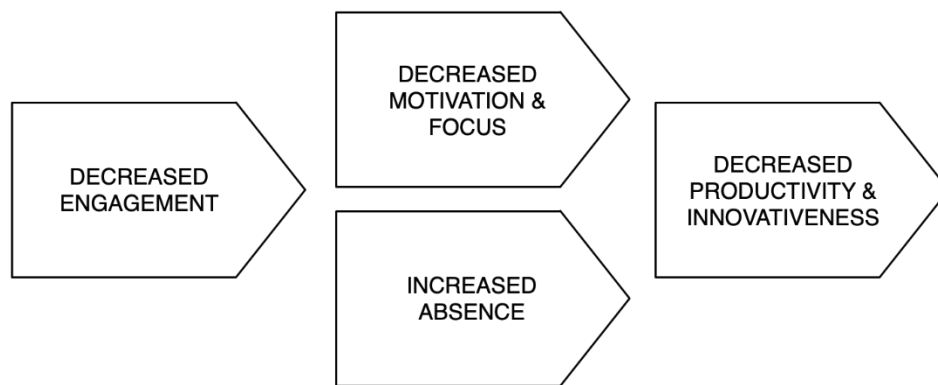
¹ <https://www2.deloitte.com/be/en/pages/technology/articles/the-digital-workplace.html> (consulted on April 29th, 2021 at 12:24 a.m.).

² ATTARAN, (M): « *Increasing Productivity in the Information Age* », Industrial management, 2019, pp.16-21.

provided with the appropriate conditions and encouragement in order to perform at their best and feel involved in their jobs. In recent decades, research has revealed a strong correlation between high employee engagement and organizational performance.

On the other hand, other research indicates that workers are becoming less committed, and this is particularly true in large organizations. This is an indication that something is profoundly wrong with how they work, in addition to costing them a lot of money in lost production.

Figure N°09: The degree of engagement affects productivity and innovativeness



Source: <https://www.dwstrategydesign.com/english> (consulted on May 05th, 2021 at 10:02 p.m.)

There are a variety of explanations for this, but ultimately, it has to do with the organization's ability (or inability) to move from routine work to creative knowledge work. Designing the digital workplace to enable innovative and collaborative knowledge work as well as increasing employee involvement is an important part of this transformation.¹

3.2. The Digital Workplace is the core of a complex digital ecosystem:

Addressing the digital dimension is similar to addressing the digital workplace, regardless of the organization's role or business challenges. Transforming a traditional workplace into a digital workplace means reinventing the workplace, taking control of emerging digital technologies, lowering capital costs, and creating a new end-user experience. The Digital Workplace is more than just an IT topic. It's an opportunity for businesses to become end-user centric in order to unlock new performance levers. As a result, the digital workplace will

¹ BERG, (O) and GUSTAFSSON (H): *Digital Workplace Strategy & Design: A step-by-step guide to an empowering employee experience*, Bod-books on Demand, 1st edition, Norderstedt, 2018, pp. 25-26.

be seen as an overall company asset that is just as essential to the organization as any other core service.¹

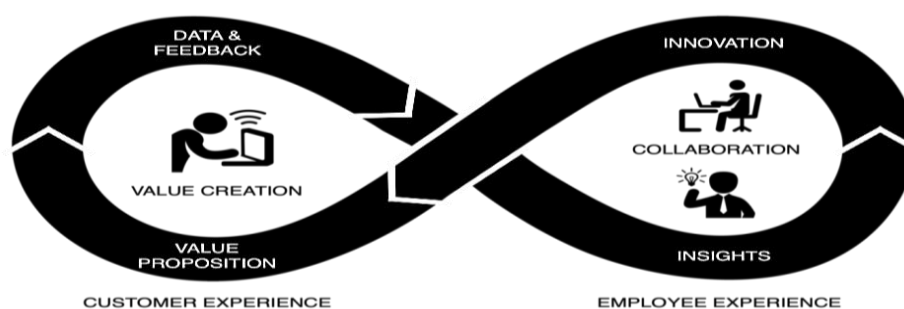
4. The definition of the digital workplace:

The digital workplace can be defined as the workplace's natural evolution. It includes all of the digital technologies people use to get their job done, both those that are currently in use and those that will be introduced in the future. It includes everything from HR apps and core business applications to e-mail, instant messaging, and company social media tools and virtual meeting tools.² Frank Schönefeld defines the digital workplace as the: *«totality of the required access infrastructure, applications and device platforms of information or knowledge workers who need them to perform their work tasks and engage in collaboration»*.³

However, Burg and Gustafsson believe that the digital workplace should be described in a way that separates it from a digital work environment that has not been planned holistically or with user front and center. It needs to be made clear how we should think and act to get it right. To design a digital work environment that empowers people, we must see and appreciate the digital work environment as a whole from the users' perspective. Knowledge and the intention to organize the whole and ensure that each interacts well are critical, just as in urban planning. The digital workplace should be as efficient as possible in fulfilling all of its users' needs.

A functional digital workplace is the foundation for effective digital transformation. As shown in Figure N°10. The digital workplace serves as the required platform for the company to quickly adjust to new expectations, needs and opportunities.

Figure N°10: the digital workplace plays a key role in digital transformation



Source: <https://www.dwstrategydesign.com/english> (consulted on May 06th, 2021 at 10.39 a.m.)

¹ Capgemini Consulting, *the new digital workplace: employee productivity, brand image, business value*, 2013.

² HAMBURG, (I): *Implementation of a digital workplace strategy to drive behavior change and improve competencies*, Strategy and Behaviors in the Digital Economy, IntechOpen, 2019, pp.19-34.

³ HAMBURG, (I): Op.cit, p.22.

The development of digital environments needs a whole new way of thinking and acting, one that prioritizes the people who work in them.¹

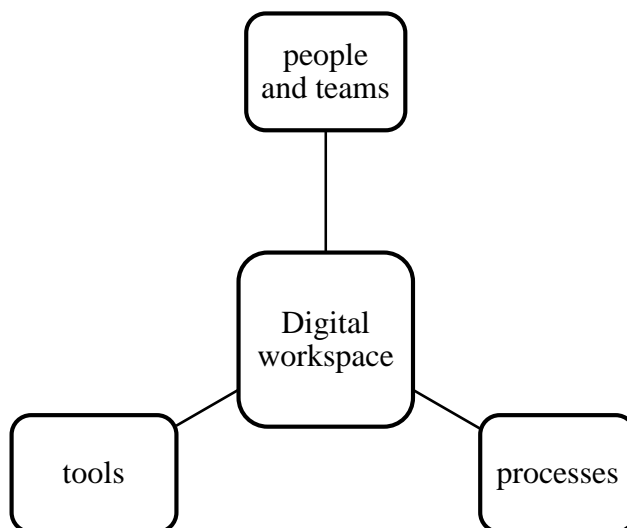
According to Jeffrey Mann, employees who lack the ability and desire to fully participate in the organization's digital transformation will struggle to achieve their full potential. Digital workplace initiatives should be prioritized, and the tools needed to enable them should be deployed. Successful digital workplace programs must be aligned with digital transformation priorities, clearly identify opportunities to increase efficiency and efficacy through improved digital dexterity, prioritize technology investments, and empower employees to accept disruptive change.²

5. Understanding your digital workspace:

We need a model that integrates existing knowledge with knowledge that can be discovered by analyzing data, a model that can be used to forecast future states and exploited by software to provide useful solutions for people. There are some of the dimensions that you should consider in order to construct your own model of your digital world, as well as the components that come together to shape this model.

According to Ashif, there isn't a special model that will work. There are broad lines that can be applied across organizations, and there is some knowledge that can be transferred from one to the other, but in the end, you must explore your own space to understand what makes it work and how to model it.

Figure N°11: Digital workspace model



Source: Elaborated by ourselves

¹ BERG, (O) and GUSTAFSSON (H): Op.cit, pp.45-46.

² Gartner, *a digital workplace is crucial to digital transformation*, 2019.

5.1. People and teams:

It all begins with people and the teams that they form. Inside the workspace, you mostly collaborate with the rest of your team in order to collectively solve problems. As a result, it's critical to have a consistent model of who your people are, what their skills are, what they know, how they're doing it, and even why they're doing it.

5.2. Processes:

The next step after determining who is on the team is how the team accomplishes its tasks. Often, all of the information is available, as well as the necessary resources, but there is a "rule" that things must be done in a "certain way." Processes describe these measures as well as the rules that govern them. Creating a map of all relevant processes, what data is needed at each point, who is involved, and how information flows from one phase to the next seems to be a laborious exercise to begin with. Nonetheless, it is critical that you be able to adjust, improve, and optimize them with confidence.

5.3. Tools:

Once we have a better understanding of what model to use to represent people in your teams and companies, as well as a process map, you will move on to tooling. Starting with use cases is usually more productive than cataloging every single tool. The use cases would allow you to discover concrete information that is important for solving a particular problem, and you can then extend to map back to processes, people, and, eventually, the solution. It's critical to understand the process you're trying to support (without referring to a specific tool) and how the data in the tool can help support that process. You will then go on with more courage, swapping out resources while being certain that the processes you care for will be assisted.

In sum, the digital workplace is a digital workspace that makes it easier to operate. It's the number of interactions between the people and teams that make up an organization, as well as the processes that are followed and the tools that help with those processes. The digital environment should also be an expression of an organization's culture and values. It is pointless to claim to be an open organization only to find out that the tools are compartmentalizing the activity and preventing people from freely collaborating. Understanding the digital environment is a crucial precondition for implementing automation in the workplace. With a strong understanding of why things are the way they are, an organization can confidently introduce change.¹

¹ ASHRI, (R): *The AI-Powered Workplace: How Artificial Intelligence, Data, and Messaging Platforms Are Defining the Future of Work*, Apress, 1st Edition, New York, 2020, pp.76-82.

- **Digital workplace ownership:**

According to Gartner, 46% of all companies surveyed are working on a digital workplace initiative, but only 4% have appointed a digital workplace owner and leader.

Is it necessary for someone to take charge of the digital workplace?

Yes, according to Berg and Gustafsson, just as someone must oversee city planning within a city. Many of the issues in the digital workplace are caused by a lack of overall control, resulting in fragmented ownership. Everyone owns and is responsible for their part, but no one owns or feels responsible for ensuring the optimum operation of the digital environment as a whole.

As a result, a company without anyone to take charge of its digital workplace faces a far higher risk of failure. A crucial component of the solution is holistic ownership. Without it, there's a good chance that the digital workplace will come to a halt because of a single initiative rather than continuing to evolve as a process.

Taking ownership of the entire digital workplace can be stressful. That is undeniably difficult. However, anyone looking for a challenge and possessing the necessary expertise and skills should not be afraid to take it on. This is an important and meaningful role, according to Oscar and Henrik, because the digital workplace is an enabler for a business's digital transformation.

Some companies have designated a special committee on the digital workplace, which is made up of members from different business domains. That isn't quite enough, in Oscar and Henrik's opinion. The risk is that it will end up in a situation where "shared responsibility is no longer considered a responsibility". The importance of leadership and management can be seen here in the use of mutually agreed-upon goals.

According to Gartner, the Chief Digital Officer (CDO) should be the one to take ownership of the digital workplace. The person who drives the organization's digital transformation is also dependent on there being a digital workplace that allows this transformation. Putting the digital workplace outside of this person's direct control is possibly a bad idea, since they are two sides of the same coin.¹

6. The digital workplace initiative as a continuous transformation:

There are four major paradigm shifts in the IT world today that have an effect on the digital workplace. First, since employees should be able to work from anywhere and at any time,

¹ BERG, (O) and GUSTAFSSON (H): Op.cit, pp. 36-37.

digital workplace technologies must become location-independent. The physical workplace will eventually be replaced by a virtual workplace. This necessitates network and security infrastructure investments, as well as a move away from desktop equipment and toward mobile devices. Second, taking advantage of big data necessitates access to data repositories which, by far, exceed the size and computing power of your existing data center resources. Third, is the Cloud, which is becoming more prevalent in the digital workplace. In business, however, there is a noticeable move toward the cloud. The transition to the cloud should be incremental, with a hybrid model combining data center and cloud services. The digital workplace initiative will continuously optimize the transfer of services and resources to the Cloud in order to improve end-user services while also looking for cost savings. The fourth paradigm shift is about collaboration, or methods and tools that enable people to interact in a networked manner and co-create knowledge. Collaboration enables information to be created and disseminated more quickly. The collaboration paradigm extends from instant messaging and social networks to video conferencing and content co-authorship and editing tools. These paradigmatic changes need to be integrated into the digital workplace vision. They also occur in successive waves of emerging technologies that are rapidly changing. To keep up with and profit from these rapid changes, your way of providing tools and infrastructure related to the digital workplace will need to be adapted.

The digital workplace is something that exists today, is evolving as technology and user behaviors change, and will continue to evolve over time. As a result, the digital workplace project should be viewed as a continuous transformation.¹

7. Five Essential Elements of the Digital Workplace:

Designing the digital workplace of the future, however, presents real challenges. Many businesses invest in productivity software but fail to integrate it with their business applications. Others do not have the required IT infrastructure in place. Another difficulty is the question of security. Organizations should consider the following five elements to avoid these problems and capitalize on new ways of working:

Access devices: Employees must be able to use business apps in ways that are convenient for them. It's the most effective way to keep them productive and creative. Employees need the freedom to select the most efficient method of accessing business applications regardless of where they operate. Companies must reconsider their device strategies based on business requirements as smartphones and tablets become a necessity.

¹EUROPEAN COMMISSION, *Digital Workplace Strategy*, 2017.

Communications infrastructure: Solid connectivity remains a critical necessity in the digital workplace, both in the office and on the road. It is essential to ensure that the communications technologies and collaboration applications that drive today's business operate properly. Corporate networks must be capable of handling simultaneous voice, video, and data communication both within and outside the organization's network.

Business applications: Provide workers with access to the applications, whether core utilities such as ERP, CRM, or collaboration and administrative applications or business intelligence, no matter where they are, boosting efficiency. Even if team members are traveling, working from home, or in a different place, the best business apps enable them to develop, display, edit, and collaborate on project documents in real time.

Workplace telecommunications tools: When it comes to tapping into remote expertise or telecommuting, for example, email or phone calls are insufficient. Connecting people through real-time presence and rich online meetings such as audio, video, and web conferencing technologies can improve communication quality and make a difference.

Digital security: Today's workplaces need security solutions that protect organizations' networks across the attack continuum. Data security challenges have arisen as a result of the integration of cloud computing, social media, and mobile computing technology around the world. However, emerging technologies also allow businesses to safely store information in the cloud and make it available on a variety of devices. The right solution allows offline access to data and peer-to-peer activities between devices. Many companies have benefited from private cloud environments because they have increased mobility and reduced costs while also improving security.

The digital workplace measures will assist companies in attracting the talent they will need to remain competitive and keep up with global social and business changes.¹

8. The digital workplace principles:

The following principles underpin the digital workplace initiative's implementation:

Value focus: When a product or service is used, its value is created. This extends to physical goods and services, as well as IT systems and digital services. Information technology, in this perspective, is a tool for creating value rather than an end in itself. As a result, value creation must be at the center of all IT development. This is accomplished by developing IT programs that address the right issues in the right way and training workers on how to use them

¹ <https://www.strategy-business.com/blog/Five-Essential-Elements-of-the-Digital-Workplace> (published on January 14th, 2014 consulted on May 05th, 2021 at 07:11 a.m.).

effectively. Focusing on value also entails eliminating and reducing waste, or, in other words, anything that does not add value.

User-centered: To define what value is, you must first recognize and comprehend the users, their needs, and the challenges they face. To optimize value creation and minimize waste, you must always put the user front and center. One way to do this is to always try to see it through the user's lens. Many of the issues encountered in the digital workplace have arisen as a result of a lack of user-centered design. Changes are implemented without consideration of how they will affect the user's work environment or how they will be perceived by the user.

Holistic: Many of the issues in the digital workplace come from a lack of a holistic perspective. Individual parts are changed without considering how they will affect the whole, especially the users' work situation. If modifying one component makes the users' job situation more difficult, this will make it harder for them to complete their tasks, and they will generate less value. As a result, when changing the digital work environment, such as creating a digital service, you must try to see the whole thing and take the entire usage environment into account. This often covers the physical work environment.

Iterative: Rather than taking a couple of large steps, you can deal with confusion, ambiguity, and risks by taking several small ones. You evaluate each step you take to see how things are going, draw conclusions, and learn what works and what doesn't. After that, you adapt to the way you take the next steps. You can also produce and demonstrate results rapidly in an iterative way. However, to make your progress clear to all, this enables you to place the findings in the hands of the users and obtain valuable feedback even before you are fully done developing the solution.

Co-creative: Aside from using an iterative approach, forming multidisciplinary teams is another way to handle uncertainty and ambiguity. This entails gathering all of the skills and viewpoints that may be required to shed light on and comprehend a problem from all sides in order to decide what solutions are feasible. For something as complex as the digital workplace, co-creation is extremely effective. You can include all important stakeholders as prospective users, as well as everyone else who would be directly or indirectly impacted by the proposed change. This allows you to gain access to their ideas and experiences, gather information about their needs and situations, and, most importantly, plan for the change's implementation.

Evidencing: Information technology is abstract, particularly before a finished product or service is available to interact with. If you want to understand the issue you are trying to solve

and figure out the best way to form the solutions before you have a finished product or service, you must use all of the tools at your disposal to transform your hypotheses, ideas, and solutions into concrete proof. Evidencing is a principle that can be applied not just to service creation but even to strategy development, where different visualization approaches are used to describe the present ("as is") state, the potential ("to be") state, and make the organization's strategies more concrete and easier to implement.¹

9. The benefits of digital workplace in business case:

Cost Optimization: Successful digital workplace programs have resulted in significant cost savings. Through innovative ways of operating, agile working programs are assisting in the rationalization of expensive real estate portfolios. Another main driver of cost savings in this field is the consolidation of technology, such as content management software and the related resources required for support and development. Additional savings can be realized by automating processes and real-time tracking activities. Finally, the reduction in travel is an obvious advantage.

For example, through agile working, the United States Patent and Trademark Office (USPTO) saved \$19.8 million in new real estate expenses. It has increased its workforce (from 6,000 to nearly 10,000) without growing its real estate footprint by leveraging homeworking.

For example, in fiscal year 2012, NASA saved US\$21 million by replacing travel with video conferencing whenever possible.²

Productivity: is one of the digital workplace advantages that has gotten a lot of attention in studies so far. There is now a wealth of evidence linking increased efficiency to successful digital workplace investment.

For example, Fife Council, Scotland's third largest local authority, measured a 22% rise in productivity among employees who were able to work flexibly with the use of a mobile app platform that allows them to streamline their workflow. The programme is on track to save the Council about £20 million.³

Business Continuity: Disasters such as the tsunami in Japan in 2011 and Hurricane Sandy in the United States in 2012, or extraordinary circumstances (terrorist attacks, steps taken to avoid a swine flu pandemic) have highlighted the importance of allowing workers to operate remotely to avoid shutdowns by organizations. Many examples of effective business

¹ BERG, (O) and GUSTAFSSON (H): Op.cit, pp.51-55.

² [Agencies Are Saving Millions With Virtual Events - Nextgov](#) (published on August 22nd, 2013 consulted on May 08th, 2021 at 07:39 a.m.).

³ [Fife Council on course for £20M savings from mobility deployment - Information Age \(information-age.com\)](#) (published on November 04th, 2013 consulted on May 08th, 2021 at 08:13 a.m.).

continuity in crisis circumstances have emerged, strengthening the case for increased digital workplace investment.

During the February 2010 snowstorms, for example, when much of the federal government was effectively shut down, 1,200 US Defense Information Systems Agency (DISA) employees operated from home. Homeworking is particularly useful for pandemic preparation, according to the National Institute of Health (NIH). The NIH continued to operate through the February 2010 snowstorms.

Corporate social responsibility (CSR): Inevitably, one of the main details included in this would be the company's attempts to reduce its environmental effects. Some of the measures that led to this effort are agile working programs and investment in online communication platforms that minimize the need for travel and real estate. Minimizing an organization's environmental impact makes sense on a variety of levels and has many advantages. Some of these are intangible, such as the potential to help maintain or enhance an organization's reputation, the potential to reduce environmental taxes and fines, which could have been implemented in various countries to promote energy conservation or a reduction in the carbon footprint.

