



T.C.  
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İNGİLİZCE İŞLETME ANABİLİM DALI  
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**IMPLICATIONS OF COVID-19 ON CRISIS MANAGEMENT, FROM  
THE PERSPECTIVE OF MOROCCAN EMPLOYEES**

Master Thesis

YASMINE LAASSILA

Istanbul, 2022

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Thesis Advisor: PROF. DR. FATMA ASLI EKMEKCI

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## Acknowledgements:

I would like to first start by giving acknowledgements to everyone who has helped me in any shape or form during this research process. First and foremost, I would like to start with PROF. DR. FATMA ASLI EKMEKCI who was my advisor throughout this process and has given me consistent feedback and her previous time, as well as advice whenever I needed it.

Secondly, I genuinely thank all the members of the jury that I am given for my thesis defense for their time, feedback and insight in advance. A special thanks to every single person who participated in the survey and shared it, as well as to the professional translator, Mr. Mohamad Barakat, who helped me validate the French questionnaire.

Finally, warm thanks and honest gratitude to my family members and friends, especially my mom and sister who have supported me these past three semesters and encouraged me to do my best.

## Özel teşekkür:

Öncelikle bu araştırma sürecinde bana yardımcı olan herkese teşekkür ederek başlamak istiyorum. Özellikle süreç boyunca danışmanım olan,ihtiyaç duyduğumda benimle geri bildirimlerini ve tavsiyelerini paylaşan Professor.Dr.Fatma Aslı Ekmekçi.

İkinci olarak tez savunmam için bana destek olan tüm jüri üyelerine ayracakları zaman ve anlayışları için teşekkür ederim. Ankete katılan,paylaşan herkese özel teşekkürler

## **Abstract:**

The unexpected emergence of the Coronavirus at the end of the year 2019 as a global health crisis had big and obvious impacts on our lives in all its aspects. Consequently, businesses had to adapt to these impacts in order to survive.

The purpose of this thesis research is to determine the practices that crisis management teams have used in order to manage Covid-19 within their organizations in Morocco and the impacts that these practices have had and are still having on the job satisfaction of their employees.

A conceptual framework has been set in place for this study in order to measure to what extent does working from home, the adoption of digital transformation, performance management and employee training affect job satisfaction of employees in Morocco, which is the main research question of this study. This research follows a survey research design through which data has been collected from 187 respondents. Using this data, a partial least squares analysis was conducted in order to test our hypotheses and validate them.

Results of this analysis show that there is in fact a strong correlation between performance management and employee training on job satisfaction of employees during the pandemic, while work from home has a positive partial mediation impact on the relationship between digital transformation and job satisfactions. They imply that work from home, training, digital transformation and performance management have strong positive impacts on the job satisfaction of employees during the Coronavirus pandemic, at least according to the Moroccan employees that were surveyed during this study. These findings can be used to customize crisis management plans of Covid-19 in Morocco and even design precautionary ones for potential threats and crises. This can lead to a better future response to these plans.

**Keywords:** Crisis Management – Human resources – Coronavirus – Working from home – Employee development - Digital transformation - Performance management

## Özet:

Koronavirüsün 2019 yılı sonunda küresel bir sağlık krizi olarak beklenmedik bir şekilde ortaya çıkması, tüm yönleriyle hayatımızda büyük ve bariz etkiler yarattı. Sonuç olarak, işletmeler hayatta kalabilmek için bu etkilere uyum sağlamak zorunda kalmaktadır.

Bu bildirinin amacı, kriz yönetim ekiplerinin Fas'taki kuruluşlarında Covid-19'u yönetmek için kullandıkları uygulamaları ve bu uygulamaların çalışanlarının iş tatmini üzerindeki etkilerini ve halen devam etmekte olan etkilerini belirlemektir. Bu çalışmanın ana araştırma sorusu olan Fas'ta evden çalışmanın, dijital dönüşümün benimsenmesi, performans yönetimi ve çalışan eğitiminin çalışanların iş tatminini ne ölçüde etkilediğini ölçmek için bu çalışma için kavramsal bir çerçeve oluşturulmuştur. kağıt.

Bu araştırma, 187 katılımcıdan verilerin toplandığı bir anket araştırması tasarımını takip etmektedir. Bu veriler kullanılarak hipotezlerimizi test etmek ve doğrulamak için kısmi en küçük kareler analizi yapılmıştır.

Bu analizin sonuçları, performans yönetimi ile pandemi sırasında çalışanların iş tatmini konusunda çalışan eğitimi arasında aslında güçlü bir ilişki olduğunu gösterirken, evden çalışmanın dijital dönüşüm ile iş tatminleri arasındaki ilişki üzerinde olumlu bir kısmi aracılık etkisi olduğunu gösteriyor. En azından bu çalışma sırasında ankete katılan Faslı çalışanlara göre, evden çalışma, eğitim, dijital dönüşüm ve performans yönetiminin korona virüs pandemisi sırasında çalışanların iş tatmini üzerinde güçlü olumlu etkileri olduğunu ima ediyorlar. Bu bulgular, Fas'ta Covid-19'un kriz yönetimi planlarını özelleştirmek ve hatta potansiyel tehditler ve krizler için ihtiyati planlar tasarlamak için kullanılabilir. Bu, bu planlara gelecekte daha iyi yanıt verilmesine yol açabilmektedir.

**Anahtar kelimeler:** Kriz Yönetimi - İnsan kaynakları - Koronavirüs - Evden çalışma - Çalışan gelişimi - Dijital dönüşüm - Performans yönetimi

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**List of abbreviations:**

<b>ANOVA</b>	Analysis of Variance
<b>AVE</b>	Average Variance Extracted
<b>cat</b>	Category
<b>DT</b>	Digital Transformation
<b>EVA</b>	Equal Variance Assumed
<b>ENVA</b>	Equal Variance Not Assumed
<b>HR</b>	Human Resources
<b>HRM</b>	Human Resources Management
<b>HTMT</b>	Heterotrait-Monotrait ratio of Correlations
<b>IT</b>	Internet Technologies
<b>JSI</b>	Job Satisfaction Index
<b>PLS-PM</b>	Partial Least Squares Path Modeling
<b>PM</b>	Performance Management
<b>RW</b>	Remote Working
<b>SEM</b>	Structural Equation Modeling
<b>SPSS</b>	Statistical Package for Social Sciences
<b>SRMR</b>	Standardized Root Mean Square Residual
<b>WFH</b>	Work from Home

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## **1.Introduction:**

At the end of the year 2019, a new respiratory virus was discovered in China, called Covid-19, also known as the Coronavirus. By March 11 of the year 2020, the director general of the World Health Organization, the WHO, declared this Coronavirus crisis as a global pandemic because of the rising number of cases throughout the world (Adhanom, 2020).

This Coronavirus is airborne which means it can be transmitted from a person to another through air, droplets and by touch (Morawska & Cao, 2020). Therefore, because of the nature of the virus, immediate and necessary measures had to be taken by our governments in order to limit the impacts of the virus. The main and most direct way to do this was to limit human interactions and human contact. This means that countries all over the world started doing lockdowns and restricting usage of public spaces as well as businesses.

As a result, businesses were massively affected by this new unexpected crisis. The businesses that were impacted by this virus can be split into two categories. The first category is for businesses that had to close temporarily because their governments made them close to avoid social gatherings or because they simply could not survive the immense drop of demand for their services after people were put on lockdown. To name a few of these businesses, we can mention cinemas and airline companies. Indeed, for most of 2020, flights were banned throughout the world, which has forced airline companies to shut down. Consequently, the airline and aviation industry witnessed its most significant drop in recent history. According to the International Civil Aviation Organization, ICAO, in 2020, this industry had in fact lost around \$370 billion (2021). Furthermore, and since this study focuses on Morocco, based on the official announcement made by the Moroccan Civil Aviation Authority, the country at the time of the submission of this dissertation - December of 2021 - still has flights banned due to the spread of the latest variant of Covid-19, Omicron, until further notice (2021). The second

category is for businesses that had to change and adapt their practices in order to survive the pandemic. For example, many retail companies shifted most of their activity to online retail. Many companies adopted working from home and virtual teams instead of the traditional work practice. This research will be considering businesses of this category. Therefore, it will discuss the practices of active organizations that were faced with the challenges of maintaining their operations, productivity and meeting demand during the pandemic.

Because of these sudden and unpredicted changes, and as implied in the paragraphs above, companies, schools, and public spaces had to adjust by adopting new techniques and mechanisms in their work. For many institutions, this crisis truly tested their crisis management plans and highlighted the importance of the involvement of the human resources department when it comes to the design and implementation of crisis plans. So, what is crisis management? “Crisis management refers to the process of anticipating, identifying, preventing and managing potential disasters by putting in place plans to deal with crises when they occur” (Ronez, 2014). This management should cover the three different stages that define a crisis: the pre-crisis, the crisis and the post-crisis. In theory, a good crisis management plan follows these steps: “signal detection, preparation for crisis, crisis containment, recovering from the crisis, learning from the experience and the redesigning of a new and better plan,” as was explained in Pearson’s and Mitroff’s crisis management framework published by the Academy of Management (1993).

It is important to mention that crisis management could be either company-focused or employee-focused. Traditionally, crisis management prioritized the protection of the company’s “resources, processes, technology and reputation while neglecting the human side” (Athamneh, 2018). On the other hand, a more updated crisis management approach focuses on the human capital more. Furthermore, and according to the same source, studies have shown that “organizations that incorporate employee welfare into their crisis management plan are more likely to be successful compared to the rest” (Athamneh, 2018). So how does human

resources' management play into this? The role of HR when it comes to this is to involve their employees in the pre-crisis, crisis and post-crisis plans. For example, employees should contribute to the detection of potential risks and crises that the company might face. They should help with the design of the plan as well as be consulted by management for their opinions about the organizational crisis management. In addition to that, they should be trained beforehand for potential threats and how they are supposed to respond to them (Hamouche, 2020).

The novelty of the current crisis that the world is currently facing has created a knowledge gap about crisis management for problems that require isolation or minimal human interaction. Due to these factors, the crisis in question is unique in its nature. It is different from economic or environmental crises, and as far as health crises go, Covid-19 is without doubt the biggest global health crisis in recent history. In order to determine the most effective modern practices of crisis management for Covid-19, an important knowledge gap has created space for a lot of potential studies and research covering this topic. Furthermore, this study focusing on Morocco can also be considered a part of the contribution of this thesis research to this field of research since it is the first of its kind.

In order to get an idea on the most common practices that are the most effective for the management of the Coronavirus crisis, I reviewed and went through multiple different research studies and published papers that have been conducted last year around the world. It was important to note the different methods and research strategies used to conduct these studies based on the perspective they focused on: Human Resources managers', top management's, or employees' perspective. It was noted that the common suggestions that most of these studies had mentioned in their recommended future work following their research was the consideration of the perspective of the employees about their own managers' plans. Consequently, the contribution of my study tackles the determination of the best crisis

management practices, involving human resources, which can help an organization in Morocco manage the crisis of Covid and investigate the relationship between each one of these practices and employees' job satisfaction. This will be done in order to understand the extent to which crisis management of Covid-19 within Moroccan organizations affected and is still affecting the Moroccan employee's job satisfaction. This research will investigate and evaluate the importance of four crisis management practices, (and they are working from home, digital transformation of businesses, training and employee development, and lastly, performance management) and their impacts on job satisfaction during the Coronavirus health crisis.

The structure of this dissertation is very straightforward. After the introduction and the literature review of the research topic, the conceptual framework is stated alongside its variables, relationships and hypotheses. The model has five constructs, three of which are independent variables, one being a mediator and the remaining and fifth one is the dependent variable. Details about these constructs and their relationships will be given later in this dissertation. After that, this thesis report elaborates on the research methodology used as well as how data was collected and analyzed. Lastly, the dissertation will share the policy implications drawn from the interpretations of our data and findings as well as suggested solutions to fix the research problem. After that, the thesis ends with the conclusions drawn from the research, summarizing the research itself, its limitations and suggestions for future work directions about this topic or similar and related topics.

Before moving to the theoretical framework section of this study, here are the research questions that this dissertation will try to answer:

- Q1: What are the crisis management practices used within Moroccan organizations to manage their employees during Covid-19?

- Q2: To what extent does working from home, digital transformation adoption or acceleration, performance management, and employee training/development impact the job satisfaction of Moroccan employees during Covid-19?

## **2.Theoretical framework of the study:**

First, when going through the different literature for this study, specifically for those covering the involvement of human resources during crisis management of Covid-19, it was noted that the literature found could be classified by the perspective of the studied/questioned workers: managers or their subordinates. This means that studies were done either from the perspective of the managers themselves, and this can refer to Human Resources managers, HR experts or top management itself, or their subordinates: staff, workers, etc.

Secondly, the literature examined had different conceptual models. Each model focuses on different crisis practices and mechanisms applied for managing a crisis. For this study, a new model was introduced using a combination of variables from old literature, taking into consideration the variables that proved to be the most relevant in older literature.

The literature review of this study will be represented in 6 sections. For the first 5, each section will present and summarize the literature about each variable in our model. The 6th and last section will discuss our hypotheses development and provide theoretical support for the relationships between the variables.

### **2.1 Job satisfaction:**

#### **2.1.1 Job Satisfaction in general and its importance:**

Job satisfaction does not have one specific definition. Because of this, a few of the most popular literature definitions were selected to be discussed. Among these definitions, we can

state it as a "reintegration of affect produced by individuals' perception of fulfillment of their needs in relation to their work and the situations surrounding it" (Sinha & Gupta, 1974). According to Locke's definition, it is the "pleasurable or positive emotional state resulting from the appraisal of one's job or job experience" (1976). It is clear that "satisfaction" is not an observable behavior; hence, why it is difficult to define. Another popular definition is the following: "Job satisfaction is an emotional response defining the degree to which people like their job" (Siegal & Lance, 1987). The main shared sentiment in these definitions is that this concept measures the extent to which an employee is satisfied with their job at the studied moment or period. This already points out the fact that it depends on several characteristics, be it employee-centered or organization-centered.

One of the main reasons why this construct is a relevant research topic is because of its own managerial impacts and implications. "If the job satisfaction is high, the employees will perform better. On the other hand, if the job satisfaction is low, there will be performance problems" (Pushpakumari, 2008). This clearly highlights the important role it plays when it comes to performance. In fact, numerous studies have concluded that job satisfaction can be related to job performance, productivity, employee turnover, organizational commitment, etc. All of these can have a huge impact on the success of a company, thus making this variable very relevant.

Indeed, throughout the years, multiple studies used the variable "job satisfaction" as both a dependent and an independent variable in order to identify its impacts and effects. Among the most discussed relationships of this variable, is its relationship with job performance. According to Lawler and Porter's famous motivation theory, performance creates "rewards" and "rewards" lead to satisfaction (1967). These rewards can be financial and non-financial such as health-insurance policies (Mwita, 2020). Moreover, another study about the causal relationship of employee satisfaction confirmed that "treating employees as a valuable asset provides a win-win foundation for both the organization and the employees" (Hsu & Wang, 2008).

Furthermore, the Western Electric organization conducted several studies, known in this field of study as the Hawthorne studies, for over a decade in order to determine the work environment conditions that affect productivity, and among their results, job satisfaction was associated with productivity; however, their results could not be generalized by newer studies (Lawler & Porter, 1967). Another study showed that job satisfaction is considered a “key mediating variable between work environment and turnover intent” (Lambert et. Al, 2001). Another research proved that job satisfaction is related to organizational commitment (Rehman et. Al, 2013). These findings conform with numerous previous studies and their findings, such as those of (Currivan, 1999; Meyer et al., 2002; Malhotra & Mukherjee, 2004; Saari & Judge, 2004), all of which have shown the interdependence and interrelations between Job Satisfaction, organizational commitment, job involvement, job performance and turnover intention (Gopinath & Litt, 2020). To sum up, when it comes to organizational factors, job satisfaction must be taken into consideration.

### **2.1.2 Job Satisfaction factors:**

Although the definition of this concept is constantly changing and evolving, the one thing that the majority agrees about is the fact that it is related to job characteristics (Wexley & Yukl, 1984). These job characteristics can be either intrinsic or extrinsic factors. Intrinsic factors refer to internal factors like employees’ perceptions, motivations, recognition, etc. (O’Driscoll & Randall, 1999); whereas external factors usually refer to “work conditions, supervisors, employee relationships, etc.” (Herzberg, 1966). This means that the concept of job satisfaction can be studied from different perspectives: employee-centered approach, organization-centered approach, or the most conclusive alternative: the combination of both.

The factors affecting this satisfaction are always changing and depend on the context and environment of the job. As a result, this variable has always been a relevant research topic with

no specific final answer in research about its defining factors. In fact, according to Hoppock, it could be “any combination of psychological, physiological and environmental circumstances that cause a person to truthfully say I am satisfied with my job” (1937). That statement sums up why it is difficult to pinpoint an exact specific set of factors as the defining factors of job satisfaction. First, when we speak about “psychological” and “physiological” traits, here we are talking about personal traits of people that cannot be generalized. Furthermore, when we talk about “environmental” conditions, here we are talking about the circumstances of the job environment, which change from an organization to another based on its organizational culture, market, economic and political states of the country, the era, etc. This is the main motivation behind the choice to limit the study to the Moroccan context only, since the latter has its own unique and different characteristics.

### **2.1.3 Job satisfaction during a crisis:**

Since the causes and factors of Job Satisfaction depend on the context and they make up the work environment, it becomes obvious that the current situation of the Covid-19 pandemic, especially since it is new and unique in its nature, has created a new environment or context to study the job satisfaction of employees. Indeed, in addition to the global pandemic having a huge impact on our lives and businesses; it has also caused a change of practices in the work environment, specifically talking about management practices and policies. This change included practices that directly affect job satisfaction, such as supervision and work conditions (working in the office vs working from home or remote working, transitioning to digital work and adopting digital transformation, providing training programs, virtual communication etc.). Consequently, this raised new questions about how employees have reacted to their organizations’ responses to the pandemic in the workplace, and how this has affected their job satisfaction.

According to a study about job satisfaction during the economic crisis of Greece, employees' satisfaction decreased during the crisis due to the impact of the extrinsic factors surrounding their jobs (Markovits et al., 2014). Another similar study about job satisfaction in the Netherlands after the 2008 recession concluded that employees' satisfaction increased during the crisis, then dropped again post-crisis (Pilipiec et. Al,2020), to explain this, the study says that the employees who were likely to be dissatisfied during the crisis were already laid-off at the start of the recession, because of the crisis. Those who kept their jobs were satisfied and understood the intensity of the job market during the recession; consequently, they were not looking for other alternatives. However, once the recession ended, the satisfaction levels dropped again because the employees had more options to leave or take different jobs or opportunities again. A more recent study measured job satisfaction and occupational stress of employees during the Covid-19 pandemic and reported low satisfaction levels (Said & El-Shafei, 2021), as one would expect from the stressful aspect of a health issue. This study however did not study (extrinsic) job satisfaction in the context of a conceptual model that considers independent variables that can affect the job satisfaction during the pandemic. Our study will take four practices that were used as crisis management solutions during Covid: Working from home, digital work/transformation, performance management and employee training or development, and evaluate them as the driving "extrinsic work environment" conditions that influence employee satisfaction during the pandemic.

## **2.2 Working from home and remote working:**

### **2.2.1 WFH pre-Covid:**

The most common practice that most existing literature has suggested for businesses to use to adjust to working under the risks of Covid-19, is working from home, referred to in this section as WFH, or remote working, with hospitals, retail companies and pharmacies being some of the very few exceptions to this practice. This mode of work is not completely new. It

was not simply born overnight after the Coronavirus was announced as a global pandemic. In fact, before Covid-19 took over and changed “reality” as we know it, WFH was an option that a few businesses already adopted in the last decade, as well as a style of work that many freelancers chose for their careers.

Indeed, according to the empirical study about the “paradigm cultural shift” of working from home by the scholars Rangarajan and Saranya from the University of Madras, “remote workplace was [already] an emerging organizational culture in the last five to ten years across global nations” (2020). Furthermore, and especially thanks to the internet and new technologies, many self-employed people have been working from their homes in recent years. Especially if we consider modern freelancers who offer their services online, which as a result, leads to them having flexible schedules and working from their homes in any environment they see fit to perform their tasks, outside of the traditional context of “the workplace.” A good example of remote workplaces is workstations or work coffeeshops that offer good internet connections and a suitable environment to work or study.

In this sense, before WFH became the popular synonym to businesses’ response to working during Covid-19, this option of work was considered an approach to decrease operational costs and “enhance the work life balance of employees” (Rangajaran & Saranya, 2020) for organizations; whereas for freelancers and self-employed people, it was the easiest alternative to perform their tasks. Aside from that, and according to the same source above, one could also argue that this mode of work benefits the employee more than the traditional way as it requires less traveling, commuting and less overall physical energy.

### **2.2.2 WFH during Covid-19:**

Although there are many cases where WFH was already applicable pre-Covid, it was far from becoming neither the “normal” nor the “common” mode of work that it became during

the pandemic as countries started doing lockdowns (mostly obligatory lockdowns). It went from being an “option” or an alternative in specific cases to being an obligation for a lot of people.

Moreover, corporations needed to provide a safe work environment for their employees (Kniffin et al, 2021). Due to the nature of this specific crisis, safety of employees meant social distancing and minimal human contact. It became the organizations’ duty to follow the governments’ and health institutions’ guidelines about the disease (Hamouche, 2020). However, this is not a simple task to achieve. In order to transition from regular work habits to working from home, the companies needed to make sure to maintain the management of their employees effectively through regular and consistent communication and performance management, (Sulaiman, 2020), as well as providing the necessary technology tools and training programs (Manuti, 2020). In fact, one study used this special crisis as an opportunity to provide an in-depth insight for the best and worst employee profiles to work from home. The results implied that “millennial women with higher degrees of education with 4 to 10 years of experience at their jobs and some prior WFH familiarity,” were the best profile to transition completely to working from home during the pandemic with the least challenges faced. However, male baby boomer employees with a university degree, a long experience reaching 20 years at their jobs but no familiarity with working from home, were the least satisfied with the transition and had the hardest time doing it (Raišienė, 2020). It is also worth mentioning the accompanying practices and challenges that emerged as a result of WFH, such as maintaining employee surveillance and establishing virtual leadership without crossing the boundaries of privacy and causing employees more stress (Kniffin et al., 2021).

An important sub-practice of working from home that was rarely mentioned in the existing literature is flexible scheduling. A study that breaks down the sources of stress that employees experienced during Covid-19 and suggests solutions to these stressors, says that giving WFH employees the freedom to organize their own work schedules yields and leads to better results

in coping with the lack of the common “professional” work atmosphere at home (Hamouche, 2020). For example, during lockdown, a parent working from home might perform better during the night after their kids have gone to sleep in a quiet environment than during the usual work hours of the traditional workplace. Therefore, it is advisable to allow for flexible schedules and permit employees to organize their hours based on their availability and home environment.

### **2.2.3 Difference between WFH and remote working during Covid:**

The studies mentioned so far fail to point out the difference between choosing to do remote work and to be obliged to work from home. While remote working simply refers to working from distance, it does not limit the workplace alternatives to be the worker’s “home.” This means that this option still allows tasks in an environment that can be good for work and that the employees can choose it themselves, including public spaces. In fact, as of recent years, many areas and shopping malls now provide “workstations” as calm spaces where people can work comfortably and in an equipped environment. However, forced WFH implies that employees must work from their own homes to respect the Covid-19 health guidelines, especially NOT in public spaces since the whole point was, and still is, to practice social distancing and limit the spread of the virus. This means that employees had to transition to WFH regardless of whether the environment at their homes is suitable to work or not. For instance, and especially because the transition to WFH was very sudden, many found themselves working in noisy and crowded environments, missing the needed technical infrastructure, not having the right technology, having to deal with a lot of distractions, etc. (Almarzooqi & Alaamer, 2020).

## **2.3 Digital transformation to cope with Covid-19:**

### **2.3.1 Digital transformation pre-Covid:**

According to “MIT’s research scientist, George Westerman, digital transformation marks a radical rethinking of how an organization uses technology, people and processes to fundamentally change business performance” (Boulton, 2020). This concept of “changing industries fundamentally” is fairly new (Kniffin et al., 2021). Like Working from Home, it was not born with Covid-19 but a few years before it. Of course, the pandemic has led to promoting it further and accelerated its adoption rate across businesses everywhere.

Unlike the popular misconception, it does not only refer to the digitalization of things, for example, replacing traditional tools with digital ones or just applying new technologies. It goes beyond that to transform the entire business model. This means, the transformation does in fact cover the technology used, but it also covers the processes, the operations and the services. This transformation ends up creating “new opportunities for novel industries to emerge” (Kniffin et al., 2021). It focuses more on the people of the business than the tools and so, it leads to an organizational change and transforms the business’ culture (Davenport & Redman, 2020). Pre-Covid, a few businesses adopted this trend to keep up with the rapid developing technology and gain a competitive advantage. However, during Covid-19, it became a survival tool.

### **2.3.2 Digital transformation during Covid-19:**

A study from the Journal of Intercultural Management discussed the need to revise the current trends in HRM, Human Resources Management, for post-Covid19 and highlighted the importance of digital transformation, referred to in this section as DT, when it comes to business continuity (Przytuła et al, 2020).

As a response to social distancing practices like employees having to work from home and clients being on lockdown or quarantine, many businesses had to take a digital transformation

approach and create digital and virtual equivalent services, operations, communication, management, etc, to keep their businesses afloat. For example, in most countries, education had to move to online platforms. Countries like “Germany, South Korea and China used contact-tracing to identify Covid-19 contagion [...] China used drones to monitor lockdowns” (Datta & Nwankpa, 2021). However, because the transformation in this context was the result of a crisis, the definition of DT slightly changed. “Unlike traditional digital transformation that relies on closed organizational operations with established lines of control and communication, digital transformation for crisis relies on a variety of global actors, from independent entrepreneurs and institutions to businesses and public policy” (Datta & Nwankpa, 2021). This means that instead of the traditional definition of DT being a digital disruption in the business model that leads to innovative ways to improve it using new technologies, during the global pandemic, DT became a response to reduce the risks of the pandemic’s own disruption of business operations. In other words, it became a tool to allow and continue activities during the crisis (Gigauri, 2020). Gigauri’s research provided a detailed breakdown of how the need for DT was created during the crisis and this is our summary of it:

Covid-19 caused many businesses to close or lower their revenues. This reflected and showed the flaws within organizations’ crisis management plans in terms of lack of remote work experience for example, and employee flexibility. As a result, business continuity became a major problem. Consequently, virtual work was introduced as an early response. This virtual work required new forms of collaboration, communication, technical and socialization skills. Thus, the new or improved digital operations created a need for digital platforms which then created a need for digital technology like robotics and artificial intelligence. And this is how digital transformation has played and still plays a big role during the pandemic (Gigauri, 2020).