For example, Microsoft reports that in the first year of using unified communication technology, its workers stopped traveling more than 100 million miles, saving 17,000 metric tons of CO₂.

Increased revenue: There are currently a variety of digital workplace interventions that can be implemented to improve sales and frontline workers to increase revenues. These can be as simple as providing better information or as complicated as gamification programs aimed to foster healthy competition among sales teams in order to achieve and exceed sales goals.

For example, HCL Technologies launched Wikiportal sales, which is built on the SharePoint platform and connects over 10,000 sales, marketing, and solutions employees from 31 countries to exchange ideas, information, and collaborate. One of its tools, the Reference Management System (RMS), is used to map current clients to establish a reference that aids in transaction closing. The RMS, according to HCL, raises the bid-to-win by 80% compared to the company's standard.

Accelerating innovation: Innovation is accelerating at an exciting pace where the organizational culture is supportive and the right digital technologies are in place. Beyond traditional R&D boundaries, the digital workplace allows companies to extend innovation engagement to the entire workforce, as well as partners and customers. According to a PwC

report, three-quarters of CEOs believe that innovation is at least as critical as operational efficiency.¹

Example: On the intranet, American Electric Power launched an ideas management system to allow workers to propose solutions to real-world issues that the organization is facing. Only a few months, this assisted the organization in identifying US\$8 million savings.

This list isn't considered to be exhaustive. For example, other advantages may be found in improving risk management or improving information findability.²

10. Implementing challenges and obstacles:

A great digital workplace can't just be a collection of tools. Context, structured and unstructured data, and consistent coverage of information flows are all essential in the workplace. An information management system might also be rendered useless due to a lack of clarity between tools and business requirements. Technology can only provide limited value without a proper business case, business needs, or purpose. Employee education on how to use technology properly in the workplace is a critical basis for increasing productivity and quality.

There are different barriers to implementing DWS in a way that allows for important and quick growth in businesses. For example, according to Altimeter's 2017 State of Digital Transformation Survey, the following are the most significant digital transformation obstacles affecting organizations:

- Employees and leadership lack digital literacy and expertise.
- Digital transformation is misunderstood as a short-term cost center rather than a long-term investment.
- Lack of a culture that is empowered and focused on agility and progress.
- Lack of leadership and purpose.
- Lack of budget.
- Lack of employee resources.
- Lack of a sense of urgency to compete in a different way.
- Human obstacles: Politics, egos, fear, and doubt.

According to a recent Forester Research 2017 survey, there are different reasons for employees' ineffective usage of digital workplace solutions, including:

¹ PwC, *unleashing the power of innovation*, 2013.

² MILLER, (P) and MARSH (E): *The Digital Renaissance of Work*, Routledge, London, 1st Edition, 2014, pp.97-112.

- Having trouble logging into several apps.
- Inability to access data and apps both inside and outside the office.
- Accessing data with the assistance of others.¹

Conclusion:

The current chapter allowed us to understand that companies must place people at the center of their workplace and understand what matters most to them in order to build positive experiences. Thus, their positive and negative experiences will determine how hard they work, how much they interact, and whether or not they are invested in increasing operational performance. Organizations that invest the most in employee experience are more likely to be rated as the best places to work, to lead in innovation, and to provide excellent customer experience. As the main driver of employee experience is technology, employers must implement digital solutions in the workplace to enhance the way employees work and make them more engaged and productive. Therefore, companies that have the right combination of talent and technology will succeed in the competition for talent.

¹ ATTARAN (M), ATTARAN (S) and KIRKLAND (D): «*Technology and organizational change: harnessing the power of digital workplace*», Handbook of Research on Social and Organizational Dynamics in the Digital Era, IGI GLOBAL, 2020, pp.383-408.



Chapter Two

Employee experience at the heart of digital workplace

Introduction:

As the workplace becomes digital, the workforce can communicate and collaborate in new and effective ways. How and to what extent employees use the digital workplace to interact is ultimately determined by the company's culture. On the other hand, the emergence of the pandemic has accelerated businesses' adoption of digital workplaces. Organizations must become more digital for a number of reasons, including remote work and a dispersed workforce.

Section01: Digital workplace and culture

Driving cultural change is the key to the successful implementation of the digital workplace. In this section, we will explore the importance of cultural change in the digital workplace's adoption.

1. Embracing the digital challenge:

Digital technologies are radically shifting how we work, how we manage, where we operate, the way we organize, the products we use, and the way we communicate. Organizations are constantly looking for new ways to do things, and adopting innovative technologies into their activities has proved to be advantageous. Such adoption continues to lead to the digitization of workplaces, and it is critical to consider how emerging technologies are changing the way employees perform their jobs, as well as how companies can adapt to and evolve as a result of such technological adoption. Exploiting and encouraging employee digital dexterity will create significant business value, which is critical because most jobs now require sustainable use of technology. Many companies are shifting to a digital business model that needs more employee involvement in the digital business value chain, and the ability to rapidly exploit emerging technology will be an important source of competitive advantage. Going digital means more than just introducing new technologies, it also entails making improvements to business processes, staff, and fundamental assumptions, and digital delivery is as much about cultural change as it is about evolving technology.¹

Increased workplace digitization benefits companies by increasing productivity, cost savings, more flexible and agile employees, and overall increased flexibility and adaptability in an increasingly complex marketplace. Companies are collaborating more internationally and with a more diverse and global workforce. Although this has been beneficial to employers, it

¹ HADDUD, (A) and MCALLEN (D): « *Digital Workplace Management: Exploring Aspects Related to Culture, Innovation, and Leadership* », Portland International Conference on Management of Engineering and Technology (PICMET), IEEE, 2018, pp.1-6.

has also shifted the power balance in the relationship between employer and employee, favoring the employee more often. Employees are able to work from anywhere and stay connected via smartphones, tablets, and other mobile devices, allowing them to interact with colleagues and stay on top of digital trends more quickly than the companies they work for.

This modern digital workplace also brings its own set of challenges, such as security, creating a new kind of digital etiquette, and the propensity to establish an expectation of always being "on," which can lead to burnout and retention issues. Implementing digital technologies into the workplace may have a negative impact on staff efficiency, as well as create its own distinct culture, which can impact past work cultures and overall work experiences. These shifts will assess the workplace by pushing executives and workers to adapt to their interactions with each other as well as to the technology that enables them to do their jobs.

Companies have to be proactive in developing new systems and policies, as well as reinterpreting their organizational culture to accommodate digital in the workplace, in order to avoid losing customers, productivity, and workers. Companies that will be open to innovation and implementing new digital approaches while still curating such digital interactions for their workers, such as establishing clear boundaries between work and non-work, and making the workplace more human-centered rather than technology-centered, will succeed in this new digital workplace.¹

1.1 Technology the enabler:

Technology itself is never a solution, but it is a strong enabler. A car is useless if nobody drives it, a computer is useless if no one turns it on, and the Internet is meaningless if no one connects to it. Technology is just a tool to enable and unlock behaviors and potential. Inside companies, technology enables sharing, flexible work, and democratized learning. The best part is that today technology has never been easier to access and deploy than it is now. Collaboration platforms, instant messaging applications, and videoconferencing solutions are all based on the cloud allowing employees to stay engaged and connected to each other and information, anywhere, anytime and on any device.²

Connecting the workforce is enabled by technology, but it also focuses on the new habits that workers bring to the workplace, as well as the new practices that managers and leaders must adopt to embrace a connected workforce.³

¹ Deloitte, *digital workplace and culture*, 2016.

² MORGAN, (J): *the future of work: attract new talent, build better leaders, and create a competitive organization*, John Wiley & Sons, New Jersey, 2014, p.63.

³ *Ibid.*, p.154.

2. Cultural change and behavior supporting digital transformation:

A strong understanding of organizational culture and technology is an essential problem of the digital workplace strategy, and this can be accomplished by an effective learning strategy. It ensures that tools, procedures, and systems achieve their full capacity and that the initiative does not fail. An organization's culture impacts how workers act and operate in the context of digital transformation as well as its performance, success, and failure. It is critical to create a change management strategy to ensure that the digital workplace strategy aligns with the organization's working culture.

The issue is how managers and leaders in organizations can influence employee behavior and practice changes, leading to new products and services that will allow the transformation from traditional business models to digitally effective ones.

Isaac Sacolick outlines three ways of increasing employee participation in digital initiatives:¹

- **Encourage people to ask questions:** Employees who are able to ask questions are able to step away from "the way we always do" and into conversations about what is best to do in digital workplaces.
- **Get out of the office and meet customers and prospects:** Representatives from companies should go out of the office, learn from consumers, take into account their needs, and build a perspective on the way to offer new experiences. Marketers should learn to better communicate and target potential customers. Sales should learn who their new competitors are and how to defend themselves against sales objections. Technologists should gain a better understanding of the underlying technological skills needed to deliver value propositions.
- **Ask for data, then insights, then opinions:** A data-driven organization provides practices and resources for employees to present a thesis by first presenting the data that supports it, then inferring observations, and finally expressing their opinions and conclusions. Employees' roles in the enterprise, their employment, and how they generate business value are all subject to change as a result of digital transformation, in order to persuade more workers to embrace the digital strategy by challenging the status quo, learning what consumers need now, and effectively using data to make bottom-up and top-down decisions.²

➤ **Adaptation of employees to digital transformation and digital workplaces:** When a company undergoes changes in its daily operations, such as digital transformation, both

¹ HAMBURG, (I): Op.cit.

² SACOLICK, (I): *driving digital: the leader's guide to business transformation through technology*, Amacom, New York, 2017, pp.117-119.

managers and workers face challenges. If employees do not keep up, the transformation's chances of success are very low.

The following suggestions assist workers in adapting to the digital transformation:

- **Open dialogue:** Employees are known to be resistant to change when it comes from the top down, so it's important to have a conversation with them about whether and how they see changes in digital transformation. If it is possible, an open dialogue should begin at the top and include all employees in the process of change. One person in charge of digital transformation should be able to bridge the gap between actual technology implementation and workplace culture and demands.
- **Invest in training:** It is essential to promote a culture of change and make sure workers develop the skills to keep up with a fast paced and competitive world. All workers should be motivated to go through the company-training program to drive adoption.
- **Foster a culture where experimentation is allowed and encouraged:** Employees will experiment without fear of repercussions for the first time. They often find new and easier ways to complete routine tasks, resulting in increased performance and productivity.
- **Support collaboration:** Employees can stay connected with their own devices by combining online and offline contact. Employees of varying ages are often brought together by digital connections that bridge generational differences. Collaboration in departments and around the enterprise is aided by new digital communication. The digital transformation should not be experienced only as a technological change, but as a shift toward more intuitive task completion.
- **Involve employees:** Increasing employee engagement makes it easier to embrace digital transformation. Employees can reach out to customers quickly and directly using digital technologies. Employees would feel more valued and be more open to change if internal employee engagement was improved. Adoption is driven by engagement, but digital transformation can also drive engagement. Employee happiness is boosted by flexibility. Flexibility is easier to implement in the digital era than it has ever been.¹

¹ HAMBURG, (I): Op.cit.

3. Digital Culture Drives Adoption:

A company's success today depends on its employees' ability to constantly learn, adapt, innovate, build, and lead. The company will benefit from the right talent and leaders, who will bring change, creativity, and, eventually, development. However, in order to get the best out of talent and leaders, an organization must create the right culture and environment. Culture is a powerful and relevant way to drive digital adoption and involvement in the company, in addition to helping employers get the best out of their employees. Organizations in the early, evolving, and maturing stages of digital maturity take different approaches to leading to change.

3.1.Mandate from Management:

Management mandates have been identified as the primary method for driving digital adoption and interaction in early stage companies. In this case, the nature of the next digital strategy is determined by organizational leadership, and workers are required to fall in line. Top-down directives can be surprisingly ineffective tools for driving adoption, which is a major issue in this approach. It can be difficult to mandate all of the required behaviors in order to achieve the desired business value from technology. Digital leadership necessitates methods that vary from the established command and control structures of traditional manufacturing firms. Managers who simply demand a digital transformation are unlikely to deliver the results they expect.

3.2.Expect Employees to Adopt:

A different approach is taken by organizations in the developing stage. Although managers are aware that workers will not be compelled to follow new strategies by magical powers, they often fail to provide the time, support, and encouragement to do so that would be required in other situations. Instead, organizations also invest a significant amount of time, money, and energy into digital platforms, hoping that the importance of technology will become so clear to workers that they will be compelled to use it in their jobs. And, without a doubt, creating a user-friendly tool or platform that provides clear value to the user is critical. Organizations who simply expect workers to adopt, on the other hand, tend to focus on the technical aspects of implementation and often do so well while overlooking the organizational change management strategies that are needed to support modern digital technology.

Employees must not only be taught how to use modern technologies, but they must also be given time to find out how to implement it into their jobs.

3.3. Driving Transformation through Culture:

Mature organizations drive digital transformation in a completely different way, by concentrating on building environments conducive to digital transformation. Nearly 60% of companies accelerate their digital efforts by fostering a strong culture that values risk-taking, teamwork, agility, and continuous learning.

When an organization considers (or reconsiders) its own digital transformation plans, employers should ask themselves if they are taking the right path. Do they want to push digital transformation, either by mandating adoption or by providing technology? Or are they pulling change by cultivating the conditions that will bring about the changes they want? These distinctions will decide whether an organization's digital transformation efforts succeed or fail in the end.¹

- **Digital culture is intentional:**

The most critical part of digital transformation is not technology. Changes in technology and business practices would be easier to implement if organizations could get their culture right. While the characteristics of an effective digital culture are simple and clear, it is difficult to implement them. Yet organizations are successful in building agile, collaborative, bold and exploratory cultures. How are they doing it? This leads to an important point about digital culture: that it is intentional. Culture is an intentional part of many digitally maturing organizations' efforts.²

4. Nurture a transformative digital culture in the workplace:

As technology enables things such as automation, artificial intelligence, big data, and the internet of things, a skills gap is emerging across the industry. Recruiting new candidates to fill those gaps is a challenge in and of itself, but it's how companies accept and train these new hires that will determine their true value. This is where HR and IT must really collaborate. If a company can find the right applicants with the right skills, it is up to that company to develop those skills in a way that benefits everyone. It is through employee experience that a digitally minded culture can be created.

¹ KANE (G.C) and others: *The Technology Fallacy: How People Are the Real Key to Digital Transformation (Management on the Cutting Edge)*, Copyright material MIT Sloan Management Review, Boston, 2019, pp.157-161.

² KANE (G.C) and others: Op.cit, pp.163-164.

Both IT and HR departments are seeking to shed costly legacy systems and modernize their processes in order to better integrate themselves into the employee bubble. HR teams, in particular, want the ability to customize things such as onboarding processes and training programs, so that when new applicants enter the organization, they can hit the ground running, not just with the digital tools they need, but also with the trust and experience to use them properly.

We live in a time when accessible applicants, especially young ones, are seeking for a better employee experience. Employers could future proof their companies by allowing their workers to be the driving force behind the digital transformation. Microsoft recently conducted a survey that perfectly highlights the conundrum. The findings show that merely implementing new technology on its own does not significantly transform much in terms of thinking, processes, or efficiency, nor does it change the culture or experience of working in a given role.

According to the same report, productivity skyrocketed as employers provided their employees with innovative tools and attempted to foster a digital culture. It all begins with HR and crafting the ideal employee experience. New technologies such as automation can relieve HR teams of many of the dull, repetitive activities, allowing them to be more involved and hands-on in designing the ideal onboarding process. Employee input would be encouraged by such a process from a very early stage, encouraging the use of technology such as apps, inter-social networking, forums, digital assistants, and other tools to build a workforce that's fit for the future.

Furthermore, the approaches used to train new hires can be repurposed and repackaged as training programs for current employees, gradually moving the entire workforce into a digital mindset. This mindset will go beyond just using digital tools, opening up new lines of communication and encouraging new ways of thinking within an otherwise very traditional business environment.¹

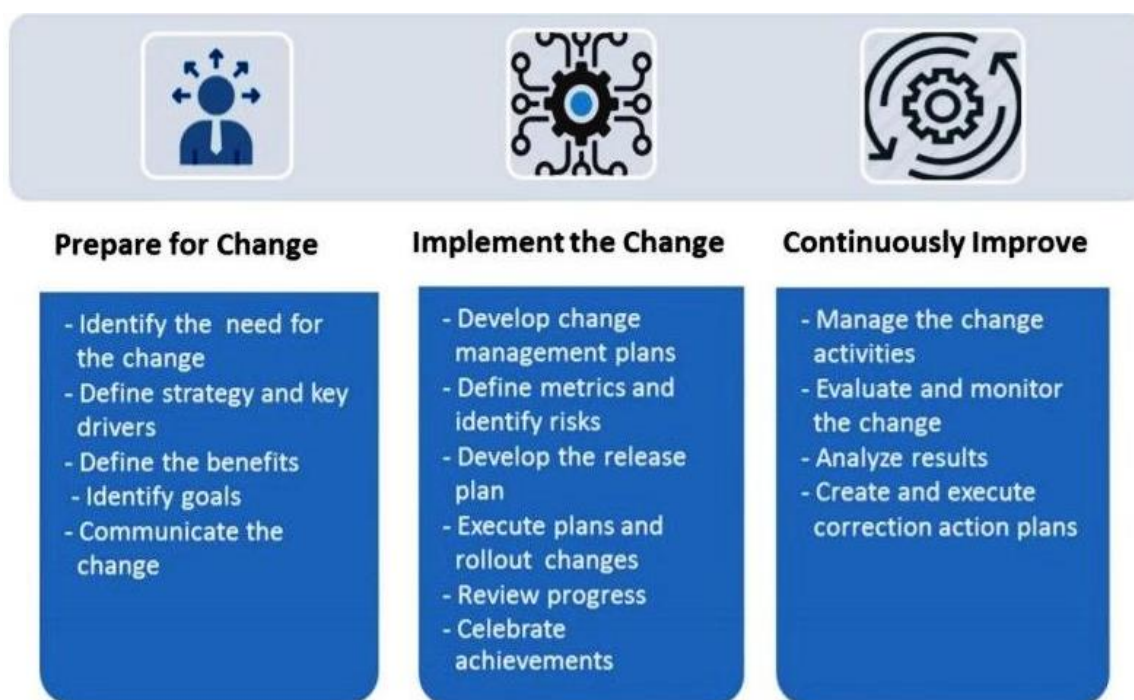
4.1.Change management:

Implementing a leading transformation of the workplace involves the effective management of transition. Effective digital transformation needs companies to build and realign priorities and work with a sense of purpose and urgency. Many companies struggle because leaders

¹ WILLIAMS, (M): « *How to nurture a transformative digital culture in the workplace* », Strategic HR Review, Vol. 19, No. 1, 2020, pp.7-9.

sometimes don't pay enough attention to change management. Successful change management improves the efficiency and acceptance of changes. Ineffective change management also has a detrimental impact on workers and makes it more difficult to achieve the next objective of change. Furthermore, the fear of change management is a major cause of managers' anxiety. There are many models for effective change management. A sample model is shown in Figure N°12.

Figure N°12: Steps for Implementing Change Management



Source: ATTARAN (M), ATTARAN (S) and KIRKLAND (D): «*Technology and organizational change: harnessing the power of digital workplace*», Handbook of Research on Social and Organizational Dynamics in the Digital Era, IGI GLOBAL, 2020, pp. 383-408.

The pace of organizational change is growing, and digital technology advancement is driving improvements in organizational structures and processes. Digital transformation is a never-ending process that necessitates quick responses to changes, challenges, and opportunities in the business world. All of the foundations of digital transformation, including strategy, individuals, procedures, and technology, should be expected to change. When emerging innovations and opportunities for enhancing the digital workplace arise, innovative and effective companies must respond quickly.¹

¹ ATTARAN (M), ATTARAN (S) and KIRKLAND (D): Op.cit.

Section 02: Digital workplace framework

“To win in the marketplace you must first win in the workplace”

- Doug Conant

In the race to stay competitive, putting the employee experience at the heart of the digital workplace is a challenge for employers, but it also provides a practical means of producing better business outcomes. In this section, we will explain the framework of the digital workplace and how it boosts the employee experience.