With these changes, the employees needed to learn how to use the new technology and get accustomed to the new systems. This meant that the changes created a need for digital skills and knowledge that not all employees already possessed (Gigauri, 2020). This was also highlighted when it came to the need and usage of digital communication tools. For example, even HR teams needed to rely heavily on virtual recruitment in order to protect themselves as well as potential new staff. This ended up giving better results because it gives all the parties involved more opportunity to study body language and assess the engagement and behavior of the employee or the employer.

Another important point that was highlighted in the literature is the advantage that businesses that already were familiar with DT had over the businesses that did not: those who only adopted this approach after the global pandemic forced them to (Fitzpatrick et al., 2020). In fact, even industries that were leading in DT pre-Covid, such as leading banks, struggled “to provide many digitally enabled financial services,” despite having “created a digital banking ecosystem within the last couple of years” (Datta & Nwankpa, 2021). On the other hand, Fintechs, which stands for Financial Technologies and as their name indicates, are companies that offer digital financial services and solutions, have continued to grow during the pandemic. In fact, and thanks to the way Fintechs were able to stand resilient and survive during the pandemic, a study in latin America concluded that “fintechs can help Latin America Deal with the Economic Challenges of the COVID-19” (Smeets & Zeisberger, 2020).

### **2.3.3. Digital transformation post-Covid:**

Since this crisis is more than just a disruption but an actual “new reality” as it continues to be a problem, another paper suggested that HR management teams should work on “hybrid models that revise organizational culture” even post-Covid (Gigauri, 2020). This means that this hybrid model should allow the business to be prepared to switch to digital-performance,

communication and task management at any given time. Employees should be trained to work from home even when it is not mandatory. In fact, because of this new “hybrid model,” organizations should be capable of hosting different work modes for their activities and employees: both working from home and working from the office (Gigauri, 2020). This type of hybrid model, as well as the full-time WFH model that many businesses took during the global pandemic created a need for new digital “modes of surveillance without the invasion of privacy” for their employees (Kniffin et al., 2021).

#### **2.4 Performance Management and supervision during Covid-19:**

A mechanism that the literature reviewed has heavily recommended for organizations to incorporate in their Covid-19 management plans with the help of HR management is consistent supervision and communication. In this context, supervision goes beyond the literal definition of the word and becomes a broad umbrella term, intersecting with employee engagement practices.

In fact, it covers many topics and takes many forms. For a better employee-employer interaction during the crisis of Coronavirus, the following techniques were encouraged: holding regular information sessions, doing employee trainings for Covid-19 guidelines, hosting regular check-ups and meetings, maintaining transparency with employees, collaborating with them for plans making, giving them access to employee-assistance programs for counseling, and making an effective use of digital communication tools. In addition to that, an organization should “build a strong communication regime with its teams, not forget to cheer them up with instant appreciation, ensure flexibility, create a virtual community with all its employees and host online activities” (Chanana, 2020).

These techniques had the main goal of ensuring motivation and protecting the employee’s well-being, which then positively affects their performance. According to Hamouche, the main

stressors for employees during the current pandemic have to do with their “perception of safety, risk of contagion, info-obesity of the unknown [...] social exclusion and job insecurity” (2021); info-obesity means here the overflow of information surrounding the topic of Covid-19 from everywhere and on all platforms, without any filtering of information or fact checking. Furthermore, this study also highlights the feelings of social exclusion, loneliness and stigma that quarantine and catching Covid-19 might trigger within the employees. The point that the Academic researcher Hamouche made in the previous quote is that mental health of employees could be improved during such a crisis by targeting the causes of these stressors. For example, in order to avoid “info-obesity” and “risk of contagion,” management should host regular information sessions of accurate and confirmed information to their employees in order to deny any rumors concerning health risks or company conditions that would otherwise cause the employees’ stress. These solutions can be split into 3 levels: 1) organizational: such as occupational safety and health management, 2) institutional: such as providing first aid and counseling, and 3) individual: such as age, gender, education, etc. (Hamouche, 2020).

In addition to that, these sessions should regularly update the employees of the current health guidelines suggested by the WHO organization and their governments to avoid contagion, such as mandatory masks, social distancing, use of antibacterial products, etc. For social exclusion and isolation, especially after the first phase of lockdown, many employees whose most social interactions used to happen in the workplace, felt socially excluded during lockdown and isolated. Therefore, it is important for management to host digital communication events, from meetings to check-ups, as well as provide access to digital counseling, when needed, through “webinars for anxiety and stress” for example (Chanana, 2020). Popular causes for anxiety and stress during the pandemic are the fear of Covid-19 (Mahmud et al., 2021), job insecurity (Hamouche, 2020) and work overload (Agarwal, 2021). Because of these stressors,

published author Iza Gigauri suggested that top management should apply “less strict policies” and prioritize the well-being of their subordinates (2020).

From the previously mentioned study, the author suggested more communication practices to support employees mentally throughout this crisis. For example, the study encourages hosting “appreciation sessions and shared content such as TED talks, online guidance for exercise and meditation, [providing] online recognition and acknowledgment of employees, short online game session, entire team gathers over video conference for lunch” (Chanana, 2020). Among the practices that Academic researcher Kniffin and his collaborators have recommended for this we can mention: “employee assistance programs, access to counseling, providing feedback and support through regular contact using video calls” (Kniffin et al., 2021).

This kind of supportive and transparent communication maintains the business’ continuity plan and helps reassure employees. In addition to that, not only does reassure employees but it also leads to good employee retention for the organization (Elsafty & Ragheb, 2020). Furthermore, “the involvement of employees in the preparation of a post-pandemic business plan reduces their levels of stress, fosters a positive attitude and reinforces team cohesion” (Hamouche, 2020). It is important to point out that these practices also cover HR employees. HR teams also need to be aware of the proper behaviors needed to prevent the virus’ spread, to learn how to deal with a crisis in a digital way, to convert to virtual teams and virtual activities instead of the norm. Another communication form is the involvement of employees in the making of plans. For example, for the “return to work” plans, employees should be consulted about their expectations from the reintegration back to traditional work environment and work accommodations (Hamouche, 2020). It is also important to highlight the significance of such practices even post-Covid since multiple studies have concluded that the current health crisis will have future impacts on employees. In fact, it is predicted that the current existing fear of Covid will cause workers future career-anxiety (Mahmud et al., 2021).

## **2.5 Employee development and training:**

### **2.5.1 Need for employee development and training in general:**

First, the term “training” was also used in the section above discussing the importance of consistent “Engagement practices” between managers and their subordinates throughout the pandemic. So before getting into this section, let us first make a distinction between training in terms of employee development and “training” in the context of dealing with the pandemic as it was mentioned earlier. The latter refers to the training sessions that organizations may have found themselves obliged to hold in order to teach their employees the guidelines of safety during Covid-19: keeping physical distance, always wearing a mask, avoiding physical contact, washing their hands with soap, using gloves and antiseptic products, not touching their masks, etc. While training in the employee development context refers to skill development. It is about the professional set of skills that an employee needs in order to perform their job well. This type of training is the focus of this part.

Employee development and training is a common usual thing for organizations to do with the purpose of improving their employees’ capacities and consequently, job performances (Rodriguez & Walters, 2018). As the WFH and digital transformation sections of this literature review have pointed out, the changes that the global pandemic has forced businesses to take have created an immediate need for more and special employee training programs, development or even re-skilling.

### **2.5.2 The special need of trainings that the pandemic created:**

“COVID-19 being a unique kind of crisis, strategies to deal with it should also be different from other types of crises” (Mwita, 2020). Based on the well-being study that was conducted in India for Hotel employees, most office employees were not prepared in any way to ever need to work from their homes (Agarwal, 2021). This created a big problem for these employees

once the transition to working from home was done. There was a lack in terms of skill: no digital knowledge. A lack in terms of resources: no technology tools and devices available at home which meant the company needed to provide their employees with these things. Lastly, lack of work environment conditions: most employees were not living alone and had to deal with non-professional conditions to work that affected their performances. These factors affected the employees' mental health, became new mental stressors and gave them fear and job insecurity. This study identified a serious problem that many organizations had prior to Covid: crisis unpreparedness. As a result, employees struggled to adapt to the new ways of work that were implied by the pandemic. This created an urgent need for an update of skills of these employees (Gigauri, 2020).

In addition to that, because of the disruption that the pandemic has caused, businesses had to adopt more digital transformation trends, which meant they introduced new digital solutions to provide new services, perform their tasks, maintain their operations, etc. This sudden adoption of digital transformation practices requires re-skilling of employees to teach them how to perform these new tasks.

Furthermore, according to the recently published article of *Revision of Future Trends in HRM after Covid-19* from the Journal of Intercultural Management, incorporating trainings and re-skilling of employees should not only cover crisis plans but also post-crisis trainings (Przytuła et al, 2020). In fact, training should “target education systems and equip employees with the most predictable competencies to be useful after the pandemic” (Przytuła et al, 2020). Just like employees should have been trained beforehand to be ready to deal with a WFH situation, during the pre-crisis stage, it is also important to train them right now, during the crisis stage, to be ready to deal with the post-crisis conditions. Based on the same source cited above, HR experts predict that it will be very challenging to restructure the workplace and content of work again once the pandemic passes over (Przytuła et al, 2020). Moreover, the same

source states that because of the traces that the challenges of Covid-19 will leave in terms of mental health, new technology and resources, employee development will be a focus after Covid-19. So training and re-skilling mechanisms are still of big importance when it comes to HR practices and both managers and their subordinates should expect training even after the end of the current crisis.

### **2.5.3 Challenges of virtual trainings/workshops during Covid-19:**

As mentioned before, the nature of this current crisis is unique because of how the disease can easily transmit from a person to another. This has made it a challenge for organizations to host training sessions. Most companies could not simply just host the usual face-to-face formation sessions like they used to do in the traditional sense, in fact, “organizations are currently forced to shift to online training which can be unaffordable to some organizations” (Mwita, 2020), creating a financial challenge. Moreover, some lines of work are confidential and treat sensitive data, which means the training for their employees requires platforms with strong security systems that cannot be breached, creating a security challenge.

The platforms and tools used need to be able to handle a lot of engagement. For example, when the transition to online education first occurred in 2020, many students and faculty members found themselves facing issues connecting to Zoom/Skype/Google Meet, etc., or joining calls and conferences, simply because those applications were not developed to manage big capacities and support big simultaneous traffic, creating a technical challenge (Johar et. al, 2021). In order to avoid such problems, companies ended up with either: having to invest more money into their workshops or canceling their workshops.

Secondly, virtual training limits the actions of the facilitator(s). In a face-to-face context, a facilitator can monitor the trainees and their progress physically. In the virtual alternative, that is not the case, or at least, it is not as easy. Furthermore, it is challenging to keep your audience

from getting distracted, etc. In fact, another study listing the shortcomings or the disadvantages of online training such as the ones highlighted in this paragraph, argues that virtual training does not have the same effective results as traditional programs do (Rana & Lal, 2014).

Considering the models that previous studies used to study HRM's role in crisis management before, as well as the suggestions of the authors of these studies for future research in this specific field, a new model was created. My contribution will be combining different practices from different models to form a new one and apply it to Moroccan employees in order to investigate how HR teams managed Covid-19 in Morocco. As mentioned before in the introduction, no similar studies have been conducted in the context of Morocco, thus creating a knowledge gap in terms of HRM's role in Covid-19 management within the Moroccan business culture.

## **2.6. Hypothesis development:**

### **2.6.1 Work from home and Job Satisfaction:**

As explained in the first part of this literature review, job satisfaction is an important variable that is both an effect and a result of many organizational variables, from work environment to organizational performance. In fact, older literature argues that satisfaction is a perceptual metric that can be used to evaluate employees' experiences with working from home (Shadur et.al ,1999). According to a recent study about the role of WFH in work-life balance in Indonesia, WFH was found to have a positive impact on Job Satisfaction directly and indirectly (Irawanto et.al, 2021). Furthermore, studies about work from home often use satisfaction as a response measure (Hartman, et al. 1991; Staples, et al. 1999; Baruch, 2000). These findings conform to earlier research work that was conducted about telework's impact on employee satisfaction and productivity (Baker et. Al, 2007). Newer studies share the same sentiment. For example, according to a study that evaluated the relationships between WFH, job satisfaction

and work-life balance, “employees working from home are happier than those who want to at home [but did not have the option]” (Bellmann & Hubler, 2020). However, it is worth mentioning that this relationship is not always a positive one, it depends on the characteristics of the situation. For example, a study about telecommuting, which is another technical term that refers to working from home using the internet/telephone, states that WFH can have a bad impact on job satisfaction and even cause conflict due to uncounted-for work interruptions at home (Jostell & Hemlin, 2018).

These studies have shown that there could be a relationship between both variables, the nature of which (positive or negative) unknown, depending on the context of the study. Indeed, these studies have considered the relationship between these two constructs in the normal or traditional work setting, this means, they were done outside of the context of a crisis, let alone a global health pandemic. It has been shown in the past that both work from home and remote work can have effective results when it comes to maintaining and enhancing productivity, consequently, this affects job satisfaction (Davenport & Pearlson, 1998; McInerney, 1999; Cascio, 2000). As a result, a new interesting research question that arises from the special conditions of the pandemic that the world is currently living in is to see how this latter has affected both WFH as an independent variable and Job satisfaction as a dependent variable and the nature of the relationship between these two.

Studies about the relationship between job satisfaction and work from home during the Covid-19 pandemic are still very rare. In fact, while doing my research, only one or 2 studies were found about this exact relationship. The takeaway from these studies was the difference that gender played in employees’ response to WFH during the crisis. “It is found that before the pandemic, there were no gender differences in self-rated work productivity and job satisfaction. However, during the lockdown, women reported lower work productivity and job satisfaction than men.” (Feng & Savani, 2020). Although our study will not focus on gender and its role in

the evaluation of job satisfaction in response to Covid-19 management practices, it will be taken into consideration for sub-conclusions or additional-results in the testing group differences part of the data analysis section. Same goes for “age,” additional tests will be done to see which age segment reacted best to the management practices considered in our model, as well as for job satisfaction.

**H<sub>1</sub>:** Working from home has an impact on the satisfaction of employees in Morocco during the crisis of Covid-19

With  $H_0: \rho = 0$  and  $H_a: \rho \neq 0$

Where  $\rho$  represents the correlation between WFH and employee satisfaction

## **2.6.2 Digital Transformation/work and Job Satisfaction:**

### **2.6.2.1 DT and Job Satisfaction:**

According to a published study by the academic journal of Computers in Human Behavior, internet technologies “open opportunities to improve performance and job satisfaction” (Castellacci & Viñas-Bardolet, 2019). Moreover, a slightly older study by the same authors concluded that internet technologies, which are used to transform businesses digitally, have a significant impact on satisfaction because of how they improve the management of data, simplify the access and treatment of information, as well as make room for new business activities, and lastly, they make communication easy and enhance professional interactions within the work environment (Castellacci & Viñas-Bardolet, 2017). In addition to that, not only did a study about the relationship between employees’ satisfaction and perception of “technology adoption” in the sector of banking confirm the existence of a relationship between those two variables, but it has also concluded that it is a positive relationship: “almost all the employees, found the overall performance of tech-banking as satisfactory” (Ganguly &

Chattopadhyay, 2020). Overall, most reviewed studies support our hypothesis about the relationship between these two constructs, because “satisfaction with workplace IT has positive effects on employees’ overall job satisfaction” (Wang et al., 2020).

A newer study considered the context of Covid-19 in order to investigate employees’ experience and response to the digital transformation practices adopted during the pandemic and their impact on their psychological state (Ali et.al, 2020). In addition to that, the findings of this study, which focused on education workers, were as follows: “It is found that online work due to the COVID-19 pandemic negatively affected the psychological state of respondents. [As a result,] the participants have perceived weak job satisfaction under these mental conditions [...] in response to the sudden online transformation with multiple challenges as professional, personal, and social” (Ali et. al, 2020). In this study, this relationship was analysed both directly and through a mediating variable: Work from Home. This raises the question of the nature of impact between DT and WFH.

#### **2.6.2.2 Digital Transformation and Work from home:**

Considering the advanced and quick-paced level of technology that our world has achieved in this century, and the nature of modern work requiring numerous digital tasks and operations daily, the relationship between digital transformation and work from home seems logical and obvious in its nature. However, the global pandemic made WFH an obligation as opposed to a choice that a few organizations used to practice. As a result, most businesses found themselves transitioning into a digital transformation focused style overnight as it became “fascinating to see how the lockdown has made most office workers fully embrace digital work tools” (Davidson, 2020, as cited in Richter, 2020). A clear example of the impact that DT has on WFH practices during the pandemic is the fact that multiple organizations, such as Twitter,

have announced future to make WFH an option even outside of lockdowns (Paul, 2020 as cited in Rahman et. al, 2020).

Furthermore, DT during the pandemic has made WFH easier for employees as many were forced to improve their digital literacy and as a result, “employees have become more adept at using digital work tools, which has brought new routines and habits to their lives” (Richter, 2020). On the other hand, according to the same study, the influence that digital transformation practices of lockdown have had on Work from Home is the correction of false assumptions that used to claim that WFH causes a decrease in pace (speed of performing tasks) (Eckhardt et al., 2019), or that employees who work from home are encouraged to be lazy and less productive (Hafermalz, 2020).

While research about this relationship is still very scarce in literature, it is often recommended in the “future studies” parts of published articles covering Work from Home and Job Satisfaction. Indeed, according to a study about the impacts of Digital Transformation on the oil and gas sectors by the Kebangsaan University in Malaysia, the need to continue business during lockdown led workers to continue working from their homes and this also applied to technical support teams and IT staff (Hawash et al. 2020). As a result, multiple digital transformation tasks had to be performed from home and this can go from simple tasks like the “use of new forms, downloading of policies, and performance of other digital transformation processes” to more complicated tasks like the “establishment of hardware and software support related to the technological challenges” of working from home (Gasser et al., 2020; Kuklina & Semkova, 2020). The study then encourages an examination of the influence of these digital transformation procedures on job satisfaction with a focus on the specific impact that they have on WFH (Harding et al., 2020; Mustafa et al., 2020). In our study, this impact of Digital Transformation on Work from Home will be studied in the context of WFH being a mediator

between DT and job satisfaction. Thus, allowing us to examine the impact of DT on JS both directly and partially through WFH too.

**H<sub>2</sub>:** Digital transformation has an impact Work from Home during the crisis of Covid-19

With H<sub>0</sub>:  $\rho = 0$  and H<sub>a</sub>:  $\rho \neq 0$

Where  $\rho$  represents the correlation between Digital Transformation and WFH

### **2.6.3 Performance Management/supervision and Job Satisfaction:**

According to a study that was conducted last year with the objectives of determining the factors that predict good job satisfaction, “performance management was the highest predictor of job satisfaction,” (Van Hoek et. al, 2020). The purpose of this study was to help human resource management design better strategies to improve their employees’ satisfaction and it concluded that there is a significant relationship between these two constructs.

Among some of the most important sub-factors of supervision/performance management practices, there is communication, empowerment, supervisor support, leadership, and the motivation of employees. Indeed, the results of a new study published by the academic Journal of Management and Marketing reveal that “empowerment was an important subject for the employees which makes them satisfied with their jobs. [In addition to that,] Communication and motivation were significant indicators that have affected job satisfaction.” (Zardasht et. al, 2020). Another study found that effective performance management enhances work engagement and thus, increases job satisfaction and reduces employee turnover (Kakkar et. al, 2020), highlighting the impact that performance management has not only on job satisfaction, but also on employee turnover intentions. Different research explored the relationship between job satisfaction and supervisor support in the health sector and revealed similar results since the

“primary outcome was a strong correlation between job satisfaction and perceived supervisor support, [...] showing a significant relationship” (Winarto & Chalidyanto, 2020).

Another aspect of performance management is leadership. It is also important for the managers to express this latter genuinely. In fact, according to a study about the well-being of hotel employees in India during the pandemic, “the genuineness and honesty of the hotel leaders mitigated the impact of Covid” (Agarwal, 2021). A study conducted last year in Jordan investigated the relationship between transformational leadership and job satisfaction in the context of Covid-19. Before discussing the findings of this study, let us first define “transformational leadership.” Based on the definition of the official Cambridge dictionary, it refers to “bringing big improvements to how an organization operates in which executives persuade managers and employees to work in completely new ways” (Cambridge dictionary, 2021). This makes this concept very relevant in the context of working during the crisis of Covid-19, since supervisors had to manage their subordinates while introducing new practices and policies. The findings of this study revealed that there is a strong positive relationship between transformational leadership and job satisfaction. Furthermore, it stated, “despite Covid-19, transformational leaders help employees work effectively and increase employee’s job satisfaction and organizational commitment.” (Almohtaseb et al., 2021).

**H<sub>3</sub>:** Performance management & supervision has an impact on Employees’ satisfaction during the crisis of Covid-19

With  $H_0: \rho = 0$  and  $H_a: \rho > 0$

Where  $\rho$  represents the correlation between PM & supervision and employee satisfaction

#### **2.6.4 Employee training/development and Job Satisfaction:**

According to a study about the impacts of internal marketing on employees, “Training and employee development have the highest impact on job satisfaction, followed by motivation, empowerment and communication, respectively.” (Al-Hawary et al., 2013). The purpose of this study was to determine the most impactful practices of internal marketing. Internal marketing refers to practices used by an organization to promote itself to its employees, with the purpose of engaging them more. The practice that was found to have the most significant positive relationship with job satisfaction in this study was in fact, employee training.

In addition to that, a Malaysian study with the purpose of identifying the relationships between training programs and job satisfaction and job performance has found that “training is statistically significant and has a strong relationship with job performance and job satisfaction” (Kanapathipillai & Azam, 2020). Moreover, due to the timing of this study, it also considered job satisfaction in the context of Covid-19 and consequently, pointed out “by undertaking continuous training, companies could rise against the economic problems caused by Covid-19 and continue to survive and flourish” (Kanapathipillai & Azam, 2020).

By using job satisfaction as a mediator variable between “perceived development” and “intent to stay,” researchers Kasdorf & Kayaalp “provided further evidence that employee development is an effective intervention to reduce turnover and increase job satisfaction” (2021). This is explained by the impact that training has on increasing employee resources, for example skills and competence, and consequently, this leads to job satisfaction, which then leads to low turnover intentions.

A lot of studies in different sectors had similar results. For example, in the health sector, research with the purpose of determining the managerial implications needed to increase job satisfaction and employee loyalty listed “training and promotion opportunities” as a significant

factor (Vuong et al., 2021). Likewise, in the banking sector, “training has significant association with the level of job satisfaction of the employees with their pay, work itself and interpersonal relationship.” (Ullah et. al, 2020).

Clearly, the literature shows that not only is there a relationship between employee development and job satisfaction, but it is a significantly positive one. Knowing how challenging the circumstances of Covid-19 were, providing training was very difficult or had to adapt to the special nature of the pandemic (for example: virtual training replacing traditional one, canceling training, etc). Considering these new developments, our study aims to see the impact that this specific managerial practice, or its absence, has had especially in the middle of the Coronavirus crisis on job satisfaction.

**H<sub>4</sub>:** Training and development of employees has a positive impact on employees’ satisfaction during the crisis of Covid-19

With  $H_0: \rho = 0$  and  $H_a: \rho > 0$

Where  $\rho$  represents the correlation between training employees and employee satisfaction

## **2.7. Research Model:**

### **2.7.1 The aim of the research:**

The fast spread of the Coronavirus pandemic has changed the workplace environment unexpectedly, and overnight, businesses found themselves facing new challenges to continue operating and being active. During this period, job satisfaction of employees, which has always been a relevant topic due to the constantly changing nature of its factors and its strong positive impact on job performance (Wu et al., 2017), became even more relevant as businesses faced the challenge of retaining their employees and maintaining business continuity. As a result,

many establishments turned to their crisis management plans and with the help of HR departments tried to cope with the pandemic. These management plans differ based on culture, sector, country, etc. Because of this, a new knowledge gap was created in terms of the practices that management in Morocco have used to face this global health crisis to keep up job satisfaction, and as a result, maintain good job performances.

This study has two main aims: The first one is to identify the implications of the global pandemic of Covid-19 on crisis management practices while highlighting the important role of the participation of human resources in this crisis management. These practices include working from home and remote working trends, the adoption or acceleration of digital transformation mechanisms, employee re-skilling and training, and performance management by supervisors or their subordinates. The second aim is to investigate the impact of each of these four practices on employee satisfaction from the perspective of Moroccan employees who were/are active during Covid-19.

**2.7.2 The proposed research model:**

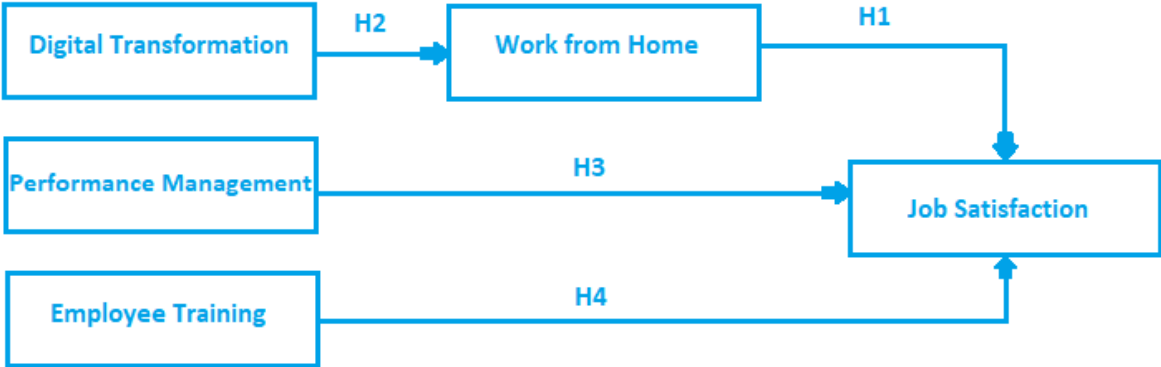


Figure 1: Research Model

### 2.7.3 The proposed hypotheses of the research:

#### 2.7.3.1 Variables definition:

- **Digital Transformation, DT:** It is defined as a digital disruption in the business model that leads to innovative ways to improve it using new technologies; however, in our study we are discussing DT during a pandemic, so in this context the new definition becomes the response of business models to reduce the risks of the pandemic's disruption of business operations (Datta & Nwankpa, 2021).
- **Work From Home, WFH:** it refers to employees doing their tasks from their homes instead of the traditional workplace.
- **Performance Management, PM:** it refers to the techniques used by management to positively influence employee performance (Chanana, 2020).
- **Employee Training, T:** It is defined as the efforts that organizations make to enhance the skills and capacities of their employees that they need to perform their job well with the purpose of improving their job performances (Rodriguez & Walters, 2018)
- **Job Satisfaction, JS:** it is defined as the emotional response of employees towards their job in terms of how much they like it (Siegal & Lance, 1987).