1. Components of the digital workplace:

Companies adopt digital workplace strategy in order to gain employee productivity, satisfaction and retention as well as talent attraction and communication tools. They must provide workers with the tools they need to collaborate, connect, and communicate with each other in order to achieve these outcomes. To avoid the pitfalls of siloed implementations and disparate ownership, technology groups and investments of the organization must be coordinated. Clear roadmaps should be implemented in order to ensure that the digital workplace provides measurable business value while mitigating risks and adhering to compliance requirements.

The following digital workplace framework helps companies to understand their existing digital workplace and find places for opportunities to promote a new way of doing business by encouraging employees to think holistically about the technologies they use.

The digital workplace includes the following four components:

1.1. Use: collaborate, communicate, and connect:

The ability of workers to do their work by collaborating, communicating, and connecting with each other is at the heart of the digital workplace. The aim is to build fruitful business relationships both inside and outside of natural work groups, as well as to facilitate information sharing within the organization.

1.2. Technology: the digital toolbox:

The digital workplace is enabled by technology. Every company already has a digital workplace toolbox with a variety of tools. The tools required to help the digital workplace will differ according to the industry and business needs. The key is to adopt the right tools for employees to accomplish their work.

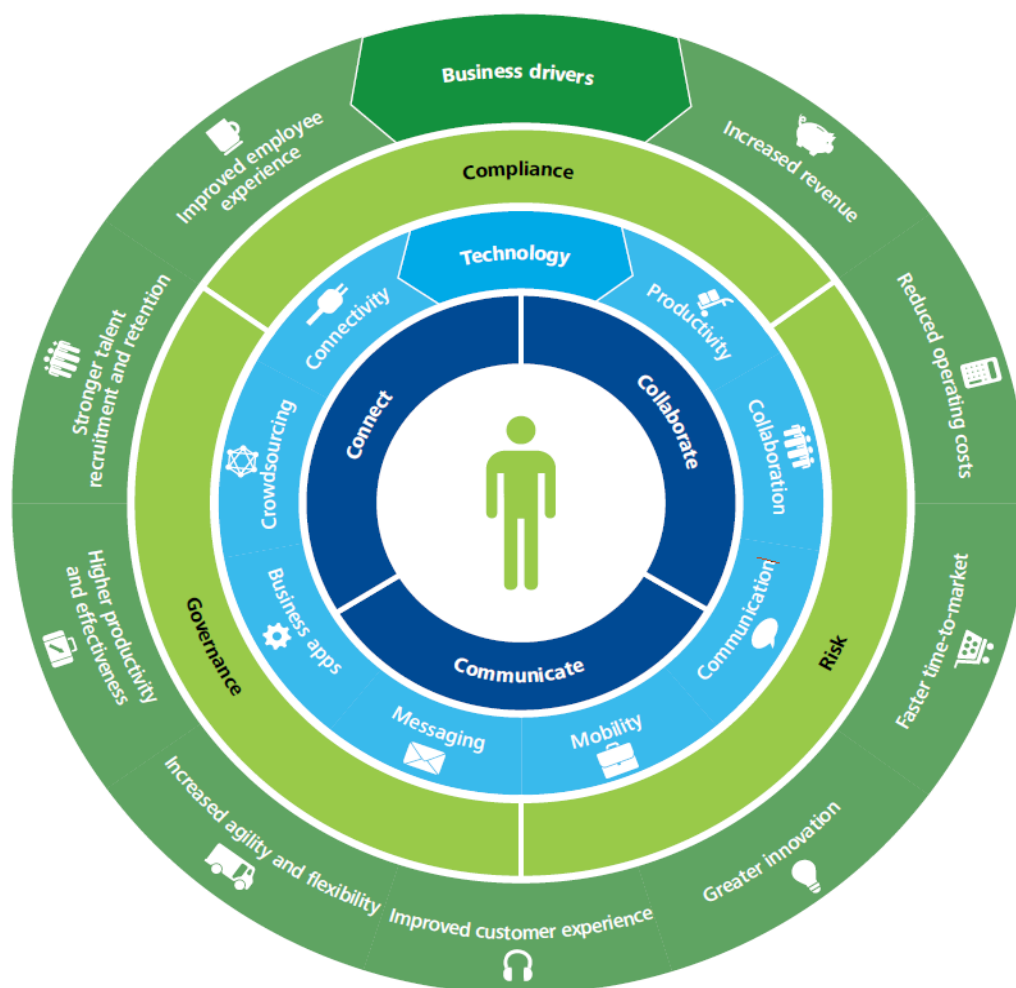
1.3.Control: governance, risk and compliance:

Controls are essential to ensure that technology is used effectively in the digital workplace. This implies that effective governance systems and management processes must be in place to sustain the digital workplace. The flow and use of information must also adhere to the organization's policies and industry regulations.

1.4.Business drivers: measurable business value:

The digital workplace, like any other central initiative, must be driven by business needs. The company's direction should drive the digital workplace's direction in order to provide the required benefits.¹

Figure N°13: Digital workplace framework



Source: Deloitte, *The digital workplace: Think, share, do*, 2014.

¹ Deloitte, *The digital workplace: Think, share, do*, 2014

1.1.1 Use: collaborate, communicate and connect:

1.1.1.1.Collaboration:

The coordination of multiple actors' efforts to achieve a common purpose has always been an important part of human existence. The ability to share knowledge and interact through space and time has resulted in new ways of operating, virtual organizations, and market reorganization.¹ Collaboration is a set of social activities that always begins with people and progressively includes the use of different technologies of collaboration.² Supporting work collaboration and improving employee relationships should be a key component of modern HR strategies for promoting human flourishing.³ Organizations are realizing the importance of technology in allowing workers to supplement face-to-face interaction with interactive, collaborative, and productive forms of sharing. Organizational effectiveness, employee engagement, and organizational performance are all advantages of collaboration technologies.⁴

1.1.1.2.Communication:

At all levels of the organization, communication has become more critical. Since goods and processes change over time, so does the work.⁵ Strong communication remains a critical necessity in the modern workplace, both in the office and on the road, it is critical to ensuring that the communications technology and business and collaboration applications that drive today's business run smoothly. Corporate networks must be capable of handling simultaneous voice, video, and data communication both inside and outside the organization's network.⁶

1.1.1.3.Connection:

Effectiveness is no longer guaranteed by self-sufficiency. Employees need tools that enable them to connect across departments, exploit intellectual property, and learn from one another. The modern workspace achieves these objectives by promoting a greater sense of workplace culture and community.⁷

¹ RIEMER, (K) and SCHELLHAMMER (S): « *Collaboration digital age: Diverse, Relevant and Challenging* », Collaboration in the digital age, Springer, Cham, 2019, pp.1-12.

² RIEMER, (K) and SCHELLHAMMER (S): Op.cit.

³ NAIM, (M.F) and BULINSKA-STANGRECKA (H): « *Down the rabbit hole: Social media, workplace collaboration, millennial psychological need satisfaction and affective commitment in industry 4.0* », Thriving in digital workspaces, Springer, Cham, 2019, p.253-264.

⁴ Cisco, *the workplace revolution*, 2016.

⁵ SCHNEIDER, (M): « *Digitalization of production, human capital, and organizational capital* », the impact of digitalization in the workplace, Springer, Cham, 2018, p.39-52.

⁶ Strategy&, *designing the digital workplace: connectivity, communication, collaboration*, 2013.

⁷ Deloitte, *the digital workplace: think, share, do*, 2014.

1.2.1. Technology is the digital workplace toolbox:

The digital workplace, as its name indicates, is enabled by digital technologies. Every company already has a digital workplace that adopts different tools and technologies, and these differ based on the industry and business needs, so it's critical to adopt the right ones. Organizations are increasingly turning to digital media and social technology applications such as blogs, wikis, and social networks to improve employee connectivity and collaboration while also encouraging information sharing. Furthermore, mobile technology is commonly used by companies, and it has the potential to make things simpler and more efficient in the workplace. Mobile technology encompasses applications and digital devices such as smartphones, tablets, and laptops.

Cloud computing is another emerging innovative technology that is influencing the workplace and the way in which workers accomplish their tasks, and it is regarded as an essential component of the digital workplace. Cloud computing is an innovative way to boost business value and workplace productivity. The use of this technology necessitates Internet connectivity, which has not been a problem lately. Organizations that use cloud computing in their business divisions report benefits such as enhanced business unit collaboration and customer service, as well as increased agility.

Other innovations, such as data analytics, are now serving as strategic tools for delivering business insights that were previously difficult to obtain. Analytics is the practice of extracting insights from data in order to make better decisions based on facts. Big data analytics is being used to improve operational performance.

Finally, the usage of Internet of Things technology within companies is rapidly evolving. IoT technology can be used in digital workplaces to determine employee locations, providing employers with insight into which spaces are in use and assisting them in scheduling activities at times that are the least disruptive to their workers. The Internet of People (IoP) is the second wave of the development of the Internet. It uses a PC, tablet or smartphone and runs an app that connects to a remote server to do something. The use of such technology in the workplace would lead to the digitization of the workplace and have a direct effect on how employees perform their tasks. For instance, connected products and devices can be controlled remotely. Employee safety is improved by remote control of products, and the number of employees required can be reduced.¹

¹ HADDUD, (A) and MCALLEN (D): Op.cit.

Table N°02: Digital workplace technologies

Software tools	Service provided	Digital workplace solutions
Messaging	Provides to employees a fast way to communicate with each other	<ul style="list-style-type: none"> • E-mail • Instant messaging • Micro Blogging • Mobile messaging
Productivity	Allows knowledge employees to get their jobs done efficiently	<ul style="list-style-type: none"> • Word processors • Spreadsheet software • Presentation Software • Calculator • Mid mapping software
Collaboration	Enable employees to work with each other and with partners effectively	<ul style="list-style-type: none"> • Team rooms • online meeting • Communities • Wikis • Web conferencing, mobile video conferencing • collaborative cloud
Communication	Supports internal publishing and knowledge exchange	<ul style="list-style-type: none"> • Portals/intranet • Blogs • Personalized Homepage
Business applications	Enable workers to use online self-service applications	<ul style="list-style-type: none"> • Expense claims • HR systems • ERP • CRM
Crowd sourcing	Allows a company to collect employee suggestions, inputs, and opinions.	<ul style="list-style-type: none"> • Ideation platform • Polling • Survey • Forums
Connectivity	Helps locate experts and colleagues across the company	<ul style="list-style-type: none"> • Employee directory • Organization chart • Rich profile
Mobility	Allows tools to be used outside of the office or workplace	<ul style="list-style-type: none"> • PC/laptop • Mobile/smart phone • Home office • Remote scanners • BYOD

Source: Elaborated by ourselves, based on a Deloitte report: *The digital workplace: Think, share, do*, 2014.

- **Other technologies:**

Digital assistants: are artificial intelligence-driven interfaces, that assist users in completing tasks using natural language conversations rather than searching for and wading through different applications and websites.¹ Gartner expects that by 2025, half of knowledge employees will use a virtual assistant on a daily basis, up from 2% in 2019.²

Augmented reality (AR)/virtual reality (VR) support: AR/VR technologies can be used to train employees. Immersive training simulations are provided by AR/VR technologies, which can be used for compliance, regulatory, safety, security training and on-the-job training.³

Gamification: Using gaming principles such as scores, points, badges, levels, and instant recognition to increase employee engagement and provide incentives to promote contribution.

Micro-learning: Smaller learning units for specialized skills should be provided by companies to allow employees to learn at their own pace. E-learning tools should deliver the flexibility to learn from anywhere on any device.⁴

1.3.1. Control: governance, risk and compliance:

This part discusses control as a tool for organizations to manage, control, and ensure that the digital workplace's adoption is in line with internal and external standards. Organizational standards, policies, and procedures can serve as internal standards, while government regulations can serve as external standards.

1.3.1.1. Governance:

Companies require IT governance as part of the digital workplace's introduction as an innovation. IT governance assists organizations in ensuring that their use of technology is reliable, efficient, and meets their objectives. IT governance allows a company to address cultural issues along with the digital workplace and evaluate IT and business efficiency. As an IT product, the digital workplace necessitates an enterprise-wide focus. When introducing the digital workplace, the organization must be able to address business and strategic issues.⁵ The best way to ensure governance adherence is to plan for these five levers:

Policy: guidelines and standards.

¹ Oracle, *oracle cloud using oracle digital assistant*, 2021.

² https://blogs.gartner.com/anthony_bradley/2020/08/10/brace-yourself-for-an-explosion-of-virtual-assistants/ (published on August 10th, 2020 consulted on 23rd, 2021 at 07:15 p.m.).

³ SHIVAKUMAR, (S): *build a next-generation digital workplace transform legacy intranets to employee experience platforms*, Apress, New York, 2020, p.119.

⁴ Ibid., p.124.

⁵ LESTARINI (D), RAFLESIA (S) and SURENDRO (K): « *a conceptual framework of engaged digital workplace diffusion* », 9th International Conference on Telecommunication Systems Services and Applications (TSSA), 2015, pp. 1-5.

Communication and training: provide education and knowledge of how to do things correctly.

Constraints: Setups that prevent certain acts, like administrator rights.

Monitoring: entails conducting checks to ensure that governance is being followed.

Steering: a body that determines how governance should be implemented and how it should be interpreted.¹

1.3.1.2.Risk:

Every project has risks, and if they are left unaddressed and ignored, they will become seeds of organizational failure. Because digital workplace diffusion is a large project with a high cost, risk management must be implemented to assist the organization in identifying, monitoring, prioritizing, and minimizing risk, as well as formulating guidelines, strategies, and policies, and, most importantly, providing a risk solution using technology, human, and organizational resources.²

On the other hand, security is a critical success factor in the digital workplace. It is essential to ensure that the appropriate security requirements are implemented. Identification, authentication, and authorization are all security features that should be implemented.

- User identification: is the method of verifying the existence of the user ID entered.
- Authorization: or the process of granting authenticated users access to the information they have requested.
- Authentication: or the process of verifying a user's stated identity by comparing given credentials to registered credentials.³

1.3.1.3.Compliance:

The digital workplace's implementation and operation must adhere to the policies and regulations of the company in which it is applied. Organizations must specify all applicable rules and regulations, such as privacy laws, when they decide to use a digital workplace. Following that, certain rules and regulations, as well as the company's strategy, will serve as guidance for developers as they develop the digital workplace. To avoid misuse of the digital workplace, companies must monitor employee compliance with company policies and regulations during the operation of the digital workplace.⁴

¹ <https://www.cmswire.com/digital-workplace/5-levers-of-digital-workplace-governance/> (published on September 27th, 2017 consulted on May 24th, 2021 at 11:16 a.m.).

² LESTARINI (D), RAFLESIA (S) and SURENDRO (K): Op.cit.

³ SHIVAKUMAR, (S): Op.cit, pp. 265-266.

⁴ LESTARINI (D), RAFLESIA (S) and SURENDRO (K): Op.cit.

1.4.1. Business drivers: measurable business value:

The digital workplace empowers the employees to lead their efforts from the bottom up, create communities of interest, drive knowledge management, and collaborate in a meaningful way, and provide measurable business value by connecting them outside the boundaries of their geographies or departments. The digital workplace must solve current challenges and provide business value to realize these benefits. Employees must understand what benefits they will get. Additionally to the benefits mentioned in chapter one, section two, namely (cost optimization, productivity, increased revenue, accelerating innovation), there are other benefits:

Accelerate time-to-market: Provide tools to help research, build, test, and offer new products and services faster, such as remote scanners that enable you to fulfill orders remotely.

Enhance the customer experience: by allowing employees to find information more quickly and serve customers more effectively.

Increase agility and flexibility: include tools that reflect employee behavior and imitate organizational and business changes.

Increase employee satisfaction: by implementing simple tools that can be used both inside and outside the firewall.

Improve talent attraction and retention: by creating a brand with exceptional workplaces.

Improve employee experience: by offering workers the right tools at the right time to get their job done.¹

2. The digital workplace boosts the employee experience:

Since people are today's most important competitive differentiator, companies must create work environments in which people want to be. Focusing on enhancing the employee experience is one way to do this. Many claim that the employee experience is just as important as the customer experience, since happy employees often lead to happy customers.² A key component of a digital workplace is providing an excellent employee experience. In terms of service delivery, execution, and product design, an involved, innovative, and productive workforce outperforms the competition. According to Ms. Rozwell, any organizational redesign should strive to improve employee engagement in order to build an

¹ Deloitte, *the digital workplace: think, share, do*, 2014.

² MARGOL, (E.G): *microlearning to boost the employee experience*, ATD press, Alexandria, 2017, pp.1-2.

environment that will make them more productive and better relate them to the business's outcomes.¹

It is an opportunity to use technology to improve the employee experience, facilitate connections, and promote data-driven decision making throughout the company. It is also an opportunity for companies to use cognitive technology to harness their workforce's talent.² In sum, employees are the most critical component of the digital workplace, supported by technology and a qualified management team that can coordinate people, technology, and processes.³

As a result, EX and digital transformation are two concepts that are changing workplaces at an increasing rate. One of the outcomes of introducing digital transformation in workplaces is the digital employee experience (DEX), which has altered the business world by moving businesses' objectives from focusing primarily on the demands of managers to concentrating on all employees and their workplace experiences. DEX has generated a revolution that has the potential to set future competitive limits in the corporate world as well as ensure productivity and survival within businesses.⁴ DEX is the total of an employee's digital interactions with his or her employer.⁵ The sophisticated digital experiences that today's employees enjoy in their personal lives have raised the bar for businesses to reach, but the potential business advantages may well deserve effort.⁶

¹ <https://www.gartner.com/en/newsroom/press-releases/2017-08-22-gartner-highlights-eight-critical-components-of-a-digital-workplace> (published on August 22nd, 2017 consulted on May 25th, 2021 at 10: 32 p.m.).

² Forbes Insights, *the digital workplace in the cognitive era*, 2016.

³ BAKAR (N.A.A), YA'ACOB (S) and HASSAN (N.H): « *digital workplace model for research university publication collaboration* », International journal of human and technology interaction (IJHaTI), Vol.2, No.2, 2018, pp.91-102.

⁴ GEIDAR, (Y) and SHAMIZANJANI (M): « *Conceptualizing the digital employee experience* », Strategic HR Review, Vol.19, No.3, 2020, pp.131-135.

⁵ PRAJAPATI, (G) and PANDEY (S): « *Enhancing Employee Experience during Covid-19: A Qualitative Study on Investment Banks* », International Journal of Modern Agriculture, Vol 9, No.3, 2020, pp.1711-1734.

⁶ MAZOR (A) and others: « *The digital workforce experience: Getting technology to work at work* », Deloitte Review, 2019, pp.10-20.

Section 03: Digital workplace in the era of Covid-19

The coronavirus outbreak hitting the world in early 2020 has highlighted the importance of the digital workplace. The use of digital technologies has clearly increased. The ability to work from home (WFH) is a key factor in determining the economic consequences of social distancing. Focusing on the digital employee experience enables businesses to remain productive and thrive even during a crisis.

1. The impact of Covid-19:

The damaging impact of COVID-19 has been tragic, varied, far-reaching and unpredictable. It has resulted in serious illness, pain, and, unfortunately a large number of deaths. It has compelled social isolation, segregation, and separation, all of which have resulted in high levels of uncertainty and anxiety in our society. We have sought control of our own personal protection and circumstances, as well as those of our family and friends, as a result of our fear of the disease. Although this has largely been a force for caring and well-being, it has also resulted in a lack of confidence among some members of our society, as well as panicked and selfish behavior. In the commercial world, we've seen a significant toll on employees with rapidly rising unemployment rates, as well as unprecedented disruption, financial loss, and, in some cases, failure and collapse of businesses.

Despite the loss and suffering, we have witnessed incredible innovation, creativity, and, most importantly, resilience, as well as a hope for a better future. We've seen the rapid emergence of new business models, new products and services, new rivals, new ways to shop with contactless home delivery of everything you could imagine, new ways of teaching and learning, and absolutely all online. All of this has combined to change the way we work, live, socialize, and be safe and happy in a world that has become increasingly uncertain and limited.

We've also seen unexpected flexibility and adaptability. Faced with the need to act rapidly and effectively, these attributes not only allowed us to respond and navigate the negative effects of COVID19, but they have also allowed us to understand and use this forced transition as an opportunity to reinvent the way we live and operate. Another positive result of our pandemic response has been the increasing recognition of the value of community, caring, and social interaction. Although many aspects of our everyday lives have shifted to the online and virtual environment, our human need for social connectivity in these difficult moments

has driven us to pursue increased opportunities for COVID-19 safe contact, as well as a return to old ways, and to appreciate being local and being with those you know and trust.