#### 2.7.3.2 Research Hypotheses:

**H<sub>1</sub>:** Working from home has an impact on job satisfaction of employees in Morocco during the crisis of Covid-19

**H<sub>2</sub>:** Digital transformation has an impact on Working from Home during the crisis of Covid-19

**H<sub>3</sub>:** Performance management has a positive impact on Employees' satisfaction during the crisis of Covid-19

**H4:** Training and development of employees has a positive impact on employees' satisfaction during the crisis of Covid-19

### 2.7.3.3 Hypotheses' literature support:

Table 1: Hypotheses support

<b>Hypothesis</b>	<b>Sources of support</b>	<b>Variables</b>
<b>H1</b>	(Hartman, et al. 1991) - (Staples, et al. 1999) (Baruch, 2000) - (Baker et. Al, 2007) (Jostell & Hemlin, 2018) - (Irawanto et.al, 2021) (Bellmann & Hubler, 2020)	Work from Home and Job Satisfaction
<b>H2</b>	(Davidson, 2020) - (Richter, 2020) (Eckhardt et al., 2019) - (Gasser et al., 2020) (Kuklina & Semkova, 2020) (Harding et al., 2020) - (Mustafa et al., 2020)	Digital Transformation and Work from Home
<b>H3</b>	(Van Hoek et al., 2020) (Zardasht et al., 2020) (Kakkar et al., 2020) (Almohtaseb et al., 2021)	Performance Management and Job Satisfaction
<b>H4</b>	(Kasdorf & Kayaalp, 2021) (Ullah et al., 2020) - (Vuong et al., 2021) (Al-Hawary et al., 2013) - (Kanapathipillai & Azam, 2020)	Training and Job Satisfaction

### **3. Methodology:**

#### **3.1. Research settings:**

Because this study is correlation-al in nature, it was conducted with minimal interference from me, and it was done in its natural environment. Therefore, the setting was non-contrived. This means that the data describing Moroccans' experience and satisfaction levels during the pandemic was collected from their normal routine and environment. The unit of analysis here is individuals because each survey response was treated and collected individually. The data collection was done in a one shot / cross sectional fashion.

#### **3.2 Methodology and research design:**

Since this research is quantitative, a "Survey research" strategy is followed in order to measure the job satisfaction levels of Moroccan employees during the crisis of Covid-19, in response to popular crisis management practices taken by their companies. The survey was a self-administered questionnaire that was designed online using Google forms and shared online as well as on social media. It was later analyzed using the statistical software programs SPSS and SmartPLS. More details about this process and analysis will be elaborated and explained in the data analysis section of this thesis dissertation.

To test the hypotheses, a partial least squares modeling analysis was conducted on the data collected using a questionnaire that was designed and developed in order to test our four hypotheses. Because it is advised to use items from older studies, our survey borrowed 20 questions from past studies and 6 demographic questions for a total of 26 items. This was done in order to guarantee the content validity of the scales and to cut down the bias in our research. Because our model has five constructs, the items were selected and adapted to cover all the constructs of our model with a few of them being slightly modified to fit our new study better. The sampling is random, and the responses came from one location only – Morocco. This

location was chosen due to the lack of studies about this topic in it as explained earlier in the contribution section of this dissertation.

In order to make sure that the questionnaire is valid, two pilot test studies were conducted to test the items by collecting preliminary data and analyzing it. After the results of the first pilot test, the questionnaire was re-designed to reflect the purpose of the study better and take into consideration the feedback of the pilot test participants. For example, the nationality question was changed from a short answer to a multiple-choice question; a new demographic question was added to measure the size of the company. After that, the second pilot test was done and after getting valid and reliable results (more on this will be shared in detail in the analysis section), the first version of the survey was finalized. After that, using the new survey, a model's fit analysis was conducted to further improve the model and paths between the constructs, leading to our current final survey of 26 items and 5 variables. More details about this process will be shared in the data analysis part.

Furthermore, because our study targets Moroccan citizens, the survey needed to be localized. Because French is the official administrative and professional language used in Morocco, our survey had to use French items. This was done using two methods. The first method was to find the available French equivalent of the items in published older studies that have already been validated. This is not a problem for famous theories and old scales. For us, the famous scale used was the one for Job Satisfaction, the commonly known scale as the "Job Satisfaction Index" by Brayfield & Rhode (1951). The other items of our study, especially those that are specifically about "Covid-19," do not have French versions available yet in the literature since this is a new topic and research concerning it has not been translated into local languages yet. Consequently, we ourselves had to localize those items and provide a valid translation of the scales used.

In order to ensure the validity of the French version of the survey, we followed the “Back translation” method that was validated by Vallerand in 1989. The purpose of this method is to validate the French versions of the scales. The aim here is to ensure that the translated items used are similar and seek the same answers as those of the original version.

The main steps of this method are 1) initial translation, 2) back translation, 3) matching of the versions, 4) modifications if needed and finalization of the translation. Therefore, for the first step, the initial translation was done by the researcher as well as fellow colleagues, all of whom are bilingual and speak fluent French and English.

The second step is back translation. This means translating the translated version back to the original language without having access to the original version. To do this, the French version was given to a professional translator who is credited by the government and who has no association with our study or any conflicts of interest. More importantly, he has never seen the original version of the French survey he was asked to translate. This professional translator translated the French version back into English for us.

The third step was to compare this new English translation to the original English survey and verify if they match. Luckily, both versions matched from the first try and thus, the French version was found consistent and matching. Therefore, after the successful back-translation/match up process, the French survey was validated and ready to be distributed. You can find the sources of all the items of our survey in table 2, and both the English items and French items in Appendix 1 and Appendix 2. A picture of the official back-translation document is also available in Figure 8 at the end of this

Our study aims to know the implications that Covid-19 management practices had on the job satisfaction of Moroccan employees; therefore, the population for our questionnaire is Moroccans who were/are employed during the Covid-19 crisis. The questionnaire was

distributed online on all accessible social media platforms we had access to (Facebook, Whatsapp, Linkedin and Instagram). Our survey got a total of 187 responses, 122 from the French version that was emailed to the members of my bachelor’s degree Alumni Association (Computer Science graduates), thus making 65% of the responses coming from the IT sector, while the remaining 65 responses came from the English version survey that was shared on social media platforms, coming from 35% of unspecified sectors.

Table 2: Sources of items

<b>Construct</b>	<b>Number of items</b>	<b>Sources</b>
Work from home (WFH)	5 items	<ul style="list-style-type: none"> <li>- Al-Marzooqi and Al-Aamer (2020)</li> <li>- Raman and Saranya (2020)</li> <li>- Narayanamurthy &amp; Tortorella (2021)</li> </ul>
Digital Transformation	4 items	<ul style="list-style-type: none"> <li>- Raman and Saranya (2020)</li> <li>- Narayanamurthy &amp; Tortorella (2021)</li> <li>- Bregenzer &amp; Jimenez (2021)</li> <li>- Danilova et. Al (2020)</li> </ul>
Performance management	4 items	<ul style="list-style-type: none"> <li>- Huq (2021)</li> <li>- Gigauri (2020)</li> </ul>
Training and employee development (TDE)	3 items	<ul style="list-style-type: none"> <li>- Gigauri (2020)</li> <li>- Rahman and Nas (2012)</li> </ul>
Job Satisfaction during Covid (JS)	4 items	<ul style="list-style-type: none"> <li>- Brayfield &amp; Rhode (1951)</li> <li>- Al-Marzooqi and Al-Aamer (2020).</li> </ul> <p>French version: Judge et. al (1998)</p>

### **3.3 Sampling and data collection:**

Among the survey's final 26 items, 20 questions were designed to cover the model's constructs, referred to for the rest of this dissertation as WFH (Working from home), DW (Digital Transformation), PM (Performance Management), T (Employee Training and development) and JS (Job Satisfaction). However, the last 6 questions were used to learn more about the profile of our respondents and their demographics: gender, nationality, age and their level of education. Because this is a business study, the fifth demographic question was about the size of the organization they work in since this can influence management and its roles. This specific question was designed using the European Commission's division of enterprises. The European Commission, as defined in its own official website, is "the governmental branch of the European Union" (2021). It divides enterprises based on their size. Micro enterprises have less than 10 employees. Small enterprises have between 10 and 50 employees. Medium-sized enterprises have between 51 and 250 employees and lastly, big enterprises have more than 250 employees (OECD, 2021).

#### **3.3.1 Instruments for the Job Satisfaction measurement:**

20 items were used for the constructs. You can find all of them in the appendices 1 & 2 below. Among these 20, 4 items were used for the Job Satisfaction construct, which were provided in French and English. Three of these items were taken from the famous Job Satisfaction Index that was designed by Brayfield & Rhode in 1951. However, in 1998, a group of researchers reduced this original scale from 18 items to 5 items only and then ensured the validity and reliability of the new short version (Judge et.al, 1998). In their study, the short version of the scale had a reliability average of 0.88. The French equivalent of the short-version JSI was adopted from a Swiss study released last year with a reliability alpha of 0.9 (Stalder et. al, 2020). For our study, 3 of those items were used and another item was added that specifically asks about satisfaction towards management's response to Covid-19. This item is "In general, I am satisfied with the decisions

taken by my organization to combat the spread of the Coronavirus” and it was designed last year for a published research paper about “Workers Perceptions during Covid-19” (Al-Marzooqi & Al-Aamer, 2020). Because of the new update of this scale, the validity & reliability of this scale was re-done and will be shared in the validity and reliability section of this data analysis.

### **3.3.2 Instruments for the Work from Home measurement:**

For WFH, 5 items were taken from older studies released last year (Raman & Saranya, 2020; Al-Marzooqi & Al-Aamer, 2020; Narayanamurthy & Tortorella, 2021) with one modification: one item was removed since the original scale had 6 items. This scale was first validated during the pilot test study with 31 participants and had a cronbach alpha of reliability of 0.879. An example of an item of this scale as well as their validated French translation is: “The nature of my work allows working from home” (Al-Marzooqi & Al-Aamer, 2020). And its French equivalent is “ La nature de mon travail me permet de travailler à domicile.” After the modification of this scale, the validity and reliability were redone, and you can find it in the validity and reliability section of the data analysis.

### **3.3.3 Instruments for the Digital Transformation measurement:**

For DW, once again a 5-point Likert scale was used. This construct has 4 items. They were adopted from published research about digital transformation during the global pandemic (Raman & Saranya, 2020; Narayanamurthy & Tortorella, 2021; Bregenzer & Jimenez, 2021). These items were adopted and modified in order to measure employees’ satisfaction during Covid-19 towards the digital infrastructure and facilities at their work, the technical support they receive, digital contact, virtual work and the resulting productivity. They were pre-tested during the pilot test to check their validity and reliability. The found alpha at the time was 0.857. After the completion of the data collection, the validity and reliability were redone and you can find it in the validity and reliability section of the data analysis. A sample item from this scale is “The virtual work,

with only digital contact between me and my colleagues, has increased the productivity of my workday” (Bergenzer & Jimenez, 2021).

### **3.3.4 Instruments for Employee Training:**

For employee training and / or development, 3 items were adopted and adapted from 2 previous studies. The first item is a multiple-choice question asking the respondents to estimate the number of hours of training they received/were given during the pandemic: no training at all, less than 2 hours of training, between 2 and 4 hours, between 4 and 6 hours, more than 6 hours of training (Gigauri, 2020). The other 2 items come from an older study about “Employee development perception.” An example from these items is: “Organization’s developmental efforts have improved my self-awareness, competencies, and employability” (Rahman & Nas, 2012), and the French equivalent for this item was “Les efforts de développement de l'organisation ont amélioré ma conscience de soi, mes compétences et mon employabilité.” During the pilot study, the alpha of this scale was found to be 0.883. After the completion of the data collection of 187 respondents, the validity and reliability were redone, and you can find it in the validity and reliability section of the data analysis.

### **3.3.5 Instruments for the Performance Management measurement:**

Lastly, for the construct of Performance Management, 4 items were developed. These items were also taken from older and published studies. In her capstone project about how Covid-19 has changed policies of the workplace, researcher Soha developed a 4-item scale to measure performance management specifically during the pandemic (Huq, 2021). We adopted the same items and then replaced the 4<sup>th</sup> with another item from another study: “Managers have communicated adequately to the employees about/during the pandemic” (Gigauri, 2020). During the pre-test, the updated scale had a cronbach alpha of 0.760. After the modification of this scale

and the completion of the collection of the full dataset, the validity and reliability were redone, and you can find it in the validity and reliability section of the data analysis.

### **3.4. Variable measurement:**

For this study, the questions were scaled using a five-point Likert scale in which 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and finally 5 = Strongly agree.

The French version used is as follows:

1 = pas du tout d'accord, 2 = pas d'accord, 3 = Ni d'accord ni pas d'accord, 4 = D'accord, 5 = Tout à fait d'accord.

This scale was chosen because it is “one of the most fundamental and frequently used psychometric tools in educational and social sciences research and it focuses on issues like validity, reliability and analysis of the scale” (Joshi et. al, 2015).

You can find in Appendices 1 & 2 at the end of this dissertation, the questions with their sources and links.

### **3.5 Research findings:**

#### **3.5.1 Descriptive analysis:**

Before analyzing the structural data, a descriptive analysis was done to the demographic variables of our study: age, gender, nationality, marital Status, education and company Size, with the objective of providing a close-up insight of the profile of the study's respondents.

First, the survey got 187 responses. It was distributed online to Moroccans only. 122 of these responses, which makes 65% of the total participation, came from IT alumni while the remaining 65 responses came from mixed sectors. To ensure that the participation came only from Moroccans, a nationality question check was included in the survey in order to remove any non-

Moroccan answer. Eventually, no responses were removed as they all came from Moroccans.