These elements of innovation and creativity, flexibility and adaptability, old ways and being local, renewed confidence, and our imposed new ways of working and doing business, combined with our forced new ways of working and doing business, will be the drivers of a completely new workplace model, one that has the potential to be truly transformative for us as people, for the business world, and for our community as a whole.¹

1.2.Digital workplace from “NICE TO HAVE” to “MUST HAVE”:

COVID-19 is a worldwide health crisis as well as a worldwide economic risk. Employees and employers have faced a variety of unique obstacles as a result of the company and industry shutdowns that were established and imposed throughout the world to stop the virus from spreading.² The COVID-19 crisis has sparked significant and unanticipated changes. A rising number of companies across all industries are speeding up their digital transformation initiatives, not only to make their operations more agile and efficient, but also to respond to major shifts in demand and customer expectations. According to Marie Puybaraud, JLL's global head of corporate research, who specializes in the study of human performance and the human experience at work, COVID-19 has accelerated the change of the workplace by five to ten years.³ On the other hand, Forbes stated in 2020 that the COVID-19 pandemic imposed businesses to shift to digital technologies and platforms in order to sustain operations.⁴

Many companies hurried to implement technology solutions that would allow their employees to work from anywhere. IT leaders have recognized the need to scale up their digital workplace technology stacks in order to ensure their company's long-term viability.

According to the Gartner 2020 Digital Workplace Survey, more C-level executives have stated involvement in the digital workplace since COVID-19, says Matt Cain, Distinguished VP Analyst, Gartner. The pandemic quickly raised many digital workplace technologies from

¹ O'ROURKE (G.A): « *Workplace strategy: a new workplace model* », Asia Pacific Journal of Human Resources, 2021.

² KNIFFIN (K.M) and others: « *COVID-19 and the workplace: Implications, issues, and insights for future research and action* », American Psychologist, Vol. 76, No.1, 2021, pp.63-77.

³ Deloitte, *tech trends 2021*, 2021

⁴ ABHARI (K) and others: « *Co-Governance in Digital Transformation Initiatives: The Roles of Digital Culture and Employee Experience* », Proceedings of the 54th Hawaii International Conference on System Sciences, 2021, pp.5801-5810.

nice-to-have to must-have status, from meeting solution software to enterprise chat platforms to desktop-as-a-service.¹

2. Ensuring Business continuity while teleworking:

2.1. Definition of telework:

Telework, often known as telecommuting, is a relatively recent style of alternate work arrangement that originally emerged in the 1970s.

Telework is defined by the International Labour Organization (ILO) as the use of information and communication technologies (ICTs) such as smart phones, tablets, laptops, and/or desktop computers for work performed outside of the employer's premises. In other terms, telework refers to work that is done using ICTs and takes place outside of the employer's physical location.

Despite the fact that many authors emphasize the definition that relates telework with the idea of working from home, telework simply refers to working outside of the company premises with the help of ICTs, and thus it can occur in many places (home, office, and other locations) using various technologies (e.g., mobile teleworking) and with varying frequency.

The ILO classifies teleworking into three types: regular home-based telework (employees operating from home on a regular basis, using ICT), high mobile telework (employees working in several locations on a regular basis, with a high level of mobility and using ICT), and occasional telework (employees performing in one or more places outside the company's premises only occasionally, using ICT).² We will focus on regular home-based telework as this is the modality used in the prevention of coronavirus disease.

2.2. Work from home in the context of Covid-19:

Covid-19's spread has resulted in the broad adoption of social distance in countries all over the world, whether as a result of government mandates or on a voluntary basis. The ability to work from home (WFH) is a major component in determining the economic effects of social distancing because it typically includes the shutdown of workplaces to reduce interpersonal contact.³

During the early stages of the COVID-19 pandemic, roughly 50% of organizations had more than 80% of their staff working from home, according to a Gartner (2020) survey of 229

¹ <https://www.gartner.com/smarterwithgartner/6-trends-on-the-gartner-hype-cycle-for-the-digital-workplace-2020/> (published on August 24th, 2020 consulted on May 27th, 2021 at 01:16 a.m.)

² BELZUNEGUI-ERASO, (A) and ERRO-GARCES (A): «*Teleworking in the Context of the Covid-19 Crisis*», Sustainability, Vol. 12, No 9, 2020, 3662.

³ GOTTLIEB (C) and others: «*Working from home in developing countries*», European Economic Review, Vol.133, 2021, p.103679.

human resources (HR) departments, with significant long-term growth in remote work expected following the pandemic. Due to the requirement for millions of workers to WFH in response to COVID-19, recent remote work trends have intensified, aided by the advancement of connectivity and communication technologies. While remote work is a broad category that includes work from anywhere (i.e., not necessarily from home), it is well known that some people, such as professionals who need to execute difficult tasks with limited interaction with peers, prefer and are more productive if they WFH.¹

Each action has advantages and disadvantages. The same applies to adopting the work from home concept. While COVID-19 has had a negative influence on business organizations and the economy, it has also forced businesses to look for new ways to run operations through remote connections and the adoption of digital technologies. Many people have benefited from WFH since it keeps employees productive while also allowing them to maintain a work-life balance. However, it is not just about balancing life, it is also about proactively embracing all difficulties in order to perform and produce as the situation requires. Employers and HR personnel/consultants have been compelled to rethink, redesign, and think outside the box in order to bring forth the best practices for running their businesses and sectors as a result of the current COVID-19 situation. The challenge for HR is to continue to develop workers who are innovative, proactive, committed, and dedicated to their organization, while staying positive and productive in this challenging environment.²

2.2.1. Main challenges:

Health and mental well-being: When employees telework, companies have no direct control over occupational health and safety standards. Furthermore, emergency situations disrupt our normal routine, causing additional stress, tension, and discomfort, as well as a lack of exercise and sleep. During forced and sustained telework, the impact of these stressors is amplified.

Work-life balance: Working from home blurs the lines between work and personal life, which can pose health risks. When lockdowns prevent individuals from going out and social life is restricted, the situation becomes even worse. Working schedules may be affected by family responsibilities and shared workspaces.

Technology, data security, and privacy: Using technology for teleworking can increase the risk of cyber-attacks and confidentiality breaches.

¹ KNIFFIN (K.M) and others: Op.cit.

² KAUSHIK, (M) and GULERIA (N): «*The Impact of Pandemic COVID -19 in Workplace*», European Journal of Business and Management, Vol.12, No.15, 2020, pp.9-18.

Skills: Using communication tools necessitates technological skills that not everyone in the workforce may possess at the time a teleworking policy is implemented. Organizations will almost certainly have to prepare for a new way of working. Once the emergency is over and work resumes, different skills will be required depending on the unique sector and context.

Productivity: During full lockdowns, children and babies have remained at home, and multiple family members have teleworked from the same location. As a result, productivity may decrease.

2.2.2. Key measures:

Promote health and safety: Employers can encourage appropriate health and safety measures and offer information to meet the needs of a changing situation. It is critical to increase employee understanding of their responsibilities to look after their own physical and mental health at home.

Build mutual trust and share responsibilities: Open and transparent discussions about expectations, decisions, and deliverables are crucial for building mutual trust and sharing responsibilities with employees.

Change productivity mindset: Productivity should be mission driven and measured by deliverable outcomes instead of working time. Using collaborative online tools, such as shared calendars and public status (online/offline), can help to improve teamwork and increase productivity. Since productivity and well-being are inextricably linked, regular breaks and a healthy lifestyle should be encouraged.

Communicate regularly: Keep employees informed about the emergency situation and how it affects the organization. Discuss business continuity and share ideas and views.

Protect cyber security and privacy: Remote work processes must be secure, especially if employees are teleworking on their own laptops or devices. In order to protect against cyber-attacks, IT tools should have up-to-date virus defenses, secure VPNs, and firewalls. Furthermore, while teleworking, employees should be aware of the continuity of their confidentiality obligations.

Be flexible and reactive: Because circumstances can change rapidly, teleworking policies must be flexible and reviewed on a regular basis to keep up with the changing needs of an emergency situation. Furthermore, organizations should plan for transitional strategies to be implemented once the emergency has passed.¹

¹ International Organization of Employers, *IOE Guidance on teleworking in the times of Covid-19*, 2020.

2.3. The future of teleworking post-COVID-19:

Companies are preparing for the return of their workers to their workplaces, factories, and shops as some countries enter the next phase of managing the COVID-19 pandemic response. Reopening workplaces and the economy, on the other hand, will not be a static process. It may face setbacks due to a second wave of the virus, and, in any case, it will not happen in a single day.

The World Health Organization (WHO) published a clear message in April 2020, emphasizing the dangers of a rapid return to the working environment, warning that the premature lifting of physical distancing measures is likely to result in an uncontrolled reappearance of COVID 19 transmission and an amplified second wave of cases.

The uncertainty about developing and deploying a safe and effective vaccination and the absence of therapeutic options will impede the economic recovery and the return to "normal" for nearly all organizations. Countries are trying to shift in a controlled way from a fast-track scenario to a sustainable, steady, low level or non-transmission situation, and every actor in the working world must contribute to an orderly and well-organized return-to-work process in the short and medium term by adopting prudent new behaviors.

COVID-19's full influence on labor markets has yet to be determined. Telework rates, on the other hand, are likely to remain much higher than they were before the pandemic. Governments and social partners will have to prepare for a variety of situations in which limitations will be raised or eased depending on how the pandemic progresses or recedes in their territory, as well as preparing for teleworking arrangements to be widely adopted again on short notice.

Workers, employers, and governments will have to adjust to a new way of living and working in the upcoming, highly uncertain phase, which will necessitate new behaviors and norms. Most likely, a hybrid or blended type of isolation (teleworking) and deconfinement will be used (i.e., the possibility to use the workplace but with controlled conditions based on physical distancing).

Government-mandated lockdowns and mass teleworking were implemented in many countries during emergencies, and social partners often did not participate in the negotiation or design of teleworking arrangements, except for a number of countries in which such processes are deeply integrated into existing companies at all levels, like Germany and the Nordic countries.

Going forward, it will be necessary to make sure that social partners play a key role in extracting the lessons learned from the first two phases of the initial pandemic response, as well as workers moving from office-based work to teleworking, and applying these lessons to revise existing or implement new teleworking policies.

Even after physical distancing restrictions are lifted, early research and surveys show that a large percentage of workers want to telework more frequently. Furthermore, some employees have realized that their jobs can be done outside of traditional office spaces, and they are now more comfortable using technology. Many leaders who were previously opposed to their teams working from home have learned that it is possible and are now encouraging employees to telework more frequently.

In addition to employers and employees who consider the growth of teleworking modes, customers and clients have become more prepared to accept that the services they demand are given by remote teams or people operating from remote places.

Going forward, private and public sector companies may contemplate having a larger percentage of their workers teleworking beyond the epidemic, and here are some points to consider as they prepare for this potentially "new and better normal":

- ✓ Update or prepare a teleworking and a return-to-work policy based on the experience with the initial COVID-19 plan, taking into consideration employees and management feedback on what functioned well and what can be enhanced, as well as the potential need for investment in the new digital technologies required to drive business remotely on a long-term basis by operating remotely more efficiently.
- ✓ Employees and their representatives must be involved in assessing the lessons learnt from the current stage of the epidemic in terms of how management and employees migrated to teleworking, and then using those experiences to change existing teleworking policies or create new ones.
- ✓ Evaluate the different responsibilities within the company to see if they may be done through teleworking, at least partially, combined with a certain number of days at the worksite of the employer. Change the teleworking policies of the company based on these findings, as well as the individual teleworking plans of employees.
- ✓ Consider making changes to the current teleworking policy to ensure compliance with the terms and conditions of collective bargaining agreements.
- ✓ Continued evaluation of employee experience with teleworking and monitoring their evolving demands by conducting regular employee surveys, interviews, focus groups,

and Q&A sessions to ensure that their voices are incorporated into future teleworking policy design and implementation.

- ✓ Evaluates employees and managers' learning requirements regularly and then develops and provides special training to create skills and trust for new methods of working, such as teleworking.¹
- **Teleworking and continuity:**

In times of risk that prevent employees from doing their working activities at their usual workplace or offices, teleworking practices and policies can play a large and crucial role in any business continuity plan. As a result, telework allows those individuals to execute their work remotely while keeping the company performing. The COVID-19 pandemic can support teleworking policy as a critical component and an effective contingency plan in maintaining and sustaining productivity, employment preservation, and business continuity.²

2.4. Measure employees' productivity when working from home:

Companies are compelled to assess productivity by objective metrics rather than the physical presence of “time in the building”. Well-managed remote teams can be significantly more productive than physically managed workers.

Before determining how to track and measure an employee's performance, an organization must first determine what needs to be measured. It's crucial to select the metrics that have the greatest impact and are the most qualitative.

Performance is best defined by results, and whether an employee meets measurable benchmarks or objectives. Like any purpose, employee performance cannot be reached if no one knows what it is. The key to working well with remote workers necessitates being very clear and detailed about all expectations. It's important to think about how long it'll take to figure out whether or not someone is productive. However, if measurements are taken infrequently, the employer may be unaware of issues that need to be addressed.

The following are five factors to consider when assessing the productivity of remote workers:

- Establish and communicate clear objectives and deadlines in the same manner that employees in the physical workplace do.
- Make plans to boost accountability.
- Analyze critical activities and monitor progress on a time-bound basis.

¹ International Labor Organization, *Teleworking during the COVID-19 pandemic and beyond*, 2020.

² ABULIBDEH, (A): « *Can COVID-19 mitigation measures promote telework practices?* », *Journal of Labor and Society*, Vol.23, No.4, 2020, pp.551-576.

- Assess quality and quantity rather than time spent. Change the metrics to "tasks completed and their quality" rather than "hours spent."
- Track accomplishments.¹

2.5. Adopt the right technology:

Working remotely successfully necessitates the use of the appropriate technologies. The lack of technology was a clear stumbling obstacle for employees who wanted to work from home. Indeed, one of the key reasons why participants were working on-site while being able to work remotely was because the organization did not have the necessary infrastructure, systems to work remotely.

Concurrently, technology is considered to be critical for people working remotely, with 92 percent claiming to have access to the resources (materials, equipment, technology, support services, etc.) they require to accomplish their jobs efficiently. The most significant resources that allowed people to continue to be productive in their work while working remotely were found to be connectivity, IT infrastructure, and communication tools.

Many people may have discovered, as a result of their remote working experience, that digital transformation is no longer something that can be put off, but rather something that requires immediate attention and investment. Employees cannot be told that they can work remotely if their organization's IT architecture and processes prevent them from doing so efficiently. Furthermore, it is not just about providing the equipment, it is also about ensuring that your personnel are digitally capable of fully utilizing the tools offered, which may necessitate upskilling activities.

3. A permanent shift to remote working requires a change in culture:

Create a clear division between work and personal time: Although employees have the ability to stay connected at all times, this does not imply that they should be. Create a culture in which personal time and needs are respected.

A culture of understanding: Working from home may result in more distractions, background noise, and special appearances by children during video calls. There's no need to apologize. It happens to everyone.

One size does not fit all: Working remotely frequently brings additional obligations. Individual needs must be accommodated, hence efforts must be taken to instill a culture of

¹ International Labour Organization, *An employers' guide on working from home in response to the outbreak of COVID-19*, 2020.

flexibility. The need for flexibility for one employee may differ from that of another, but it is equally essential. Keeping in touch with your team is essential for success.

The tone from the top: A cultural change begins with top management leading by example. This applies to all aspects of working remotely, including trusting staff to perform as well as they would in the office, getting offline after work hours, using online tools and ensuring regular communication.

Be true to your values: Promoting strong relationships, fostering empathy and making efforts to consider others' well-being are not limited to the workplace. Encourage a check-in, catch-up, and stay-connected culture, regardless of where you work.

Accountability at the heart of organizational culture: When implementing a new way of working, team members must be transparent. Everyone, regardless of where they work, must be dedicated to and accountable for their results. Ensure that performance management focuses on outcomes and deliverables rather than the physical presence of employees in the workplace.

Make trust the default: Contrary to popular belief, not working in the office implies working less. Change your perspective from believing that people require constant monitoring to believing that people are trustworthy until proof to the contrary arises. A culture of empowerment and autonomy requires trusting relationships.

A culture that accommodates all working practices: Ensure that no one feels alone as many begin to work from the office while others continue to work from home. Any communication should be distributed to all employees, including those who work from home. This may necessitate measures such as providing the ability to join important meetings and events virtually, as well as the use of online communication technologies.¹

4. Remote work as a tool to attract and retain top talent:

Here are some of the most compelling reasons to consider remote work as a tool for attracting and retaining top talent:

Remote work increases employee productivity: People who work remotely have the perception that they are lazy, pajama-clad employees who slack off instead of getting their work done. This isn't the case, according to statistics. Increased productivity and improved focus are the major motivations for 79 percent of remote workers' decisions to work from home. Employees can be productive no matter where they are thanks to remote work. They

¹ PwC, *the COVID-19 remote working experiment*, 2020

can focus on the work in front of them by avoiding frequent workplace distractions (e.g., background noise, interruptions, etc.). Giving employees the freedom to work when and where they are most productively will help them produce greater results for your company.

Remote work boosts employee happiness: Employee happiness and business success are inextricably linked. Aside from traditional benefits like pay and health insurance, many employees value advantages like scheduling and workplace flexibility. The most common reason employees seek to work remotely is to improve their work-life balance. Better focus/productivity and less stress came in second and third place, respectively. Full-time remote workers are 22 percent happier in their jobs than those who never work remotely. Remote employees have more time and energy to balance personal and professional activities since they avoid a long commute and increase their productivity.

Remote work improves employee loyalty and retention: Employee happiness has a significant impact on whether or not they seek out new employment. Employee turnover costs a lot of money. It takes time, money, and resources to recruit and train a replacement for a high-performing employee who quits the organization.

Working from home is a major advantage, and 81 percent of employees say it makes them more likely to recommend their organization to a friend. Offering remote work not only attracts new talent, but it also promotes employee retention and loyalty. Indeed, remote workers are 13 percent more likely than onsite workers to stay in their current position over the next five years.

Remote work is clearly not the future of work, it is the present. Remote work can help companies attract and keep productive employees. Remote work is beneficial not only for employees, but it also helps your company grow.¹

5. Employee Experience is more important than ever during the covid-19 pandemic:

The COVID-19 situation is potentially a pivotal cultural change for some organizations that have recently sought to focus on employee experience as a gateway for obtaining increased employee engagement and productivity.² Organizations that ideally support new ways of working can survive as the response to COVID-19 shifts from a short-term response to a long-term transformation in how and where people work.

¹ <https://www.predictiveindex.com/blog/remote-work-improves-employee-productivity-happiness-retention/> (consulted on June 09th, 2021 at 11:53 p.m.)

² <https://blogs.lse.ac.uk/businessreview/2020/06/24/covid-19-and-the-changing-employee-experience/> (published on June 24th, 2020 consulted May 28th, 2021 at 08:26 p.m.).

The focus on employee experience and digital tools has shifted from attracting and retaining talent to enabling and supporting a completely remote workforce with capabilities and technology that are now considered as a critical mission. To win in the new remote workplace, companies must plan for the whole workplace ecosystem, equip employees, and support important business activities.

Organizations can quickly adapt to the new workplace by developing personas to understand the way people want to work as well as journey maps to identify essential business touchpoints across the employee experience. As shown in the table N°04, organizations must think about all three components of the employee experience and decide what steps they can take.¹

Table N°03: EX components in resetting, recovery and new reality stage

Components of EX	Resetting	Recovery	New reality
Digital and tools	<ul style="list-style-type: none"> - Ensure network/VPN can support remote working. - Assess business critical systems availability and resiliency. - Adjust IT support models. - Ensure employees can perform their job at home (hardware, software). - Validate cyber security capabilities. 	<ul style="list-style-type: none"> - Identify gaps that exist across technology domains and develop options for filling gaps. - Identify areas of AI/Automation enhancement. - Implement upgrades to reliability as needed. - Institute tools for measuring workforce productivity. - Adjust remaining IT operating models. 	<ul style="list-style-type: none"> - Security and resiliency by design. - Implementations at scale. - Develop AI/Automation enhancements - Innovative technology solutions that support a flexible workforce.
Sociocultural	<ul style="list-style-type: none"> - Revisit employee assistance programs (EAP), highlighting available mental health support. - Personalize interactions where 	<ul style="list-style-type: none"> - Identify work habits and behavioral patterns within a population to develop personas and prioritize unique and 	<ul style="list-style-type: none"> - Action the gaps determined during persona needs analysis and journey map pain points. - Customize engagement tactics for those uniquely

¹ KPMG, *workplace transformation in the wake of covid-19*, 2020.