Table 3 shows details of the descriptive data.

Table 3: Descriptive statistics of the demographic questions

	<b>Gender</b>	<b>Age</b>	<b>Nationality</b>	<b>Status</b>	<b>Education</b>	<b>Size</b>
<b>N valid</b>	187	187	187	187	187	187
<b>N missing</b>	0	0	0	0	0	0
<b>Mean</b>	1.47	2.51	1.00	1.57	3.43	3.35
<b>Median</b>	Female	24 - 40	Moroccan	Married	Master	above 250
<b>Std. Dev</b>	0.50	0.84	0.00	0.50	1.36	1.27
<b>variance</b>	0.25	0.70	0.00	0.25	1.85	1.62

In addition to that, this analysis informed us that most of the respondents identify as women with a high percentage of 52.9% (99 of the responses). The dominating age group that took the survey is between 24 and 40 years old which makes a percentage of 46% of the entire total, as it was shown in the pie chart displayed in figure 2. Also, 56.7% of the respondents specified that they are married. Unexpectedly, 134 of the respondents, which makes the majority, were revealed to have a high degree in education. In fact, 71.6% of the total responses came from people with at least a bachelor's degree. However, the dominating education level was a master's degree with a percentage of 27.8% which equates to around 52 participants, as you can see in figure 3.

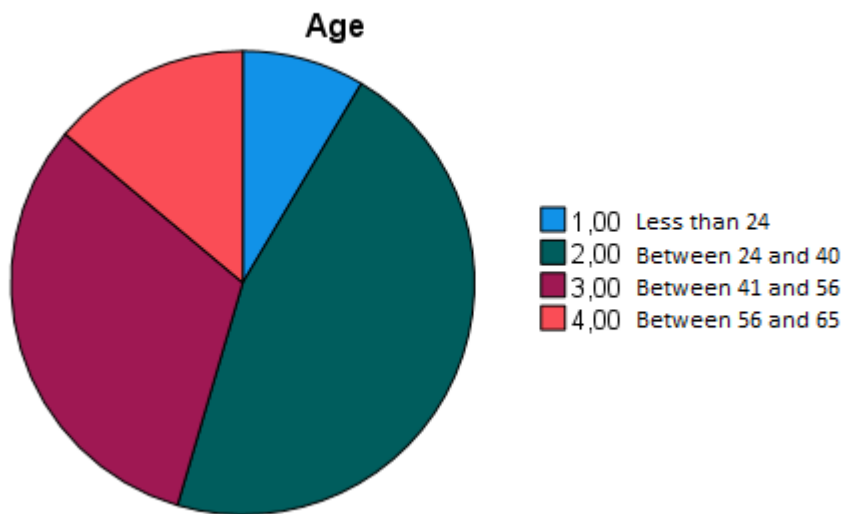


Figure 2: Pie chart of the Age distribution

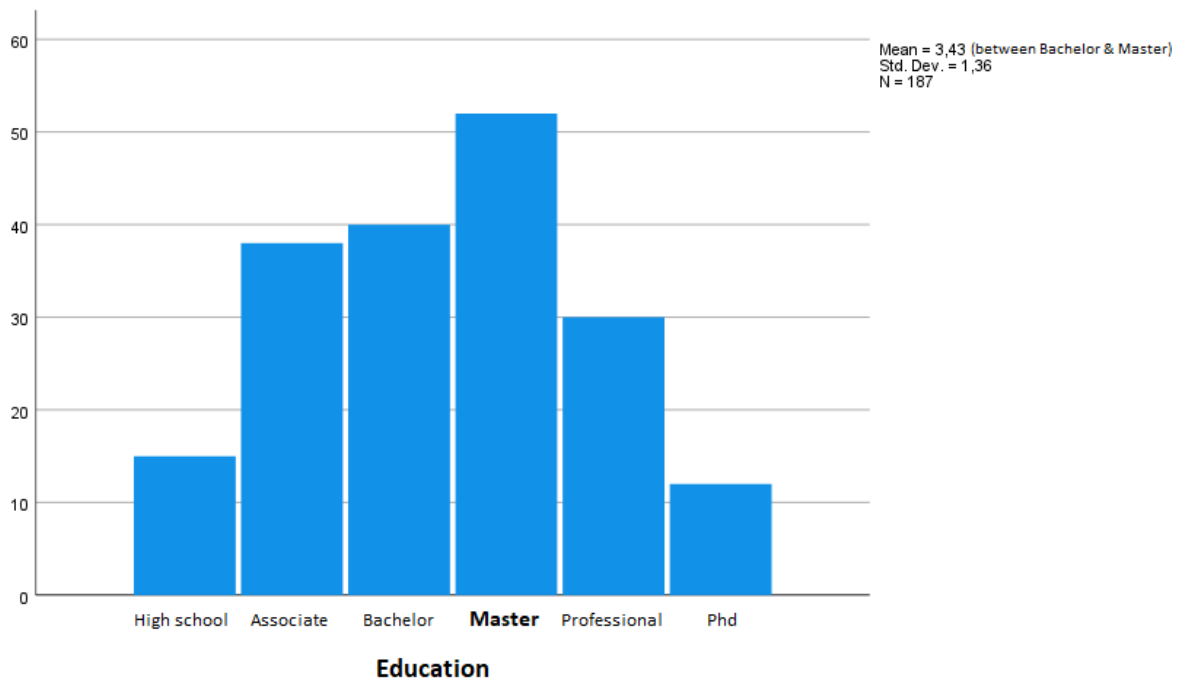


Figure 3: Histogram of the Education distribution

As for the size of the company, this demographic question was added since the study involves management. The descriptive analysis revealed that 29.9% of the total responses came from

employees of big corporations that have more than 250 employees, while 21.4% (40 participants) did not know the exact size of their company. Some of these distributions were illustrated in the pie charts below, figures 4, 5 and 6.

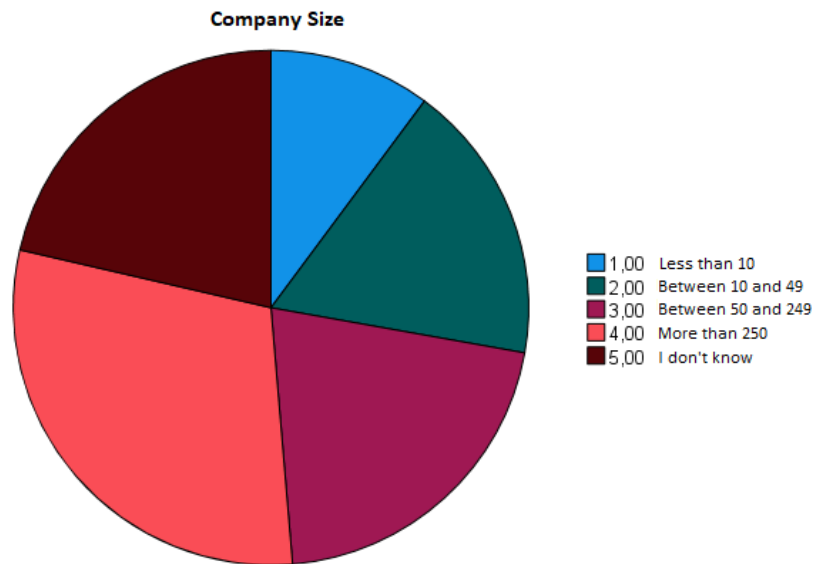


Figure 4: Pie chart for the Size distribution

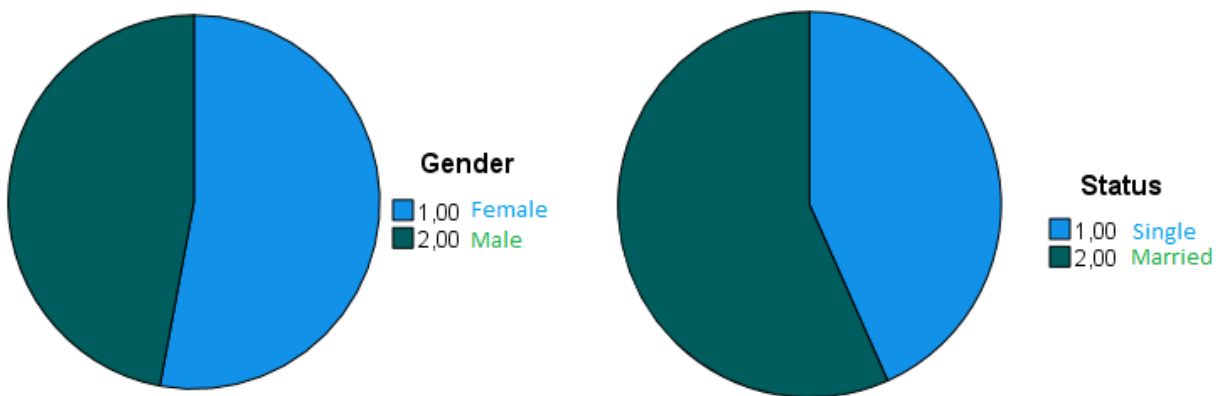


Figure 5: Gender and Status distributions

In conclusion, based on these demographic statistics, the **average profile** of a participant in our study would be: A Moroccan female of an age between 24 and 40 years who is married, has a master's degree and works in an organization of over 250 employees. You can see the detailed distributions of each attribute alongside their distributions in table 4.

Table 4: Frequency table for the demographic attributes

Attributes	Distribution	Frequency	Frequency %
<b>Gender</b>	1: Female	99	<b>52.9%</b>
	2: Male	88	47.1%
<b>Age</b>	1: Less than 24	16	8.6%
	2: 24-40	86	<b>46%</b>
	3: 41-56	59	31.6%
	4: 57-65	26	13.9%
<b>Education</b>	1: High school	15	8%
	2: Associate	38	20.3%
	3: Bachelor	40	21.4%
	4: Master	52	<b>27.8%</b>
	5: Professional degree	30	16%
	6: Doctorate	12	6.4%
<b>Marital status</b>	1: Single	81	43.3%
	2: Married	106	<b>56.7%</b>
<b>Size of the company</b>	1: Less than 10	19	10.2%
	2: 10 – 49	33	17.6%
	3: 50 – 249	39	20.9%
	4: More than 250	56	<b>29.9%</b>
	5: I don't know	40	21.4%

### 3.5.2 Analysis of the constructs:

Before getting into the constructs analysis, here is an example descriptive of one structural item. This item was chosen to be discussed here on purpose due to what it measures and how its distributions and frequencies might help us predict the conclusions that the actual data analysis of the structural model (the sections after this paragraph), will either confirm or deny. For example, the answers of the item WFH5: “In general, I am satisfied with the experience of work-from-home [during Covid-19],” had 121 answers of just “agree” (color pink in the pie chart) and “strongly disagree” (color dark red in the pie chart), which makes for 64.7% of all the participants, as illustrated in figure 6 and table 5. So, it seems logical to predict a positive relationship between WFH and Job Satisfaction, but we will see what the actual results of the bootstrapping analysis will say.

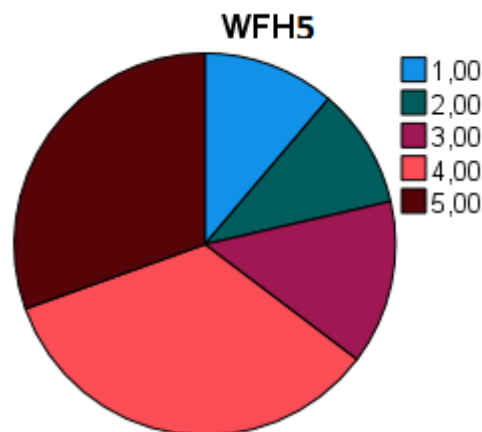


Figure 6: The distribution of the answers of item WFH5

Table 5: Frequencies of WFH5 answers

Answer	Frequency	Percentage%
1: strongly disagree	21	11.2
2: disagree	19	10.2
3: neutral	26	13.9
<b>4: agree</b>	<b>64</b>	<b>34.2</b>
<b>5: strongly agree</b>	<b>57</b>	<b>30.5</b>

### 3.5.2.1 Normality Distribution test:

In order to check the distribution and shape of our data, one can do a normality test using a Kurtosis and Skewness statistical analysis, and/or a histogram for a graphic analysis. According to literature, the results of the kurtosis and skewness test should be between -1.5 and 1.5 to be considered acceptable, otherwise the data needs to be transformed and outliers should be verified (Tabachnick & Fidell, 2012). In our case, all the values for all items are within the acceptable range as you can see from tables 6 to 10 below.

Table 6: Skewness & Kurtosis results for work from home:

	<b>WFH1</b>	<b>WFH2</b>	<b>WFH3</b>	<b>WFH4</b>	<b>WFH5</b>
<b>N items Valid</b>	187	187	187	187	187
<b>N items Missing</b>	0	0	0	0	0
<b>Skewness</b>	<b>-0.697</b>	<b>-0.727</b>	<b>-0.408</b>	<b>-0.701</b>	<b>-0.757</b>
<b>Std. Error of Skewness</b>	0.178	0.178	0.178	0.178	0.178
<b>Kurtosis</b>	<b>-0.831</b>	<b>-0.675</b>	<b>-1.006</b>	<b>-0.663</b>	<b>-0.564</b>
<b>Std. Error of Kurtosis</b>	0.354	0.354	0.354	0.354	0.354

Table 7: Skewness & Kurtosis results for digital transformation:

	<b>DT1</b>	<b>DT2</b>	<b>DT3</b>	<b>DT4</b>
<b>N items Valid</b>	187	187	187	187
<b>N items Missing</b>	0	0	0	0
<b>Skewness</b>	<b>-0.691</b>	<b>-0.619</b>	<b>-0.613</b>	<b>-0.270</b>
<b>Std. Error of Skewness</b>	0.178	0.178	0.178	0.178
<b>Kurtosis</b>	<b>-0.593</b>	<b>-0.942</b>	<b>-0.862</b>	<b>-1.048</b>
<b>Std. Error of Kurtosis</b>	0.354	0.354	0.354	0.354

Table 8: Skewness & Kurtosis results for performance management:

	<b>PM1</b>	<b>PM2</b>	<b>PM3</b>	<b>PM4</b>
<b>N items Valid</b>	187	187	187	187
<b>N items Missing</b>	0	0	0	0
<b>Skewness</b>	<b>-0.526</b>	<b>-0.471</b>	<b>-0.437</b>	<b>-0.694</b>
<b>Std. Error of Skewness</b>	0.178	0.178	0.178	0.178
<b>Kurtosis</b>	<b>-0.814</b>	<b>-0.866</b>	<b>-0.803</b>	<b>-0.476</b>
<b>Std. Error of Kurtosis</b>	0.354	0.354	0.354	0.354

Table 9: Skewness & Kurtosis results for training:

	<b>T1</b>	<b>T2</b>	<b>T3</b>
<b>N items Valid</b>	187	187	187
<b>N items Missing</b>	0	0	0
<b>Skewness</b>	<b>0.325</b>	<b>-0.232</b>	<b>-0.313</b>
<b>Std. Error of Skewness</b>	0.178	0.178	0.178
<b>Kurtosis</b>	<b>-1.122</b>	<b>-1.193</b>	<b>-1.008</b>
<b>Std. Error of Kurtosis</b>	0.354	0.354	0.354

Table 10: Skewness & Kurtosis results for job satisfaction:

	<b>JS1</b>	<b>JS2</b>	<b>JS3</b>	<b>JS4</b>
<b>N items Valid</b>	187	187	187	187
<b>N items Missing</b>	0	0	0	0
<b>Skewness</b>	<b>-0.512</b>	<b>-0.758</b>	<b>-0.181</b>	<b>-0.537</b>
<b>Std. Error of Skewness</b>	0.178	0.178	0.178	0.178
<b>Kurtosis</b>	<b>-0.571</b>	<b>-0.129</b>	<b>-1.146</b>	<b>-0.416</b>
<b>Std. Error of Kurtosis</b>	0.354	0.354	0.354	0.354

### 3.5.2.2 Validity and Reliability tests:

According to literature, validity is used in quantitative studies to make sure that the variables' measurement is accurate (Heale & Twycross, 2015). It can be tested using different methods. Two of the most used methods in literature are content validity and construct validity.

Content validity checks if “the instrument used adequately covers all the content that it should with respect to the variable” (Heale & Twycross, 2015). Whereas construct validity is “the accumulation of evidence to support the interpretation of what a measure reflects” (Cronbach & Meehl, 1955).

For our study, and since all the items of our survey were borrowed from previous literature, the content validity is considered already done from these past studies. As far as construct validity goes, two types of validity were tested using a convergent validity analysis and a discriminant validity analysis. First, the purpose of convergent validity is to verify “how closely the new scale is related to other variables and other measures of the same construct” (Krabbe, 2017). This can be measured using factor loadings which measure the coefficients of correlation and average variance extracted. For factor loadings the values are considered acceptable when higher than 0.50 but preferably higher than 0.70 (Benitez et al. 2020). In our study, the lowest values were 0.541 (for T1) and 0.726 (for JS4). You can see the loadings for each item in table 10. Thus, all the values are acceptable except for T1, they are all above the recommended 0.700 and within the “good range”. As for the average variance extracted, AVE, all the values are well above 0.5 as recommended in the literature (Hair et al., 2014). You can see the AVE value for each item in table 11.

Table 11: Loadings, Cronbach alpha, composite reliability and AVE of all items

<b>Constructs</b>	<b>Items</b>	<b>Loadings</b>	<b>Cronbach Alpha</b>	<b>Composite Reliability</b>	<b>AVE</b>
<b>Work from home (WFH)</b>	WFH1	0.797	0.903	0.928	0.722
	WFH2	0.897			
	WFH3	0.870			
	WFH4	0.785			
	WFH5	0.892			
<b>Digital Transformation (DT)</b>	DT1	0.864	0.901	0.930	0.769
	DT2	0.901			
	DT3	0.892			
	DT4	0.850			
<b>Performance Management (PM)</b>	PM1	0.898	0.935	0.953	0.836
	PM2	0.929			
	PM3	0.916			
	PM4	0.913			
<b>Training (T)</b>	T1	0.541	0.760	0.856	0.677
	T2	0.927			

	T3	0.938			
<b>Job Satisfaction (JS)</b>	JS1	0.889	0.836	0.891	0.673
	JS2	0.844			
	JS3	0.812			
	JS4	0.726			

For discriminant validity, multiple methods can be used, such as Fornell Larcker, cross loadings and Heterotrait-Monotrait ratio (HTMT) with the latter being the most effective approach (Henseler et al., 2015). Consequently, for this study, the HTMT approach was followed to test the discriminant validity of our constructs. According to literature, this value should be below 0.90 (Hair et al., 2017) or even 0.85 in more strict literature (Kline, 2011). Our study passes this test as all the values are in fact below the mentioned thresholds, which means that discriminant validity has in fact been established. You can see the HTMT values for each construct in table 12.

Table 12: Results of the HTMT test

	DT	JS	PM	T	WFH
Digital Transformation (DT)					
Job Satisfaction (JS)	0.555				
Performance management (PM)	0.728	0.578			
Training (T)	0.669	0.621	0.574		
Work from home (WFH)	0.642	0.487	0.447	0.387	

The next step covers reliability. This test measures the consistency of a scale. According to past literature, reliability is a requirement for validity (Nunnally & Bernstein, 1994). To ensure reliability, Cronbach alpha is calculated but since recent research suggests that relying on Cronbach alpha alone is now considered an old method and instead modern papers recommend using both alpha and composite reliability (CR), both measures were calculated for our study. For alpha/CR, an acceptable value is above 0.61, with values above 0.71 being preferred (Thompson, 2004). For our 5 constructs, all the Cronbach alpha/CR values were found to be above 0.760. Also, the alpha values and CR values were found to be close for each item, demonstrating internal consistency. You can see all the detailed values in table 11 above this paragraph.

### 3.5.2.3 Model's goodness of fit:

In order to draw conclusions using the observed data, we first need to assess the fitness of our model by comparing the observed data to the predicted data and test if they are related. This

can be accomplished using statistical approaches that check model's fitness like Chi square or residuals (Kéry & Royle, 2016). Basically, this test determines if the assumed model accurately approximates the real events that our data is expected to reflect (MacCallum, 1990). This comparison is done against another model, in our case, the comparison was done against a saturated model. A saturated model is a model that considers all possible paths, and therefore, it always fits (Jamshidian & Mata, 2017).

The name of the specific technique used in the goodness of fit analysis in our study is the SRMR approach, which stands for: The Standardized Root Mean Squared Residual. Recent research determined that this technique “has shown that more accurate confidence intervals and tests of close fit are obtained using SRMR than others like RMSEA which only provides accurate results in small models” (Maydeu-Olivares et al., 2017).

For our study, the analysis was done on SmartPLS which provides 5 measures of Fit. The most important ones being SRMR which should be below 0.08 (Benitez et al., 2020) and NFI, the closer to 1 the better (Lohmöller, 1989). For us, the SRMR value of the estimated model was found to be 0.065 and the NFI value 0.846. You can see the details of these results in table 13 below.

Table 13: SRMR results for our model

	Saturated Model	Estimated Model
SRMR	0.065	<b>0.065</b>
d_ULS	0.887	0.889
d_G	0.390	0.390
Chi-Square	441.699	441.705
NFI	0.846	<b>0.846</b>

### 3.5.3 Analysis of the structural model:

Using SmartPLS 3.3.5, a structural analysis was done to analyze our model. Using a bootstrapping technique with 5000 resamples, a path analysis and hypothesis testing was conducted, as suggested in literature (Henseler et al., 2009).

In academic research, a significance level value of 0.05 is commonly used to reject a null hypothesis if the p-value is equal to or less than 0.05 with a t-value above 1.96 (Fisher, 1955; Jakobsen et al., 2014). Moreover, there has been a debate concerning the accuracy of this threshold of significance for decades within academic research and consequently, several researchers now suggest using a threshold of 0.005 instead of 0.05 (Benjamin, et al., 2018). For our research, the new and updated threshold of significance is considered since it's lower than 0.05, which means any value that is below the new threshold of 0.005 will automatically be below the old threshold of 0.05 as well. As mentioned in the theoretical framework section, the first proposed hypothesis was Digital transformation (DT) having an impact on Working from

Home (WFH) during the crisis of Covid-19. Indeed, the results support and accept this hypothesis as DT has a positive and significant impact on WFH with p-value = 0.000 and a t-value = 12.519. As a result, **H<sub>1</sub>** is accepted, as it can be seen in table 14.

The second hypothesis was that of WFH having an impact on job satisfaction (JS) of employees in Morocco during the crisis of Covid-19 and indeed, results showed a strong and significant relationship between WFH and JS with p-value = 0.001 and t-value = 3.248. As a result, H<sub>2</sub> is accepted, as it can be seen in table 14.

The third hypothesis suggests that Performance management (PM) has a positive impact on Job satisfaction (JS) during the crisis of Covid-19. The results of the testing support this claim with a p-value of 0.002 and a t-value of 3.310, confirming that PM has a positive significant impact on JS. As a result, **H<sub>3</sub>** is accepted, as it can be seen in table 14.

Lastly, the last hypothesis claims that training and development of employees (T) has a positive impact on job satisfaction (JS) during the crisis of Covid-19. The results confirm this with a p-value of 0.000 and t-value of 3.248. Thus, T does have a positive effect on JS. As a result, H<sub>4</sub> is accepted, as it can be seen in table 14.

Table 14: Results of hypotheses testing

	Original Sample	Sample mean	Standard deviation	t-statistic	p-value	Decision
<b>H<sub>2</sub>: DT &gt;&gt;&gt; WFH</b>	0.594	0.598	0.047	<b>12.519</b>	<b>0.000</b>	<b>accepted</b>
<b>H<sub>1</sub>: WFH &gt;&gt;&gt; JS</b>	0.225	0.227	0.069	<b>3.248</b>	<b>0.001</b>	<b>accepted</b>
<b>H<sub>3</sub>: PM &gt;&gt;&gt; JS</b>	0.246	0.247	0.079	<b>3.130</b>	<b>0.002</b>	<b>accepted</b>
<b>H<sub>4</sub>: T &gt;&gt;&gt; JS</b>	0.346	0.350	0.076	<b>4.580</b>	<b>0.000</b>	<b>accepted</b>

Furthermore, for the mediation path, direct effect, indirect effect and total effect tests were done. From these tests, we can analyse the role that the mediator variable of Working from Home (WFH) plays in the relationship between Digital Transformation (DT) and Job Satisfaction (JS). Table 14 displays the total effect results from which we can see that DT has a significant impact on JS (p-value = 0.002 and t-value = 3.069) and that DT also has a significant impact on WFH, ((p-value = 0.000 and t-value = 12.519) which implies that the impact of DT on JS is not entirely through WFH. This means that WFH is a partial mediator not a complete one.

Table 15: Total effects' results for the mediation relationship

	Original Sample	Sample mean	Standard deviation	t statistic	p-value
<b>DT &gt;&gt;&gt; WFH</b>	<b>0.594</b>	<b>0.598</b>	<b>0.047</b>	<b>12.519</b>	<b>0.000</b>
<b>DT &gt;&gt;&gt; JS</b>	<b>0.134</b>	<b>0.136</b>	<b>0.044</b>	<b>3.069</b>	<b>0.002</b>
WFH >>> JS	0.225	0.227	0.069	3.248	0.001
PM >>> JS	0.246	0.247	0.079	3.130	0.002
T >>> JS	0.346	0.350	0.076	4.580	0.000

### 3.5.4 Group testing:

After the main analysis of our data that was done above, additional tests were done using a few of our group descriptive variables such as gender, age, education, status and company size so that we could see if these different groups had any significant impacts on our structural items (WFH, DT, PM, T and JS). This analysis was done on SPSS using independent t-tests for the gender groups and the marital status groups since they each have two categories only (female VS male and single VS married); while ANOVA testing was used for the other groups that had multiple categories such as age (4 categories), education (6 categories) and size of the company (5 categories). ANOVA refers to the statistical Analysis of Variance between different independent groups.

A t-test analysis was done on SPSS. To do this, SPSS first does Levene's test in order to accurately interpret and read the t-test results. If Levene's test determines that the difference

of the variances is insignificant, which means it is equal to or above 0.05, then it's the first row of the t-test results that is interpreted (EVA: EVA). Whereas, if it's found to be significant, then the below row is interpreted for the t-test results (EVNA: EVNA) (KENT university library, 2021). You can see these in detail in Appendices 3 and 4, for gender and marital status respectively.

For gender, the t-test results revealed that two items have a significant difference between the variables of the group: T1 (sig = 0.009) and JS4 (sig = 0.025). This means that no significant difference was shown in the remaining 18 items of our structural constructs when it comes to gender. So, it would be fair to say that gender did not play an important role in the answers of the participants. You can see the details of the complete results of this test in appendix 3.