	<p>possible, tuning in to employee engagement (before jumping to the work at hand).</p> <ul style="list-style-type: none"> - Accommodate for varying ways of working preferences with flexible work arrangements / 'online' time. 	<p>emerging needs.</p> <ul style="list-style-type: none"> - Explore associated journey maps to determine where the relationship with the organization is breaking down requiring extra interaction. - Establish mechanisms to capture the voice of the employee to keep a pulse on barriers to engagement. 	<p>impacted by remote work e.g. those in primary child care roles, caregivers, and other segments.</p>
Environmental	<ul style="list-style-type: none"> - Embrace virtual collaboration environments (e.g. Microsoft Teams, Microsoft SharePoint, Confluence, Jira, etc.) - Set remote working standards and expectations for a culture of collaboration 	<ul style="list-style-type: none"> - Enhance leadership capabilities to successfully manage in a remote environment - Develop workplace planning principles that align with the new ways of working 	<ul style="list-style-type: none"> - Adjust the organizational model to support a remote workplace environment - Design a socially-supportive environment to enable an expanded network for a positive motivating effect and sense of belonging

Source: KPMG, *workplace transformation in the wake of covid-19*, 2020.

Companies that emphasize improvement and work to provide a better employee experience will be the ones best placed for success in managing this crisis. While the length and depth of the impact is unsure, one thing that is certain is that organizations will need employees to move forward, redesigning plans, creating new goods and solutions, and driving commercial impact. Employee experience will be a vital component of the company's recovery.¹

6. Performing in a crisis:

According to AMAR and others, they define the COVID-19 crisis as a dress rehearsal. The unexpected and harsh disruption of our human activities will occur again. It might be a pandemic, a natural disaster, or anything else. We have no idea. The only thing we know for certain is that it will happen again. Regardless of the reason, the economic and business

¹ Mercer, *the coronavirus pandemic: a defining moment for employee experience*, 2020.

consequences will be the same. The economy will be completely shut down, and we will need to discover a way to maintain the continuity of governmental action, economic activity, and human interactions. Fortunately, as the response to COVID-19 demonstrated, we already have the tools necessary to meet these obstacles and continue our operations in the face of extreme events. These are digital tools.¹

In comparison to traditional organizations, digitally native businesses have various advantages. The first is that "silos" are no longer present. All information kept everywhere in the organization can be accessed instantaneously and from any location by digital-native firms. Any segregation of information is a security option, instead of a blind spot in a decision maker's vision. The second is the concept of independence. Employees are encouraged to spend their time off at work doing things they enjoy. Autonomy is increased in a digital workplace, especially if work can be completed asynchronously. Depending on personal preferences, people can work early in the morning or late at night. The third is that of horizontality. Traditional hierarchical structures are frequently wasteful, and technology can eliminate several levels, allowing decision-making to improve by an order of magnitude. The fourth is peer evaluation, which is essentially a horizontal performance assessment. The fifth benefit is that the first four benefits work together to empower employees and make them more independent and responsible. These elements, as well as many another benefits contribute to the success of digital-native businesses. Their agile culture is the key to their success. That is what the true digital revolution has produced.

The COVID-19 pandemic has forced more organizations along this path, and the most important long-term influence will be on the culture that this way of working generates, not on the digital technologies that we use, which will evolve again. These new organizational structures create new horizontal links and allow organizations to make decisions more quickly. In times of crisis, speed and agility are what help organizations succeed, and no matter what the future holds, all survivors will need to embrace this agile culture.²

¹ AMAR (H) and others: *Performing in a crisis: Extraordinary results in uncertain times*, Debats Publics, Paris, 1st Edition, 2020, pp.45-46.

² COURTOIS (T) and others: *The post-covid era: towards a business reset*, Debats Publics, Paris, 1st Edition, 2021, pp.26-28.

Conclusion:

From the current chapter, we conclude that organizational culture and driving change are the main issues for a company's success in the digital age. Companies must be adaptable and agile in order to keep pace with the change driven by digital transformation. With the right digital culture in place, companies can create new value and realize better outcomes. On the other hand, communication and collaboration are major priorities of the digital workplace in order to improve the digital employee experience. A successful EX-focused digital workplace strategy strengthens a company's resilience to crises such as Covid-19 through teleworking and promises a higher return on investment.



Chapter Three

Case study: Cisco Algeria

Introduction:

This chapter aims to inform the reader how the research is done. Accordingly, a description of the case study is included. The goal of this chapter is to provide crucial information on the research methods used, and come out with results from the collected data. The data collected will be synthesized and analyzed. Finally, a discussion of the findings is presented.

Section One: presentation of the company “Cisco”

In this section, we will give a presentation about the company at which we spent our internship and conducted our research. This presentation is based on the internal information provided by the company.

1. Cisco Overview:

CISCO SYSTEMS INC. is the worldwide leader in networking for the Internet. The company was founded in 1984 by two computer scientists from Stanford University seeking an easier way to connect different types of computer systems. Cisco Systems shipped its first product in 1986 and is now a multi-national corporation, with over 70,000 employees who work across 356 different offices in 95 countries. Cisco provides the widest range of solutions for data, voice and video transport. Today, Cisco solutions are at the heart of most major networks of private companies, public institutions and telecom operators. Over 80% of the world's information circulates on the Internet thanks to Cisco technologies. Cisco's networking solutions connect people, computing devices and computer networks, allowing people to access or transfer information without regard to differences in time, place or type of computer system.

With its vision and strategy «Internet of Everything» Cisco supports private companies and public institutions and helps them to take advantage of opportunities related to the Internet of Things by providing them with smart networks and powerful software platforms. Cisco sees connecting people, processes, data and objects as a great opportunity for companies and public institutions to innovate and grow while preserving security, privacy and ethical values. For Cisco, at all levels of the organization, the future of trade, countries and citizens is built around the evolution of the Internet and its collaborative uses. Each year, Cisco invests more than \$5 billion in research and development and once again demonstrates its ability to anticipate market transitions and constantly evolve.

If anyone can lay claim to a 'heritage' in an industry as young as global networking, then it is Cisco. Cisco also uses the Internet to run its own business online, from product orders and inventory management through to staff communications and travel expenses. An integral part

of their DNA is creating long-lasting customer partnerships, working together to identify their customers' needs and provide solutions that fuel their success.

1.2 FY20 Financials:

Total cash and investment: \$29.4 billion

Table N°04: FY20 financials

Revenue= \$49.3 billion	
Product revenue	Services revenue
\$36 billion	\$13.3 billion

Source: internal document

1.3 Cisco regional markets:

Cisco conducts its business globally and manage its business by geography. Its business is organized into the following three geographic segments: Americas, Europe, Middle East, and Africa (EMEA), and Asia Pacific, Japan, and China (APJC). Cisco ensures it can meet the unique needs of every market by maintaining its global presence.

59% of its revenue (\$29B in FY20), comes from the Americas, where it is present in 17 countries.

26% of its revenue (\$12.8B in FY20), comes from EMEAR, where it is present in 61 countries.

15% of its revenue (\$7.39B in FY20), comes from APJC, where it is present in 17 countries.

Figure N° 14 : Cisco regional Markets



Source: internal document

1.4. Cisco's policy priorities:

- **Protecting free trade:** Cisco supports policies that open markets for technology products and services, lower prices, increase choice, and promote innovation. Promoting and enforcing trade agreements is important to encouraging innovation and investments that spur economic growth and competitiveness.
- **Promoting investment:** Cisco advocates for national tax policies that promote investment, encourage job creation, and incentivize innovation while also being consistent with existing global approaches to taxation.
- **Investing in people and knowledge:** Cisco supports immigration policies that **promote** innovation by accelerating economic growth, encouraging hiring, and creating a highly skilled workforce. Reforming the immigration system in the U.S. will enable businesses to compete more effectively in the global marketplace.
- **Advancing smart cybersecurity policies:** Effective policies for cybersecurity risk management are foundational to Cisco's efforts to securely connect consumers, businesses, and governments. In an interconnected world, smart policies will protect security in a dynamic threat environment while fueling economic growth and innovation.
- **Securely connecting the future:** Society is becoming more connected, and devices are getting more intelligent. Cisco needs to harness the power of intuitive networks powered by machine learning and artificial intelligence to provide visibility and control over devices that may be unable to protect themselves against attack.
- **Preparing wireless networks for the next generation:** Policies that promote network investment foster networks that can keep pace with rising consumer demand for data. For wireless, governments control access to a key input radio spectrum and therefore must make spectrum available for growth and new technologies.
- **Protecting innovation:** Cisco supports balanced intellectual property rules that incentivize innovation while also reducing the threat of unnecessary and harmful litigation.
- **Preserving an open Internet:** Cisco has always supported an open Internet. Ensuring that regulations are developed in a way that incentivizes network investment is essential to allowing continued innovation and flexibility to develop new business models.

1.5. Cisco's partnership:

Cisco and the Cisco Foundation discover the best ideas to solve social problems, and they help make them a reality by providing funding, technology donations, and expertise. Working through nonprofit partners, they help create technology-based solutions for economic

empowerment, education, critical human needs, and disaster relief, improving lives around the globe.

Figure N°15: Cisco's partnership



Source: internal document

2. Cisco Algeria:

Cisco Algeria was created in 2006, which is a representative office of Cisco in Algeria, having 12 employees, located in El-Mohammadia- Algiers (Algerian business center).

2.1. Cisco's organizational chart:

The organizational chart of Cisco is shown in Figure N°16.

MEA general manager: head of Regional Offices: Middle East, Africa

General Manager: head of the Algeria-Tunisia offices.

Account manager (Algeria):

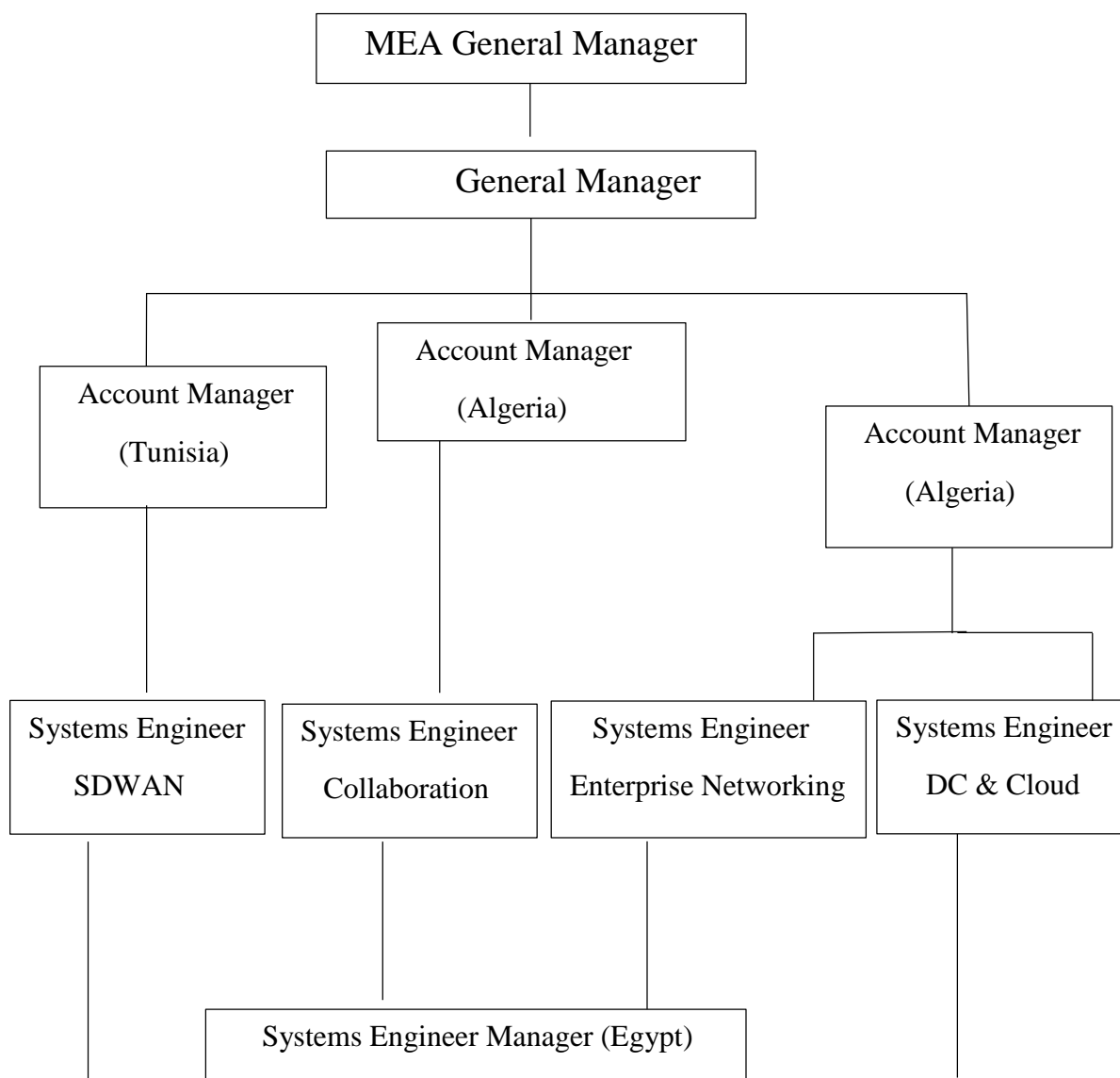
- Responsible for public accounts (government, public banks, and public corporations).
- Responsible for accounts (oil Companies, private banks, private operators, SMEs).

Account manager (Tunisia): Head of customer accounts in Tunisia.

Systems engineer: Responsible for technical solutions for customers.

Systems engineering Manager: Responsible for systems engineers in the Middle East and the African region.

Figure N°16: Cisco Algeria-Tunisia Cluster Organization (ALG-TUN-CLUSTER)



Source: internal document

2.2.Products and services:

Platforms, Applications, Security and Other Products. In addition to their product offerings, they provide a broad range of service offerings, including technical support services and advanced services. Increasingly, they are delivering their technologies through software and services. Their customers include businesses of all sizes, public institutions, governments, and service providers. These customers often look to us as a strategic partner to help them use information technology (IT) to differentiate themselves and drive positive business outcomes.

2.2.1. Infrastructure Platforms:

Infrastructure Platforms consist of their core networking technologies of switching, routing, wireless, and data center products that are designed to work together to deliver networking capabilities and transport and/or store data. These technologies consist of both hardware and software offerings that help their customers build networks, automate, orchestrate, integrate, and digitize data. They believe it is critical for them to continue to deliver continuous value to their customers. They continued to make progress in shifting more of their business to software and subscriptions across their core networking portfolio, and in expanding their software offerings. Their objective is to continue moving to cloud-managed solutions across their enterprise networking portfolio. They continue to expand on their intent-based infrastructure, which focuses on simplicity, automation, and security, allowing enterprises to manage and govern the interactions of users, devices and applications across their IT environments. They started with their Nexus 9000 series of switches for the data center, which along with ACI provide enhancements in security, programmability and performance while lowering operating costs. Their Cisco Catalyst 9000 series of switches were developed for security, mobility, IoT, and the cloud. These switches formed the foundation for their leading enterprise architectures, built on the principles of Cisco DNA. In addition, they now have a unified operating system and policy management platform for their enterprise networking portfolio to drive simplicity and consistency across our customers' networks. Their switching portfolio encompasses campus switching as well as data center switching offerings. Their campus switching offerings provide the foundation for converged data, voice, video, and IoT services. These switches offer enhanced security and reliability and are designed to scale efficiently as their customers grow. Within campus switching are our Catalyst 9000 series of switches that include hardware with embedded software, along with a software subscription referred to as Cisco DNA. Cisco DNA provides automation, analytics and security features and can be centrally monitored, managed, and configured. Their data center switching offerings provide the foundation for mission critical data centers with high availability, scalability, and security across traditional data centers and private and public cloud data centers. We continue to add deeper and broader visibility and analytics across our networks and applications, enabling us to deliver better experiences for their customers. Their routing portfolio interconnects public and private wire line and mobile networks, delivering highly secure and reliable connectivity to campus, data center and branch networks. Their routing solutions are designed to meet the scale, reliability, and security needs of our customers. In fiscal 2020, they launched the Cisco 8000 portfolio, a family of high density,

low power next generation routing platforms focused on their customers' evolution to support 100G and 400G connectivity speeds.

Their Wireless portfolio provides indoor and outdoor wireless coverage designed for seamless roaming use of voice, video, and data applications. These products include wireless access points that are standalone, controller appliance-based, switchconverged, and Meraki cloud-managed offerings. We expanded our capabilities to include network assurance and automation through Cisco DNA and Cisco DNA Spaces location-based services. Their Catalyst and Meraki Wi-Fi 6-based access points are designed for high-density public or private environments to improve speed, performance, and capacity for wireless networking in both homes and enterprises.

Their Data Center portfolio incorporates various technologies and solutions including the Cisco Unified Computing System, our hyperconverged offering, HyperFlex, and software management capabilities which combine computing, networking, and storage infrastructure management and virtualization to deliver agility, simplicity and scale. These products are designed to extend the power and simplicity of unified computing for data-intensive workloads, applications at the edge of the network, and the next generation of distributed application architectures.

2.2.2. Applications:

The Applications product category consists primarily of software-related offerings that utilize the core networking and data center platforms to provide their functions. Their Applications offerings consist of both hardware and software-based solutions, including both software licenses and software-as-a-service. Applications include their collaboration offerings (unified communications, Cisco TelePresence and conferencing) as well as AppDynamics and IoT software offerings.

Their Collaboration strategy is to make communications more effective, comprehensive, and less complex by creating innovative solutions through combining the power of software, hardware, and the network. They offer end-to-end solutions which can be delivered from the cloud, premise or mixed environments, and which integrate voice, video, and messaging on fixed and mobile networks across a wide range of devices/endpoints such as mobile phones, tablets, desktop and laptop computers, video units, and collaboration appliances. Their Cognitive Collaboration integrates AI and machine learning across the Webex portfolio, bringing intelligence and context to help their customers work smarter and increase productivity. Their Webex Cloud Contact Center solution is designed to provide the agility,

flexibility, scalability, security, efficiency and innovation in order to enable better customer experiences for businesses and their customers.

Their analytics solutions seek to help businesses deliver consistently high-quality digital experiences by connecting end user experience and application performance to business outcomes. Their applications monitor, correlate, analyze, and act on application performance and business performance data in real time. This automated, cross-stack intelligence enables developers, IT operations, and business owners to make mission critical and strategic improvements.

They continue to invest in IoT as the number of connected IoT devices continues to grow. Their Control Center Platform enables enterprises to automate the lifecycle of connected devices, including tools designed to automatically and remotely onboard, manage, and monetize their IoT devices.

2.2.3. Security:

The Security product category primarily includes their network security, cloud and email security, identity and access management, advanced threat protection, and unified threat management products. All of these products are part of their integrated cybersecurity architecture that is designed to allow their customers to confront risks by continuously defending against threats and verifying trust, across their environments. Regardless of size or industry, security continues to be a leading priority for their customers as they defend against ongoing ransomware and account breaches that represent risk of compromise and economic loss to their businesses.

They continue to integrate security across their portfolio as they believe their security solutions can help build a foundation of trust between users, devices, and applications, across clouds, networks, and mobile workers. When targeted, their solutions help prevent attacks by continuously detecting and remediating the most advanced threats. In fiscal 2020, they continued to invest in cloud-delivered security and extended their security platform with the launch of SecureX, which is a security platform that brings together the breadth of the Cisco Security portfolio, helping their customers to accelerate responsiveness across the security lifecycle.

- **Other products:**

Their other products category primarily consists of their cloud and system management and emerging technologies products.

2.2.4. Services:

In addition to their product offerings, they provide a broad range of service and support options for their customers. Their overall service and support offerings are combined into one organization, Customer Experience that is responsible for the end-to-end customer experience.

Their support and maintenance services help their customers ensure their products operate efficiently, remain available, and benefit from the most up-to-date system, and application software. These services help customers protect their network investments, manage risk, and minimize downtime for systems running mission-critical applications. A key example is Cisco Smart Services, which leverages the intelligence from the installed base of their products and customer connections to protect and optimize network investment for their customers and partners. They have expanded these offerings from traditional hardware support to software, solutions, and premium support.

They also provide comprehensive advisory services that are focused on responsive, preventive, and consultative support of their technologies for specific networking needs. They are investing in and expanding advisory services in the areas of software, cloud, security, and analytics, which reflects their strategy of selling customer outcomes. They are focused on three priorities including, utilizing technology advisory services to drive higher product and services, assessment and migration services providing the tools, expertise and methodologies to enable their customers to migrate to new technology platforms, and providing optimization services aligned with customers' business expectations.

2.3. Cisco principles:

Cisco principles that guide employees' behaviors and beliefs called **Our People Deal**, it's a deal because culture is a two-way street, a relationship of give and take.

- **Give your best:** Show a desire to be at your best and connect with others to share quickly with whomever needs it. Open your mind to ideas from everywhere and anywhere. And use those ideas to build on the possibilities to pour a little drop of love into our customers' worlds.
- **Take accountability:** Whatever comes your way, understand it and be personally accountable for its success. Assume the answer is “yes” and that you don't need to wait in line for permission. Check the data, but don't let that slow down taking responsibility. And deliver.
- **Give your ego the day off:** It's the best solution our customers need, not the best-protected Cisco turf, so support that solution, whatever the background of the person or team who came up with it. Have the debate and have a backbone. Make your point, then commit to what's been agreed and deliver it with agility and grace.

- **Take difference to heart:** We become bigger as individuals and more powerful as a collective when we respect and value what makes us so special: our unique, personal differences. Inclusion will always beat exclusion.
- **Give something of yourself:** A simple smile or “hi” every day is worth its weight in gold, so don't hide it away. Show care and consideration to your colleagues, our customers, our communities, our partners, and the world we all share. Be worthy of trust. Be an inspiration. Be delightful to everyone even if you don't like them.
- **Take a bold step:** Whatever your position, show leadership and courage when it comes to innovating and disrupting. If it doesn't feel safe, be secure in the knowledge that shooting for the stars will always be a part of who we are. Together we can figure out how to get there, so let's dream big.

Cisco also offers a suite of team development commitments to its employees:

- They assemble diverse interviewer panels and strive to interview a diverse slate of candidates for every position.
- They believe in listening to employees, formally and informally, to identify areas for improvement.
- Employees who regularly respond to surveys and use their collaboration tools are more engaged, and therefore more likely to stay at Cisco.
- Training programs for employees at all career stages allow them to explore new skills and choose their own development paths.
- Learning and development is a big focus area for Cisco ensuring their employees have a strong suite of opportunities at their disposal. They encourage employee to be curious and choose their own path “learning at the edge”.

2.4.Cisco people:

Cisco has been ranked the #1 Best Place to work in the World by Great Place to Work® two years running, because the trust their customers feel for them is also shared by their very own employees. Cisco values most: its people, its technology, and changing the world. Cisco makes a meaningful difference for its people, its customers, and the world around it. They support each other and work together to create shared success that will benefit everyone. Cisco's culture is a specific way of life. They care deeply about a positive experience for all. They are self-aware of themselves and their environment. They feel accountable and empowered to contribute to a culture where everyone thrives and where they intentionally

seek out, learn, understand, and appreciate who and what surrounds them. That's what a Conscious Culture is all about. "Be there with us," is Cisco's motto.

2.5.Key IT trends:

In addition to the acceleration of digital, there are a number of key trends in IT that are informing and shaping their longer-term investment strategy:

- **Cloud experience:** They know that customers are adopting cloud experiences, in some cases it will be a public cloud experience and in some it will be a cloud experience housed in a private data center. There is no question the accelerated move to the cloud is driving demands for cloud-native technologies and cloud-consumption experiences regardless of where services are delivered.
- **Applications are the lifeline:** The increasing need for our interactions to be digital requires new, modern applications. In many cases, they are the primary interface between a customer/citizen/employee and an organization... they are how Cisco consume, interact and operate... and they are increasingly relying on complex, cloud-native architectures to be developed and deployed more rapidly and at scale.
- **Hybrid work:** They know the future of work is hybrid as last year, practically overnight, the majority of the global workforce shifted to remote work. Many of these workers may never need to return to the office, but when those that do or choose to our offices and campuses and be massively transformed to support a hybrid work experience.
- **Cloud security:** This new distributed workforce and distributed applications means that security is moving to the cloud. Security must be deployed everywhere and everything they do must be secured, from the network to the data to the device to the user. Cloud security allows them to do this at scale, with greater speed and efficacy.
- **5G & Wi-Fi 6:** The need for connectivity has never been greater. The transition to 5G and Wi-Fi 6 is reshaping telecommunications infrastructure while unlocking new use cases and experiences for both the enterprise and consumers.
- **Apps/Workloads to Users/Devices:** In an increasingly distributed and hybrid world, apps and workloads are moving closer to users, devices and the data. They are also increasingly delivered and consumed from the distributed Edge, bringing computing at or near the source of the data so applications can be more relevant at the point where the data has value. The edge brings the cloud to wherever it's needed.

Section 02: Methodology of study and survey process

The literature in the previous chapters proves that there is a relationship between employee experience and the digital workplace. We were obliged to review the literature concerning the relationship between the two variables to have a complete and perfect understanding of how this study would go. This section is divided into two parts. The first part will be devoted to the methodological approach of the study through epistemological positioning, and the second will be focused on the investigation methodology, which demonstrates the different steps followed and the tools needed to carry out our investigation.

1. Presentation of the research methodology:

For a better understanding of the analysis of the results obtained, we thought it would be useful to present the methodology used to conduct the field investigation. We determined the research's epistemological position and the questionnaire's elaboration methodology.

1.1.The research's epistemological positioning:

Epistemology is based on a theory of knowledge that emphasizes on the process of acquiring and validating knowledge.¹ The theoretical perspective defines epistemology as "a way of looking at the world and making sense of it." Furthermore, Maynard as noted by Crotty, adds that epistemology is concerned with giving a philosophical foundation for what types of knowledge are feasible and how we may assure that they are both adequate and acceptable.² There are different approaches and branches of epistemology, such as positivism and interpretivism. These are not the only branches in epistemology.

1.1.1. Positivism:

A scientific perspective on knowledge and the world is the core principle of positivism. The data gathering is based on statistics and a huge number of participants. When you take a positivist approach to research, you try to look at the evidence objectively and go forward with a hypothesis and deductions. As a result, positivist research is quantitative and focuses on high degrees of generalizability.

1.1.2. Interpretivism:

This area of epistemology is, in some ways, a response to positivism's objective world, which researchers felt wanting. The interpretivist approach is based on the notion that the researcher is a participant in the study, interprets data, and so can never be completely objective and detached from the study. Interpretivists are concerned in specific, contextualized

¹ TAKAHASHI, (A) and ARAUJO (L): « *Case study research: opening up research opportunities* », RAUSP Management Journal, Vol.55, No.1, 2020, pp.100-111.

² AL-ABABNEH, (M): « *Linking ontology, epistemology and research methodology* », Science & Philosophy, Vol.8, No.1, 2020, pp.75-91.

environments, and they recognize that reality and knowledge are not objective, but rather influenced by the people who are in that environment. Because this philosophical perspective is more subjective and subject to biases than positivist research, it cannot be generalized.¹

Table N°05: Epistemologies with Positive and Interpretivist influence

Positivist paradigm	Interpretivist paradigm
<ul style="list-style-type: none"> • Focus on facts • Look for causality and fundamental laws • Reduce phenomena to simplest elements • Formulate hypotheses and test them • Operationalize concepts so that they can be measured • Take large samples 	<ul style="list-style-type: none"> • Focus on meaning(s) • Try to understand what is happening • Look at the totality of each situation • Develop ideas through induction from the data • Use multiple methods to establish different views of phenomena • Small samples investigated in depth over time

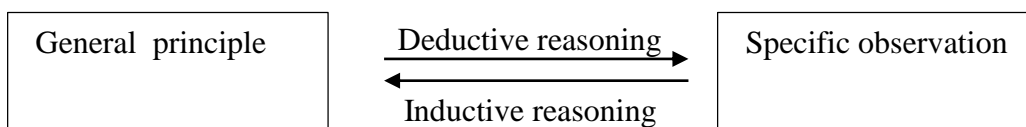
Source: O’GORMAN, (K) and MACLINTOSH (R): « *Mapping Research Methods* », Research Methods for Business and Management: a guide to writing your dissertation, 2015, pp.50-74.

Our research will be focused on quantitative explanation, which puts us in the positivist perspective.

1.2.Types of reasoning (deductive/inductive):

The main difference between deductive and inductive is that: deductive reasoning, or deduction, begins with a general statement, or hypothesis, and examines the possibilities to achieve a specific, logical conclusion, while inductive reasoning is the opposite of deductive reasoning. Inductive reasoning makes broad generalizations from specific observations.² As shown in Figure N°17.

Figure N°17: Difference between deductive and inductive reasoning



Source: Elaborated by ourselves

➤ **The deductive reasoning:** When conducting research that focuses on the development of theory and hypotheses, as well as designing a research strategy to test hypotheses.

¹ <https://www.nicole-brown.co.uk/epistemology/> (consulted on June 22nd, 2021 at 3:55 a.m.)

² <https://www.livescience.com/21569-deduction-vs-induction.html> (published on July 24th, 2020 consulted on June 22nd, 2021 at 03:12 p.m.)

- **The inductive reasoning:** should be used when gathering data and developing a theory as a result of the data analysis.

It's essential to match research philosophies and research approaches, the deductive approach is more aligned with positivist philosophy, while the inductive approach is more aligned with interpretivist philosophy.¹

1.3. Epistemological framework of research:

The purpose of this research is to investigate the relationship there is between digital workplace and employee experience. After developing a conceptual framework and listing the hypotheses in the theory part, this research adopted a positivism paradigm which involves a deductive approach being the most suitable for this kind of study.

2. Presentation of the investigation methodology:

In order to carry out our research that aims to investigate the impact of the digital workplace on employee experience. We have chosen to undertake our investigation with Cisco employees. Based on this target population, we have conducted a quantitative study using a questionnaire.

2.1. Presentation of the quantitative investigation:

The commercial or management research process requires the greatest rigor in the selection of the sample and the method of data collection. We will present in the following the details of the quantitative survey that has been used in this research work.

2.1.1. Steps of the investigation:

Before we begin the presentation of the results of the survey, we present here the different steps we followed to complete it.

2.1.2. Sampling method:

Sampling is a selection of individuals targeted for a survey. Our survey's population is made up of Cisco Algeria employees, of which there are only 12 of them. It was believed that this number was too small to generalize the results of the research, but this is the whole number of Cisco Algeria employees as it's an office representative of the Cisco Company.

In order to carry out our questionnaire, we opted for the random representative sampling method.

¹ AL-ABABNEH, (M): Op.cit.

2.1.3. Elaboration of the questionnaire:

For the elaboration of the questionnaire, we have based ourselves on two pillars:

Establishing the hypotheses, they are indeed the real objectives of the investigation that we expect through the questionnaire.

Particular attention was paid to the choice of questions asked, ensuring clarity and conciseness in order to avoid ambiguity and redundancy, respectively.

The questionnaire of our study is divided into two different parts:

- The first part concerns the data sheet and includes 4 questions. Two types of questions were adopted:
 - Multi-choice questions: in this type, the questioned person has several possible responses, in which one or many responses are permitted. In our questionnaire, this type of questions has only one response permitted.
 - The open –ended questions: these questions represent the advantage of giving the asked person the liberty in its responses and for the investigator the possibility to get maximum of information. In our questionnaire, the questions about gender, age and seniority are multi-choice questions, while the question about employment status is an open-ended question.
- The second part of our questionnaire is divided into three sections representing the three research axes:
 - First section (axis 1): digital workplace attracts and retains top talent, contains 12 questions, (from question 5 to question 16).
 - Second section (axis 2): digital workplace improves collaboration, communication and connection, contains 10 questions, (from question 17 to question 26).
 - Third section (axis 3): telework technology represents an advantage for organizations that have a digital workplace in order to maintain/increase performance during unpredictable crisis such as covid-19, contains 10 questions, (from question 27 to question 36).

We have chosen to use for this part, the Likert scale. It should be noted that this scale is one of the most commonly used in socio-economic research. This scale allows the respondent to give a graded assessment of their level of approval or disapproval of a given statement as shown in the following table.

Table N°06: Assigned coefficient according to response

Answer	Strongly disagree	disagree	Neither agree nor disagree	Agree	Strongly agree
coefficient	1	2	3	4	5

Source: Elaborated by ourselves.

This scale offers the possibility to calculate the average as well as it provides the possibility to calculate the standard deviation between the answers, thus allowing a better analysis of the results.

When analyzing Likert scale responses, we chose “3” as the hypothesized center.

- The average responses between [4 and 5] are high.
- The average responses between [3 and 4] are relatively high.
- The average responses between [2 and 3] are relatively low.
- The average responses between [1 and 2] are low.

2.1.4. Testing of the Questionnaire:

It is a step too often neglected, yet it is recommended. Its objective is to verify the feasibility, the relevance and acceptability of the questionnaire. If problems are identified at this stage, adjustments can be made. What is forgotten or badly formulated is difficult to make up for afterwards. After the completion of the draft of the questionnaire, consultation with the supervisor was done to ensure that the questions were in order, not biased and would collect desired data that was needed for research purposes. Consultation with the supervisor helped to mitigate complexities in the questionnaire and resulted in several corrections in the draft. Another consultation of questionnaire was made with my supervisor at the Cisco Company. The questionnaire as a whole was discussed with him. Following the discussion, some questions were reworded and reasonable changes to the questionnaire were made. After their consultation, we made changes and corrections and then another consultation and corrections, until the questionnaire was properly done.

2.1.5. Dissemination and administration of the questionnaire:

The administration of the questionnaire was carried out online via email. The questionnaire was developed through Google forms, which allows online surveys to be conducted and consolidates the collected data directly into a spreadsheet in Excel. The benefits of this method of sending include the reduction of costs, the high technicality of the software, and the ability to control the investigation through process traceability and the recording of answers in a database. We sent 12 questionnaires to Cisco employees and we received 12 answers.

2.1.6. Statistics tools used:

The processing of the data collected by the questionnaire may be just as important as the survey itself, for reasons of optimizing the interpretation of the results, we used statistical tools selected according to the need of the investigation and the goal we seek to achieve. Using the Statistical Package for Social Sciences (SPSS), we used the following tools:

Linear regression analysis: Since the study aims to examine the degree of association between dependent and independent variables, linear regression analysis is the most suitable analysis to conduct. From this perspective, simple regression analysis is carried out to test the hypotheses of the research using SPSS software for data analysis.

Student t-test: a statistical method used to determine whether the sample mean differs significantly from a known or hypothesized population mean. Therefore, this test allows us to compare the means.

Section 03: Results presentation and data analysis of the conducted survey

In this section, we are going to present the results obtained by processing the questionnaire and interpreting them. Thus, this section is divided into three parts: the first deals with the analysis of questionnaire results by descriptive analysis, the second with statistical analyses to test hypotheses, and, in the third part, we will sort out the main observations that will allow us to make some suggestions and recommendations concerning our research topic.

1. Descriptive analysis:

In order to analyze the characteristics of the respondents, the research opted for a descriptive analysis. The objective was to draw up the profile of the respondent and to summarize the information collected relating to the studied sample.

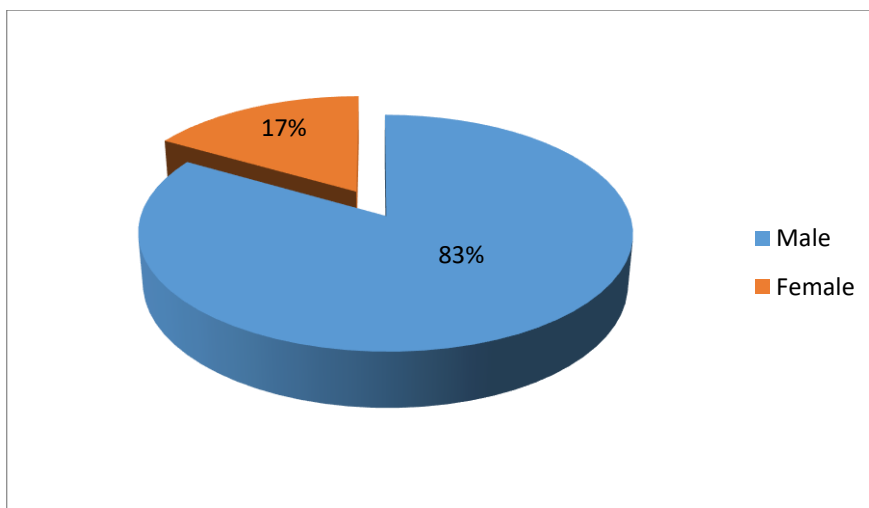
1.1.Respondent’s gender:

Table N°07: Respondent’s gender

Sample survey: Gender	Frequency	Percentage
Male	10	83%
Female	2	17%
Total	12	100%

Source: elaborated by ourselves

Figure N°18: Respondent’s Gender



Source: personal effort, using Excel

Respondents were asked to indicate their gender by placing a tick next to the relevant option provided (male or female). Among 12 responses, 10 respondents (83%) were male and the remaining 2 respondents (17%) were female.

This is explained by the fact that men dominate the technological world (epidemiological and anthropological studies can prove it), implying that the majority of Cisco's employees are males rather than females, since it is an IT company.

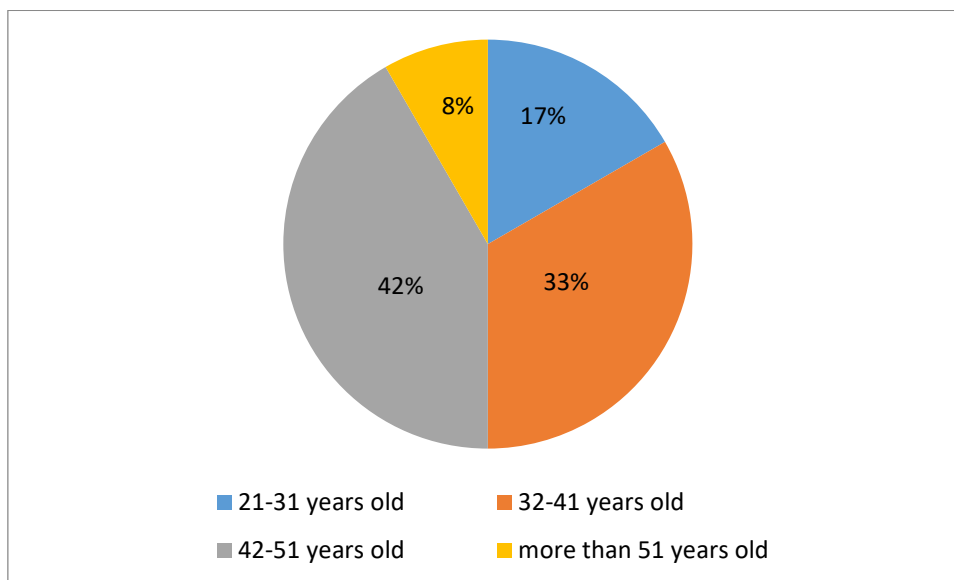
1.2.Respondent’s age:

Table N°08: Respondent’s age

Sample survey: Age	Frequency	Percentage
21-31 years old	2	17%
32-41 years old	4	33%
42-51 years old	5	42%
More than 51 years old	1	8%
Total	12	100%

Source: Elaborated by ourselves

Figure N°19: Respondent’s age



Source: personal effort, using Excel

Participants were asked to tick the age category appropriate to them.

17 % of the respondents (2 participants) were in the 21-31 years old age category, while 4 participants (33%) were between 32 and 41 years old and five participants with a percentage

of 42% were in the 42-51 years old interval. Only one respondent, covering 8%, was over the age of 51 years old.

As most of the participants fell into the (32-41 years old and 42-51 years old) age categories, we conclude that Cisco's workforce is made up of millennials.

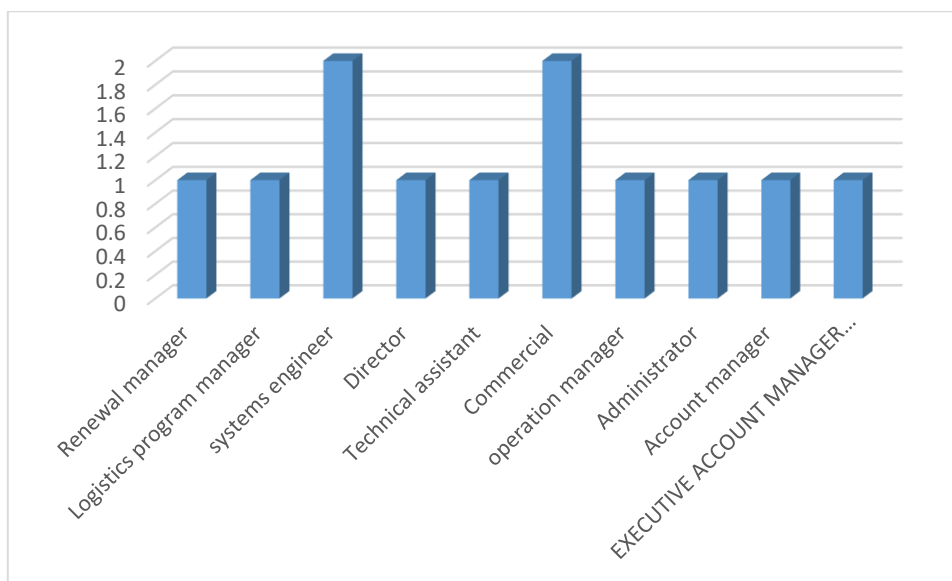
1.3.Respondent's employment status:

Table N°09: Respondent's employment status

Sample survey: position	Frequency
Renewal Manager	1
Logistics program manager	1
Systems engineer	2
Director	1
Technical assistant	1
Commercial	2
Operation manager	1
Administrator	1
Account manager	1
Executive account manager oil & gas / service provide / big industries	1
Total	12

Source: Elaborated by ourselves

Figure N°20: Respondent’s employment status



Source: personal effort, using Excel

Respondents were asked to indicate their employment status. This figure indicates us that there are 10 different positions at Cisco, namely: renewal manager (1 respondent), logistics program manager (1 respondent), Cisco system engineer (2 respondents), director (1 respondent), technical assistant (1 respondent), commercial (2 respondents), operation manager (1 respondent), administration (1 respondent), account manager (1 respondent), executive account manager oil & gas / service provide / big industries (1 respondent).

Based on this Figure, we found that the respondent population represented a diversity of positions.

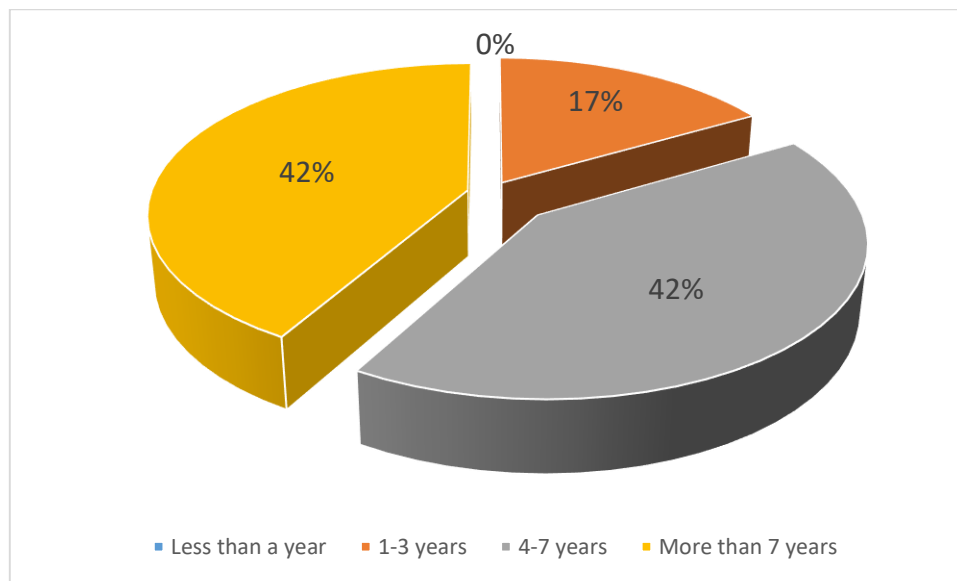
1.4.Respondent’s Seniority:

Table N°10: Respondent’s seniority

Sample survey: seniority	Frequency	Percentage
Less than a year	0	0%
1-3 years	2	17%
4-7 years	5	41%
More than 7 years	5	42%
Total	12	100%

Source: Elaborated by ourselves

Figure N°21: Respondent’s seniority



Source: personal effort using Excel

Participants were asked to tick which category they belong to in terms of seniority.

The majority of participants, at a rate of 42%, have been working at Cisco for more than 7 years, while 41% and 17% have been working at Cisco for 4-7 years and 1-3 years, respectively.

Based on these results, we conclude that employees remain longer and are more loyal to Cisco.

1.5.Relationship between digital workplace and top talent attraction and retention:

Table N°11: Relationship between digital workplace and top talent attraction and retention

	N	Minimum	Maximum	Mean	Standard deviation
Cisco has a strong positive brand perception	12	1	5	4.750	0.452
Workplace technology impacts my decision to join Cisco	12	1	5	4.333	0.651
I feel like i am part of a dynamic team	12	1	5	4.750	0.452
I believe in diversity and inclusion	12	1	5	4.500	0.522

I recommend Cisco to my colleagues as a great place to work	12	1	5	4.583	0.514
Cisco gives me the resources to develop my skills at work	12	1	5	4.666	0.492
I have multiple workspace options (shared spaces, conference and meeting rooms, collaboration spaces, etc.)	12	1	5	4.666	0.651
Cisco's digital environment inspires and energizes me	12	1	5	4.833	0.389
I work in an environment of dignity, respect, fairness and equity	12	1	5	4.666	0.492
I trust my managers/supervisors and they trust me	12	1	5	4.416	0.792
I have meaningful relationships at work	12	1	5	4.583	0.514
Cisco's workspace design increases my engagement	12	1	5	4.583	0.514
Mean				4.611	0.536

Source: personal effort using Excel

The results in this table indicate that the majority of the responses from the employees questioned tend towards the positive, as seen by the general average response (4.611), which falls between [4 and 5] and which represents a high trend of positive responses. We note that the highest average (4,833) corresponds to (Cisco's digital environment inspires and energizes me). The average of standard deviation is 0.536, indicating a low dispersion of responses (the variables are concentrated around the mean).

1.6. Relationship between digital workplace and improvement of collaboration, communication and connection:

Table N°12: Relationship between digital workplace and improvement of collaboration, communication and connection

	N	Minimum	Maximum	Mean	Standard deviation
The main driver of my experience is technology and tools	12	1	5	4.250	0.866
Digital workplace technology supports a better way of doing business	12	1	5	4.666	0.492
The technology i use in the workplace is focused on my needs instead of just on the technical requirements of Cisco.	12	1	5	4.416	0.792
Cisco implements easy-to-use tools that can be used the same way both inside and outside the workplace	12	1	5	4.833	0.389
Digital technology enables me to find the information i need more quickly and serve customers more efficiently	12	1	5	4.833	0.577
Connecting through real-time presence and rich online meetings such as audio, video, and web conferencing technologies can improve collaboration and communication quality	12	1	5	4.916	0.288
Digital solutions prevent time wasted in recreating information that already exists	12	1	5	4.750	0.452
Easily access to the information and resources anytime, anywhere and on any device	12	1	5	4.916	0.288
The same technologies are available to everyone at Cisco	12	1	5	4.916	0.288
Mobility promises seamless connectivity and collaboration	12	1	5	4.666	0.492
Mean				4.716	0.492

Source: personal effort using Excel

The results in this table show that most of the responses from the employees asked tend towards the positive, as seen by the general average response (4.716), which lies between [4 and 5] and demonstrates a high tendency of positive responses.

We note that the highest average (4,916) corresponds to (connecting through real-time presence and rich online meetings such as audio, video, and web conferencing technologies can improve collaboration and communication quality, easily access to information and resources anytime, anywhere and on any device, and the availability of technological tools and resources to all employees).

The average of standard deviation is (0.492), indicating a low dispersion of responses (the variables are concentrated around the mean).

1.7. Telework is an advantage for companies that have a digital workplace in order to maintain/increase performance in Covid-19:

Table N°13: Telework is an advantage for companies that have a digital workplace in order to maintain/increase performance in Covid-19

	N	Minimum	Maximum	Mean	Standard deviation
Covid-19 doesn't impact the way I work	12	1	5	3.583	1.083
Teleworking was part of my habits even before Covid-19	12	1	5	4.250	0.866
There is no difference between working from home and working from the workplace	12	1	5	3.666	1.073
I am more productive while working from home	12	1	5	3.583	0.792
Work from home maintains work-life balance	12	1	5	3.500	1.000
Work From Home preserves my job	12	1	5	3.916	1.083

One of the benefits of teleworking is the availability.	12	1	5	4.250	0.753
There is a change in my work pace during Covid-19	12	1	5	3.833	1.193
Teleworking keeps Cisco performing before, during and after covid-19	12	1	5	4.333	0.651
After Covid-19, there will be a change in the way i work	12	1	5	4.250	0.965
Mean				3.916	0.946

Source: personal effort using Excel

The results in this table show that most of the responses from the employees asked tend towards the relatively positive, as seen by the general average response (3.916), which lies between [3 and 4] and demonstrates a relatively tendency of positive responses. We note that the highest average (4,333) corresponds to (telework keeps Cisco performing before, during and after Covid-19). The average of standard deviation is (0.946), indicating a relatively low dispersion of responses.

2. Test hypotheses through statistical tools:

2.1. Test of the first hypothesis:

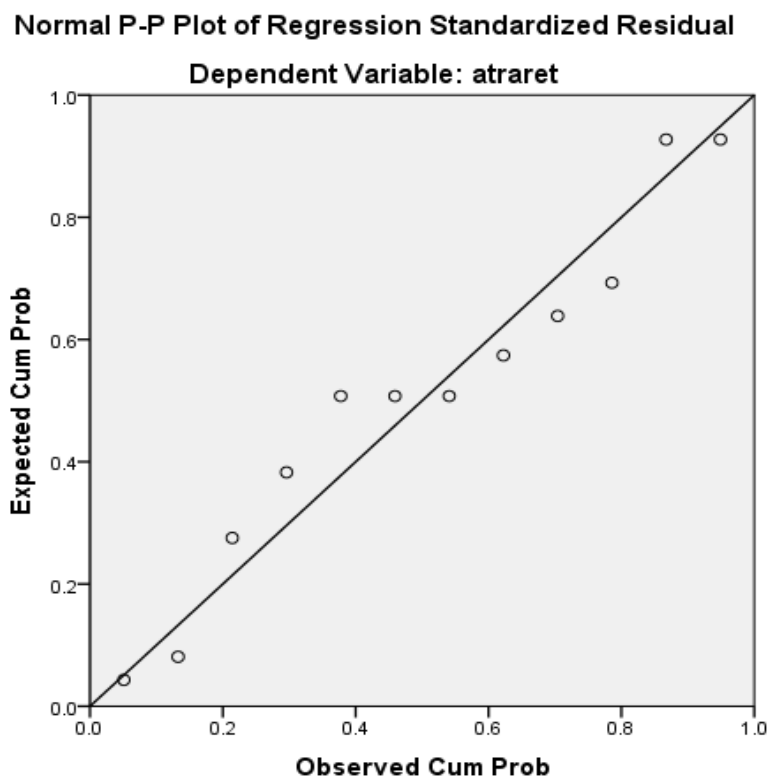
The first hypothesis stipulates that the digital workplace attracts and retains top talent. A simple linear regression analysis is conducted to test this hypothesis.

Before we analyze, we will test our conditions:

- ✓ Our dependent and independent variables are metric.
- ✓ According to the graph, there is a linear relation between the dependent variable and the independent variable, so our model is appropriate.

Our assumptions are validated.

Figure N°22: Normal P.P Plot



Source: personal effort, using SPSS

2.1.1. Interpretation:

Independent variable: Digital workplace.

Dependent variable: Top talent attraction and retention.

Table N°14: coefficients table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.465	1.218		.382	.711
	DIGital	.906	.265	.734	3.420	.007

a. Dependent Variable: atraret

Source: personal effort, using SPSS

$$\text{Atraret (attraction \& retention)} = 0,465 + 0,906 \text{ DIGital (digital workplace)}$$

2.1.1.1. Test for significance:

We compare the calculated value with the critical value.

The calculated value of t (3.420) is significant at 5%.

There is a significant linear relationship between Atraret (attraction & retention) and DIGital (digital workplace).

The sign of the coefficients indicates the direction of the relationship. In this case, talent attraction and retention are positively related to digital workplace. (Standardized beta is positive = 0.734).

2.1.1.2. Determine strength and significance of association:

The strength of association is measured by the coef of determination R².

Based on the model summary table below, and based on the R square value, the model explains 53.9% of the variation of the dependent variable, which means, that the digital workplace (DIGital) explains 53.9% of the variation of talent attraction and retention (atraret).

Table N°15: Model summary

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.734 ^a	.539	.493	.31530
a. Predictors: (Constant), DIGital				
b. Dependent Variable: atraret				

Source: Personal effort using SPSS

$$\text{Atraret (attraction \& retention)} = 0,465 + 0,906 \text{ DIGital (digital workplace)}$$

2.1.1.3. Model usefulness:

Based on the results obtained from ANOVA table below, the calculated F statistic (11.694) is significant at 5%, as a result this model is statistically significant, (Sig=0.007 < 0.05).

Table N°16: ANOVA table

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.163	1	1.163	11.694	.007 ^b
	Residual	.994	10	.099		
	Total	2.157	11			
a. Dependent Variable: atraret						
b. Predictors: (Constant), DIGital						

Source: personal efforts, using SPSS.

Consequently, the first hypothesis: digital workplace attracts and retains top talent is accepted.

2.2. Test of the second hypothesis:

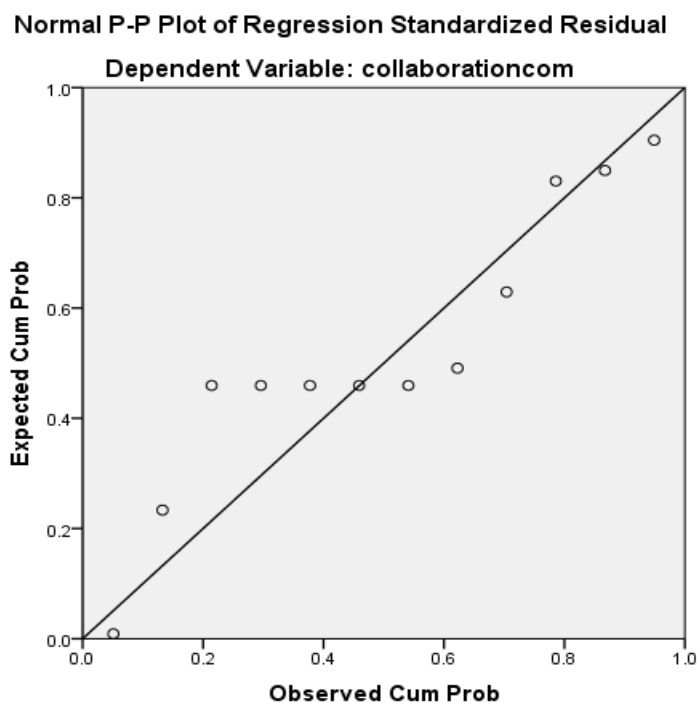
The second hypothesis stipulates that the digital workplace improves collaboration, communication and connection. Similarly to hypothesis 01, a simple linear regression analysis is conducted to test this hypothesis.

Before we analyze, we will test our conditions:

- ✓ Our dependent and independent variables are metric.
- ✓ According to the graph, there is a linear relation between the dependent variable and the independent variable, so our model is appropriate.

Our assumptions are validated.

Figure N°23: Normal P.P Plot



Source: personal effort, using SPSS

2.2.1. Interpretation:

Independent variable: Digital workplace.

Dependent variable: Improvement of collaboration, communication and connection.

Table N°17 : Coefficients table

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.150	.654		4.816	.001
	digitalworkplace	.375	.144	.637	2.612	.026

a. Dependent Variable: collaborationcom

Source: personal effort, using SPSS

Collaborationcom (collaboration, communication and connection) = 3.150 + 0,375 digitalworkplace.

2.2.1.1. Test for significance:

We compare the calculated value with the critical value.

The calculated value of t (2.612) is significant at 5%.

There is a significant linear relationship between Collaborationcom (collaboration, communication and connection) and digitalworkplace.

The sign of the coefficients indicates the direction of the relationship. In this case, collaboration, communication and connection are positively related to digital workplace. (Standardized beta is positive = 0.637).

2.2.1.2.Determine strength and significance of association:

Table N°18: Model summary

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.637 ^a	.406	.346	.26620
a. Predictors: (Constant), digitalworkplace				
b. Dependent Variable: collaborationcom				

Source: Personal effort using SPSS

The strength of association is measured by the coef of determination R².

Based on the model summary table above, and based on the R square value, the variation in collaboration, communication and connection is accounted by 40.6% of variation in digital workplace.

2.2.1.3.Model usefulness:

Table N°19: ANOVA table

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.483	1	.483	6.823	.026 ^b
	Residual	.709	10	.071		
	Total	1.192	11			
a. Dependent Variable: collaborationcom						
b. Predictors: (Constant), digitalworkplace						

Source: personal efforts using SPSS

Based on the results obtained from ANOVA table above, the calculated F statistic (6.823) is significant at 5%, therefore this model is statistically significant. (Sig=0.026 is less than 0.05).

Consequently, the second hypothesis: digital workplace improves collaboration, communication and connection is accepted.

2.3. Test of third hypothesis:

The third hypothesis stipulates that telework technology represents an advantage for organizations that have a digital workplace in order to maintain/increase performance during an unpredictable crisis such as covid-19. In order to test this hypothesis, we used Student t-test.

Table N°20: One-sample test

One-Sample Test						
	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
teleworktech	5.493	11	.000	.91667	.5493	1.2840

Source: personal effort, using SPSS.

Test of student value (5.493) is significant at 5%, because (Sig=0.000 < 0.005).

As a result, the third hypothesis is accepted

3. Research Synthesis:

The digital employee experience has become a buzzword that both researchers and practitioners are interested in, so we focused our research on how the digital workplace impacts the employee experience. To achieve this goal, we conducted quantitative research using a questionnaire that we distributed to collect data.

The interpretation of the results is divided into two parts. The first deals with the synthesis of the survey results using descriptive methods (mean, type of deviation, etc.), while the second using statistical analysis.

➤ **Summary and interpretation of the results of the analysis by descriptive analysis:**

Through the results obtained by descriptive analysis concerning our first research axis, namely, the digital workplace attracts and retains top talent, we find that employees are positive about the items we have proposed. They consider that the digital workplace attracts and retains them since it inspires and energizes them. On the other hand, we observed that the majority of employees have been working at Cisco for more than four years, and this confirms that they are committed and loyal to the company. Therefore, our first hypothesis is accepted.

Concerning our second research axis, namely, the digital workplace improves collaboration, communication and connection, we find that employees are positive about the items we have proposed. They consider that the digital workplace has a positive impact on how they collaborate, communicate and connect, since connecting through real-time presence and rich online meetings such as audio, video, and web conferencing technologies can improve their collaboration and communication quality as well as the availability of the same technologies to everyone at the company, along with easy access to the information and resources they need anytime, anywhere and on any device. As a result, our second hypothesis is accepted.

Concerning our third research axis, telework technology represents an advantage for organizations with a digital workplace to maintain/increase performance during crises such as Covid-19. We find that employees are relatively positive about the items we have proposed. They consider that teleworking, which is one of the digital workplace tools (our research is based on WFH as this is the modality used in the prevention of coronavirus), increases their availability and makes them more productive. Thus, the main advantage of the digital workplace is that a crisis such as Covid-19 doesn't impact the way employees work, since they used to use telework technology even before the crisis. Telework technology keeps Cisco performing before, during and after Covid-19. As a result, our third hypothesis is accepted.

➤ **Summary and interpretation of the results of the analysis by simple linear regression and t-student test:**

We chose to use statistical methods to better define the scope of our research and to better exploit the results of our survey. This allows us to provide a more detailed analysis and thus refine our results.

For the first research axis, we used simple regression linear to test the relationship between the digital workplace and top talent attraction and retention. According to the results obtained, we have found that the digital workplace and top talent attraction and retention are inextricably linked and have a positive relationship (because the standardized beta is positive). As a result, companies who have a digital workplace retain talent by providing them with the right digital technologies in the work environment in order to facilitate the way they operate, which offers them a memorable experience. Our first hypothesis is validated.

Similarly to the first research axis, we used simple regression linear for the second research axis to test the relationship between the digital workplace and the improvement of collaboration communication and connection. According to the results obtained, we have found that the digital workplace and the improvement of collaboration, communication and connection go hand in hand and have a significant relationship (because the standardized beta

is positive). Therefore, digital technologies enable employees to collaborate, communicate and connect in effective ways anytime, anywhere and on any device, which improves their experience. Our second hypothesis is validated.

For the third research axis, we used the student-T test to determine whether teleworking represents an advantage for companies that have a digital workplace or not in order to maintain/increase performance during unpredictable crises such as Covid-19. According to the results obtained, we have found that telework is an advantage for digital companies in Covid-19 and maintains/increases their performance (because test of student value (5.493) is significant at 5%). Which confirms our third hypothesis.

➤ The following table summarizes the hypotheses' confirmation or rejection:

Table N°21: Summary of the hypotheses' confirmation or rejection

	Hypotheses	Validation
H1	Digital workplace attracts and retains top talent	Validated
H2	Digital workplace improves collaboration, communication and connection	Validated
H3	Telework technology represents an advantage for companies that have digital workplace to maintain/increase performance during Covid-19	Validated

Source: elaborated by ourselves

4. Limitations and perspectives:

The main limitation of this research is the number of respondents on the questionnaire. In future research, we recommend replicating this research with a large number of participants. Thus, future studies should also focus on analyzing other variables that might significantly shape the digital employee experience.

Conclusion:

In order to carry out our research that aims to study the impact of the digital workplace on employee experience, we have conducted a survey at Cisco Company. This survey has allowed us, using a questionnaire, to answer our main questions and to approve or disapprove our hypotheses using descriptive and statistical methods. From the analysis that we made, we understand that the digital workplace transforms the employee experience in a positive way, which approve our hypotheses.



General conclusion

The purpose of our study was to investigate the impact of the digital workplace on employee experience. The theoretical framework covered in this research allows us to have a better understanding of the digital workplace and employee experience. It aims to examine the existence of the relationship between the digital workplace and employee experience.

From the first chapter, we conclude that brands who want to boost their CX and increase their ROI should start by focusing on providing the best employee experience possible. Companies must better consider each employee's needs, wants, and emotions, rather than the traditional "transactional" HR approach. Furthermore, we conclude that the digital workplace is a digital workspace that makes employees work easily through digital technologies. The digital workplace should be as efficient as possible in fulfilling all of the employees' needs. By implementing a digital workplace, organizations will improve their ability to hire, grow, and retain knowledge employees with the right attitudes, qualities, and skills.

From the second chapter, we conclude that digital culture is more important than technology itself, and that employees' resistance to change is the main challenge to introducing the digital technologies in the workplace. Moreover, we conclude from this chapter that the ability of workers to do their work by collaborating, communicating, and connecting with each other is the core of the digital workplace. It aims to build a fruitful experience for the workforce by facilitating information sharing and increasing mobility. Finally, this chapter shows us that telework (work from home) is an effective tool of digital workplace in a time of crisis, in order to maintain productivity and employee wellbeing, enable work-life balance and enhance the employee experience.

The third chapter includes a critical review and examination of the impact of the digital workplace on employee experience. We were able to conduct our practical study at Cisco Algeria, using a questionnaire destined to its employees.

Since the results of our study were previously presented and synthesized at the end of the third chapter, we aim to reformulate those results to answer the sub questions from our general introduction and to confirm the validity of the hypotheses.

The first hypothesis stipulates that the digital workplace attracts and retains top talent. According to this study, this hypothesis has been confirmed. The findings indicate that there is a positive relationship between the digital workplace and talent attraction and retention. In other words, companies that implement a digital workplace encourage their employees to stay longer and remain loyal to the company.

General conclusion |

Our second hypothesis states that the digital workplace improves collaboration, communication and connections. According to the current study, this hypothesis has been confirmed and could very well be the answer to the second sub question. Fostering collaboration, communication and connection are the first priorities of the digital workplace. This can be seen in the improvement in performance as employees operate more effectively anytime, anywhere and on any device.

Our third hypothesis suggests that telework technology represents an advantage for companies that have a digital workplace in order to maintain/increase performance in unpredictable crises such as Covid-19. According to this research, this hypothesis has been confirmed. The findings indicate that companies with a digital workplace will continue to perform and increase productivity during Covid-19.

These findings allow us to confirm that the main concern of the digital workplace is to build the best experience for employees.

- **The difficulties encountered:**

The novelty of the concept posed some challenges to the thesis writing process. As the concept is new, there is not a lot of literature on the topic. Moreover, this thesis was limited by the lack of time, if we had enough time, our research would be more relevant.



Bibliography

Books:

- AGUTTER, (C) and others: *VeriSM™ - A service management approach for the digital age*, Van Haren Publishing, Hertogenbosch, 1st Edition, 2017.
- AMAR (H) and others: *Performing in a crisis: Extraordinary results in uncertain times*, Debats Publics, Paris, 1st Edition, 2020, pp.45-46.
- ASHRI, (R) : *The AI-Powered Workplace: How Artificial Intelligence, Data, and Messaging Platforms Are Defining the Future of Work*, Apress, 1st Edition, New York, 2020, pp.76-82.
- BAINES, (J) and HOWARD (C): *UX lifecycle: the business guide to implementing great software user experiences*, Packt, Birmingham, 2019, p.25.
- BERG, (O) and GUSTAFSSON (H): *Digital Workplace Strategy & Design: A step-by-step guide to an empowering employee experience*, Bod-books on Demand, 1st edition, Norderstedt, 2018, pp. 25-26.
- COURTOIS (T) and others: *The post-covid era: towards a business reset*, Debats Publics, Paris, 1st Edition, 2021, pp.26-28.
- KANE (G.C) and others: *The Technology Fallacy: How People Are the Real Key to Digital Transformation (Management on the Cutting Edge)*, Copyright material MIT Sloan Management Review, Boston, 2019, pp.157-161
- LOUREIRO, (S) and LEPETIT-BRIERE (M) : *boostez l'expérience collaborateur: la méthode pour attirer, engager, fidéliser en proposant une expérience mémorable*, Eyrolles Editions, Paris, 2018, pp.17-20.
- MARGOL, (E.G): *microlearning to boost the employee experience*, ATD press, Alexandria, 2017, pp.1-2.
- MARRONE, (R) and GALLIC (C): *le grand livre du marketing digital*, DUNOD, 1st Edition, Malakoff, 2018, p.83
- MAYLETT, (T) and WRIDE (M): *The Employee Experience: How to Attract Talent, Retain Top Performers, and Drive Results*, John Wiley & Sons, New Jersey, 2017, p.xi.
- MIGNOT, (O): *la transformation digitale des entreprises*, Maxima Editions, Paris, 2019, pp.15-18.
- MILLER, (P) and MARSH (E): *The Digital Renaissance of Work*, Routledge, London, 1st Edition, 2014, pp.97-112.
- MORGAN, (J): *the employee experience advantage: how to win the war for talent by Giving employees the workspaces they want, the tools they need, and a culture they can celebrate*, John Wiley & Sons, New Jersey, 2017, p.3.
- MORGAN, (J): *the future of work: attract new talent, build better leaders, and create a competitive organization*, John Wiley & Sons, New Jersey, 2014, p.63.
- NACI EFE, (M): *connect with your management on-the-go*, Peter Lang, Berlin, 2021, p.31.
- SACOLICK, (I): *driving digital: the leader's guide to business transformation through technology*, Amacom, New York, 2017, pp.117-119.

- SALDANHA, (T): *why digital transformations fail: the surprising disciplines of how to take off and stay ahead*, Berrett-Koehler Publishers, Oakland, 1st Edition, 2019, pp.6-7.
- SAMAMA, (C): *l'expérience collaborateur: faites de vos employés les premiers fans de votre entreprise !*, Diatino Edition, 1st Edition, Paris, 2017, pp.125-128
- SHIVAKUMAR, (S): *build a next-generation digital workplace transform legacy intranets to employee experience platforms*, Apress, New York, 2020, p.119.

Scientific Articles and papers:

- ABHARI (K) and others: « *Co-Governance in Digital Transformation Initiatives: The Roles of Digital Culture and Employee Experience* », Proceedings of the 54th Hawaii International Conference on System Sciences, 2021, pp.5801-5810.
- ABULIBDEH, (A): « *Can COVID-19 mitigation measures promote telework practices?* », Journal of Labor and Society, Vol.23, No.4, 2020, pp.551-576.
- AL-ABABNEH, (M): « *Linking ontology, epistemology and research methodology*», Science & Philosophy, Vol.8, No.1, 2020, pp.75-91.
- ATTARAN (M), ATTARAN (S) and KIRKLAND (D): «*Technology and organizational change: harnessing the power of digital workplace*», Handbook of Research on Social and Organizational Dynamics in the Digital Era, IGI GLOBAL, 2020, pp.383-408.
- ATTARAN, (M): « *Increasing Productivity in the Information Age* », Industrial management, 2019, pp.16-21.
- BELZUNEGUI-ERASO, (A) and ERRO-GARCES (A): «*Teleworking in the Context of the Covid-19 Crisis*», Sustainability, Vol. 12, No 9, 2020, 3662.
- COHEN, (D) and TORONTO (O): « *The power of employee engagement and experience* », 2019.
- GEIDAR, (Y) and SHAMIZANJANI (M): « *Conceptualizing the digital employee experience* », Strategic HR Review, Vol.19, No.3, 2020, pp.131-135.
- GOTTLIEB (C) and others: «*Working from home in developing countries*», European Economic Review, Vol.133, 2021, p.103679.
- HADDUD, (A) and MCALLEN (D): «*Digital Workplace Management: Exploring Aspects Related to Culture, Innovation, and Leadership*», Portland International Conference on Management of Engineering and Technology (PICMET), IEEE, 2018, pp.1-6.
- HAMBURG, (I): «*Implementation of a digital workplace strategy to drive behavior change and improve competencies*», Strategy and Behaviors in the Digital Economy, IntechOpen, 2019, pp.19-34.
- KANE, (G): «*Introduction: Digital transformation might be different than you think* », How to go digital: Practical wisdom to help drive your organization's digital transformation, MIT Sloan Management Review, 2018, pp.xi-xvi.

- KAUSHIK, (M) and GULERIA (N): «*The Impact of Pandemic COVID -19 in Workplace*», European Journal of Business and Management, Vol.12, No.15, 2020, pp.9-18.
- KNIFFIN (K.M) and others: «*COVID-19 and the workplace: Implications, issues, and insights for future research and action* », American Psychologist, Vol. 76, No.1, 2021, pp.63-77.
- LESTARINI (D), RAFLESIA (S) and SURENDRO (K): «*a conceptual framework of engaged digital workplace diffusion*», 9th International Conference on Telecommunication Systems Services and Applications (TSSA), 2015, pp. 1-5.
- MAZOR (A) and others: «*The digital workforce experience: Getting technology to work at work* », Deloitte Review, 2019, pp.10-20.
- NAIM, (M.F) and BULINSKA-STANGRECKA (H): «*Down the rabbit hole: Social media, workplace collaboration, millennial psychological need satisfaction and affective commitment in industry 4.0* », Thriving in digital workspaces, Springer, Cham, 2019, p.253-264.
- O'ROURKE (G.A): «*Workplace strategy: a new workplace model* », Asia Pacific Journal of Human Resources, 2021.
- PLASKOFF, (J): «*employee experience: the new human resource management approach* », Strategic HR Review, Vol.16, No.3, 2017, pp. 136–141.
- PRAJAPATI, (G) and PANDEY (S): «*Enhancing Employee Experience during Covid-19: A Qualitative Study on Investment Banks*», International Journal of Modern Agriculture, Vol 9, No.3, 2020, pp.1711-1734.
- RIEMER, (K) and SCHELLHAMMER (S): «*Collaboration digital age: Diverse, Relevant and Challenging* », Collaboration in the digital age, Springer, Cham, 2019, pp.1-12.
- SCHNEIDER, (M): «*Digitalization of production, human capital, and organizational capital* », the impact of digitalization in the workplace, Springer, Cham, 2018, p.39-52.
- TAKAHASHI, (A) and ARAUJO (L): «*Case study research: opening up research opportunities*», RAUSP Management Journal, Vol.55, No.1, 2020, pp.100-111.
- WALASH, (B) and VOLINI (E): *Rewriting the rules for the digital age: 2017 Deloitte global human capital trends*, 2017.
- WILLIAMS, (M): «*How to nurture a transformative digital culture in the workplace*», Strategic HR Review, Vol. 19, No. 1, 2020, pp.7-9.

Reports:

- Accenture Strategy, *Employee experience reimagined*, 2017.
- Capgemini Consulting, *the new digital workplace: employee productivity, brand image, business value*, 2013.
- Cisco, *the workplace revolution*, 2016.
- Deloitte, *digital workplace and culture*, 2016.
- Deloitte, *tech trends 2021*, 2021

- Deloitte, *the digital workplace: think, share, do*, 2014.
- EUROPEAN COMMISSION, *Digital Workplace Strategy*, 2017.
- Forbes Insights, *the digital workplace in the cognitive era*, 2016.
- Gallup, *Designing Your Organization's Employee Experience*, 2018.
- Gartner, *a digital workplace is crucial to digital transformation*, 2019.
- IBM and WORKHUMAN, *the employee experience Index*, 2019.
- IDC, *How Employee Experience Can Drive Digital Transformation*, 2020.
- International Labor Organization, *Teleworking during the COVID-19 pandemic and beyond*, 2020.
- International Labor Organization, *An employers' guide on working from home in response to the outbreak of COVID-19*, 2020.
- International Organization of Employers, *IOE Guidance on teleworking in the times of Covid-19*, 2020.
- KPMG, *meet the millennials*, 2017.
- KPMG, *workplace transformation in the wake of covid-19*, 2020.
- Mckinsey & Company, *customer experience: creating value through transforming customer journeys*, 2016.
- Mercer, *the coronavirus pandemic: a defining moment for employee experience*, 2020.
- Oracle, *oracle cloud using oracle digital assistant*, 2021.
- PwC, *making work more meaningful: Building a fulfilling employee experience*, 2018.
- PwC, *the COVID-19 remote working experiment*, 2020
- PwC, *unleashing the power of innovation*, 2013.
- Strategy&, *designing the digital workplace: connectivity, communication, collaboration*, 2013.

Websites:

- Agencies Are Saving Millions With Virtual Events - Nextgov
- Fife Council on course for £20M savings from mobility deployment - Information Age (information-age.com)
- https://blogs.gartner.com/anthony_bradley/2020/08/10/brace-yourself-for-an-explosion-of-virtual-assistants/
- <https://blogs.lse.ac.uk/businessreview/2020/06/24/covid-19-and-the-changing-employee-experience/>
- <https://www.cmswire.com/digital-workplace/5-levers-of-digital-workplace-governance/>
- https://www.ey.com/en_gl/workforce/is-the-employee-experience-you-are-delivering-the-one-your-people-want
- <https://www.forbes.com/sites/forbescommunicationscouncil/2019/09/04/the-direct-connection-between-employee-experience-and-customer-experience-and-how-to-improve-both/?sh=3cc8c107f608>

Bibliography

- <https://www.gartner.com/en/newsroom/press-releases/2017-08-22-gartner-highlights-eight-critical-components-of-a-digital-workplace>
- <https://www.gartner.com/smarterwithgartner/6-trends-on-the-gartner-hype-cycle-for-the-digital-workplace-2020/>
- <https://www.inc.com/ryan-jenkins/the-growing-relevance-and-importance-of-employee-e.html>
- <https://www.livescience.com/21569-deduction-vs-induction.html>
- <https://www.nicole-brown.co.uk/epistemology/>
- <https://www.predictiveindex.com/blog/remote-work-improves-employee-productivity-happiness-retention/>
- <https://www.strategy-business.com/blog/Five-Essential-Elements-of-the-Digital-Workplace>
- <https://www2.deloitte.com/be/en/pages/technology/articles/the-digital-workplace.html>



Appendices

Questionnaire

Dear Madam, Dear Sir,

As part of the preparation of a Master's thesis in Commercial Sciences, Option: Management and Entrepreneurship, at HEC Algiers, we undertake a research about: « Impact of digital workplace on employee experience ».

We kindly ask you to answer this questionnaire. We are committed to ensure the anonymity of your responses, because it is strictly oriented for scientific use.

We sincerely thank you in advance for your precious participation.

1) Gender:

Male

Female

2) What is your age?

21-31 years old

32-41 years old

42-51 years old

more than 51 years old

3) What is your employment status?

.....

4) How long have you been working at Cisco?

Less than a year

1-3 years

4-7 years

more than 7 years

I) Digital workplace attracts and retains top talent.

– Please indicate the extent to which you would agree with the following statement:

Question	According to you, does the digital workplace attract and retain top talent:	Strongly disagree	disagree	Neither agree nor disagree	agree	Strongly agree
05	Cisco has a strong positive brand perception					
06	Workplace technology impacts my decision to join Cisco					
07	I feel like i am part of a dynamic team.					
08	I believe in diversity and inclusion.					

09	I recommend Cisco to my colleagues as a great place to work.					
10	Cisco gives me the resources to develop my skills at work.					
11	I have multiple workspace options (shared spaces, conference and meeting rooms, collaboration spaces, etc.)					
12	Cisco's digital environment inspires and energizes me.					
13	I work in an environment of dignity, respect, fairness and equity.					
14	I trust my managers/supervisors and they trust me					
15	I have meaningful relationships at work					
16	Cisco's workspace design increases my engagement					

II) Digital workplace improves collaboration, communication and connection:

– Please indicate the extent to which you would agree with the following statements:

Question	According to you, does the digital workplace improve collaboration, communication and connection:	Strongly disagree	disagree	Neither agree nor disagree	agree	Strongly agree
17	The main driver of my experience is technology and tools					
18	Digital workplace technology supports a better way of doing business					
19	The technology i use in the workplace is focused on my needs instead of just on the technical requirements of Cisco.					
20	Cisco implements easy-to-use tools that can be used the same					

	way both inside and outside the workplace					
21	Digital technology enables me to find the information i need more quickly and serve customers more efficiently					
22	Connecting through real-time presence and rich online meetings such as audio, video, and web conferencing technologies can improve collaboration and communication quality					
23	Digital solutions prevent time wasted in recreating information that already exists					
24	Easily access to the information and resources anytime, anywhere and on any device					
25	The same technologies are available to everyone at Cisco					
26	Mobility promises seamless connectivity and collaboration					

III) Telework technology represents an advantage for organizations that have a digital workplace in order to maintain/increase performance during an unpredictable crisis such as covid-19.

– Please indicate the extent to which you would agree with the following statements:

Question	According to you, does telework technology maintain/increase performance during Covid-19:	Strongly disagree	disagree	Neither agree nor disagree	agree	Strongly agree
27	Covid-19 doesn't impact the way I work					
28	Teleworking was part of my habits even before Covid-19					
29	There is no difference between working from home and working from the workplace					
30	I am more productive while working from home					
31	Work from home maintains work-life balance					

32	Work From Home preserves my job					
33	One of the benefits of teleworking is the availability.					
34	There is a change in my work pace during Covid-19					
35	Teleworking keeps Cisco performing before, during and after covid-19					
36	After Covid-19, there will be a change in the way i work					

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