For marital status, the t-test results revealed that eight items had a significant difference based on the different categories of marital status (single, married) and they are: WFH6 sig = 0.025; DT1 sig = 0.025; DT2 sig = 0.008; DT3 sig = 0.004; PM1 sig = 0.013; PM2 sig = 0.014; PM3 sig = 0.005; PM4 sig = 0.002; and T2 sig = 0.023. We notice that marital status categories did have an influence on the responses of PM (Performance Management) and DT (Digital Transformation) variables. You can see the details of these results in Appendix 4.

As for the ANOVA testing, it was done to age, education and size of company. For the age groups, 8 items were found to have significant differences including 3 out of the 4 items of the Job Satisfaction construct (JS1 sig = 0.002; JS4 sig = 0.027 and JS6 sig = 0.041) and all 4 of the Performance Management items (PM1 sig = 0.013; PM2 sig = 0.003; PM3 sig = 0.000 and PM4 sig = 0.001), in addition to DT2 with sig = 0.026. This suggests that age has in fact an impact on the responses for the JS and management questions with the highest significant differences belonging to these items "PM3: Managers went 'above and beyond' their job requirements regardless of their location during the Covid-19 pandemic" and "PM4:

Supervisors/Managers have communicated adequately to the employees about the pandemic”.

You can see the details of the full results in Appendix 5.

Using the ANOVA analysis again, we can see that for Education (which had 6 groups: high school, associate degree, bachelor’s degree, master’s degree, professional degree, doctorate), only 4 items had a significant difference between the different education categories and these items are DT1 = 0.048; PM1 = 0.040; PM3 = 0.041; and JS1 = 0.012. For example, the level of education had a significant impact on the responses to this question “JS1: At this very moment, I am enthusiastic about my work”. You can find the details of this analysis in Appendix 6. In order to know between which pair of categories of education is this significant difference, a multiple comparison using POST HOC tests and Tukey HSD on SPSS was done. It determined the categories of “associate degree”, and “ bachelor’s degree” for DT1 with a significance level of 0.021; and categories “bachelor’s degree” and “master’s degree” for PM1 with a significance level of 0.030. You can see the results of this multiple comparison in Appendix 7.

The next group whose variance differences were examined using ANOVA was the size of the companies. 5 items were found to have a significant difference between the variable’s categories, and they are: DT4 sig = 0.001; PM1 sig = 0.019; PM2 sig = 0.009; PM3 sig = 0.003; PM4 sig = 0.007. As one could have expected, the main differences were for Performance Management which is a variable that tests the management of a company of its employees, so the statistical results show that, in fact, the size does impact the management practices of a company. You can find the full and detailed results of this test in Appendix 7.

#### **4. Conclusions and discussions:**

This study was done in order to achieve two objectives. First, to identify the main crisis management practices that were used by managements in Morocco in order to respond to the

on-going crisis of Covid-19, which was accomplished through a literature review that summarized previous literature surrounding crisis management as well as Covid-19 management. Secondly, the research aimed to examine the impact or relationships between the determined practices in objective 1 and the dependent variable: Job Satisfaction. The study was planned and executed with the specificities of Covid-19, which means that job satisfaction here refers to JS during the Coronavirus pandemic, not in general. Same applies to the dependent variables (Working from home, Performance management, digital transformation and training).

Job Satisfaction is a widely studied field considering its relevance when it comes to employee performance and thus, business continuity. Being a broad latent variable that can both be a dependent and independent variable depending on the context and situation, it was important to study it in the specific context of the health crisis of Covid-19. Knowing that there is very little research done in the field of human resources within the Moroccan Academic field, let alone the crisis management section, it was very important to conduct this study within a Moroccan setting and have it specifically catered to Moroccan organizations and employees.

Following standard models previously used in studies that had similar theoretical frameworks and approaches, a survey was curated in both English and French, respecting reliability and validity checks as well as applying the back-translation method to ensure the accuracy of the French version. This survey was designed to collect data directly from Moroccan employees and use their experiences working during the pandemic in order to study the relationships between our variables.

Our 4 hypotheses that were introduced and explained in this dissertation were analyzed on the latest version of the software SmartPLS3.3.5 using partial least squares modeling (PLS). The analysis concluded that Digital Transformation does have a partial impact on Job Satisfaction through the mediator variable of Working from Home, while Performance Management and Training have direct significant positive impact on Job Satisfaction, these

results were also found in previous literature such as the works of Irawanto and his collaborators in 2021 that confirmed the strong relationship between WFH and JS in their published research. Moreover, researcher Ullah and his collaborators confirmed in 2020 the relationship between T and JS. In addition to that, Van Hoek and his collaborators confirmed the relationship between PM and JS in their published paper in 2020 as well. The strongest relationship among these was that of DT on WFH and T on JS, both with a significance level of 0.000 each.

## **5. Policy Implications:**

Unfortunately, the crisis of the Coronavirus is still as relevant as ever, especially with the emergence of its latest variant: Omicron, as of December of 2021. With this new variant and the uprising in cases, many countries are going back to closing borders, increasing work from home shifts and continuing the digital alternative of work. As a result, this study can be used by Moroccan managers and managerial teams to further improve their Covid-19 management plans and customize them to fit the average Moroccan profile that was a part of our study, and thus, ensure their job satisfaction, which then can positively influence job performance and their business continuity.

In addition to that, aside from using our findings to design or modify their Covid-19 management plans within a Moroccan context, these findings can be used to design new precautionary plans for potential future health crises, as well as predict the post-crisis plans for Covid-19.

## **6. Limitations and Future work:**

### **6.1 Limitations:**

There are a few limitations that can be mentioned when it comes to this study. First, the sample size could be bigger in order to provide a more accurate representation of the average Moroccan profile working during Covid-19. In addition to that, in order to keep the study simple

and straight-forward, the study used small or reduced scales for the variables instead of the more in-depth alternatives. Moreover, it was very difficult to design the survey since although Job Satisfaction is a majorly studied topic, the crisis of Covid-19 is still new, at least in the academic world. Thus, it was challenging to find ready questions for our constructs within the context we wanted and as a result, new modifications were entered. In addition to that, it was impossible to find the French alternative of the survey in past studies since, as mentioned before, this is a new topic. Furthermore, this study considered only 4 independent variables as factors having impact on Job Satisfaction, whereas the conceptual framework can be extended to include other popular practices such as mental health management, communication, commitment, succession planning, etc. Lastly, a more sector-focused study could have provided more insightful answers, by knowing exactly the percentages of each sector that participated in the study, another group test could've been done to determine to which sector the best responding profiles belong. This could have easily been achieved by including a sector question in the survey.

## **6.2 Future research recommendations:**

As highlighted in the limitations section, a good recommendation for future research around this topic would be to use a bigger sample, and not limit it only to one country. Also, use a more complex conceptual framework that considers more crisis management practices in order to identify the most significant on job satisfaction and not just the 4 we used. Finally, look more into the group testing part in order to provide more details about the perceptions of which profiles fit best with each practice recommended and which sectors they belong to, thus allowing managers to know exactly which profiles would respond best to which solution in order to achieve higher job satisfaction. Furthermore, since this study took into consideration Moroccan employees only, it would be interesting to conduct a similar study that is based in Turkey and then compare the results of both. This would be done with the purpose of examining

the impacts of the different cultural and business atmospheres between both countries during Covid-19 on the crisis management factors recommended in our model.

## 7. References:

- Adhanom, T. (2020). The Media Briefing on COVID 19. World Health Organization. Retrieved March 17, 2021 from: <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- Agarwal, P. (2021). Shattered but smiling: Human resource management and the wellbeing of hotel employees during COVID-19. *International Journal of Hospitality Management*, 93, 102765.
- Al-Hawary, S. I. S., Al-Qudah, K. A., Abutayeh, P. M. A., Abutayeh, S. M. A., & Al-Zyadat, D. Y. (2013). The impact of internal marketing on employee's job satisfaction of commercial banks in Jordan. *Interdisciplinary Journal of Contemporary Research in Business*, 4(9), 811-826
- Ali, M. S., Naoreen, B., Iqbal, A., & Jalal, H. (2021). Online Teaching, Psychological State, and Job Satisfaction: Teachers' Perspective during COVID-19 Pandemic. *Ilkogretim Online*, 20(2).
- Almarzooqi, B., & Alaamer, F. A. (2020). Worker Perceptions on Working from Home during COVID-19 Pandemic Empirical Evidence from Bahrain. Available at SSRN 3643890.
- Almohtaseb, A., Almahameed, M., Sharari, F., & Dabbouri, E. (2021). The effect of transformation leadership on government employee job satisfaction during Covid-19. *Management Science Letters*, 11(4), 1231-1244.
- Athamneh, S. (2018). HR Planning for Crisis Management, Human Resource Planning for the 21st Century, Josiane Fahed-Sreih, IntechOpen, DOI: 10.5772/intechopen.75233. Available from: <https://www.intechopen.com/books/human-resource-planning-for-the-21st-century/hr-planning-for-crisis-management>
- Baker, E., Avery, G. C., & Crawford, J. D. (2007). Satisfaction and perceived productivity when professionals work from home. *Research & Practice in Human Resource Management*.
- Baruch, Y. (2000) Teleworking benefits and pitfalls as perceived by professionals and managers, *New Technology, Work and Employment*, 15,34-49.
- Bellmann, L., & Hübler, O. (2020). Working from home, job satisfaction and work–life balance–robust or heterogeneous links?. *International Journal of Manpower*.
- Benitez, J., Henseler, J., Castillo, A., & Schuberth, F. (2020). How to Perform and Report and Impactful Analysis Using Partial Least Squares: Guidelines for Confirmatory and Explanatory IS Research. *Information & Management*, 1-16.
- Benjamin, D.J., Berger, J., Johannesson, M., Nosek, B., Wagenmakers, E., Berk, R., et al., Redefine statistical significance, *Nat. Hum. Behav.*, 2018, no. 2, pp. 6–10.
- Brayfield, A. H., & Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35(5), 307–311.

- Bregenzer, A., & Jimenez, P. (2021). Risk Factors and Leadership in a Digitalized Working World and Their Effects on Employees' Stress and Resources: Web-Based Questionnaire Study. *Journal of medical Internet research*, 23(3), e24906.
- Boulton, C. (2020). What is digital transformation? A necessary disruption. *CIO*. Retrieved from <https://www.cio.com/article/3211428/what-is-digital-transformation-a-necessary-disruption.html>
- Cascio, W.F. (2000). Managing a virtual workplace. *Academy of Management Executive*, 14(3), 81–90
- Castellacci, F., & Viñas-Bardolet, C. (2017). Internet use and job satisfaction. *Center for Technology, Innovation and Culture, University of Oslo*, 1-37.
- Castellacci, F., & Viñas-Bardolet, C. (2019). Internet use and job satisfaction. *Computers in Human Behavior*, 90, 141-152.
- Cambridge University Press. (2021). Cambridge Business English Dictionary. Retrieved December 20, 2021, from <https://dictionary.cambridge.org/dictionary/english/transformational-leadership>
- Chanana, N. (2020). Employee engagement practices during COVID-19 lockdown. *Journal of Public Affairs*, e2508.
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological bulletin*, 52(4), 281.
- Currivan, D. B. (1999). The causal order of job satisfaction and organizational commitment in models of employee turnover. *Human resource management review*, 9(4), 495-524.
- Danilova, K. B., Iden, J., Knudsen, D. R., Costabile, C., Johannessen, T. V., Johanson, B. D., & Ulfsten, A. (2020). VIRTUAL WORK DURING COVID-19 LOCKDOWN—LESSONS LEARNED. In *Norsk konferanse for organisasjoners bruk at IT* (Vol. 28, No. 1).
- Davenport, T.H., & Pearlson, K. (1998). Two cheers for the virtual office. *Sloan Management Review*, 39(4), 51–65.
- Davenport, H., Redman T. C., (2020). Harvard Business: Digital Transformation comes down to talent in 4 key areas. Retrieved from <https://hbr.org/2020/05/digital-transformation-comes-down-to-talent-in-4-key-areas>
- Datta, P., & Nwankpa, J. K. (2021). Digital transformation and the COVID-19 crisis continuity planning. *Journal of Information Technology Teaching Cases*. <https://doi.org/10.1177/2043886921994821>
- Eckhardt, A., Endter, F., Giordano, A., & Somers, P. (2019). Three stages to a virtual workforce. *MIS Quarterly Executive*, 18(1), 5.
- Elsafy, A., & Ragheb, M. (2020). The Role of Human Resource Management Towards Employees' Retention during Covid-19 Pandemic in Medical Supplies Sector – Egypt. *Business and Management Studies*. 6(2): 50.

- European Union, European Commission. (2021), Institutions and bodies profile. Retrieved from [https://european-union.europa.eu/institutions-law-budget/institutions-and-bodies/institutions-and-bodies-profiles/european-commission\\_en](https://european-union.europa.eu/institutions-law-budget/institutions-and-bodies/institutions-and-bodies-profiles/european-commission_en)
- Feng, Z., & Savani, K. (2020). Covid-19 created a gender gap in perceived work productivity and job satisfaction: implications for dual-career parents working from home. *Gender in Management: An International Journal*.
- Fisher, R. (1955). Statistical methods and scientific induction. *Journal of the Royal Statistical Society: Series B (Methodological)*, 17(1), 69-78.
- Fitzpatrick, M, Gill, I, Libarikian, A, et al. (2020) The digital-led recovery from COVID-19: Five questions for CEOs. McKinsey Digital. Available at: <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-digital-led-recovery-from-covid-19-five-questions-for-ceos> (accessed 25 October 2020).
- Ganguly, A. K., & Chattopadhyay, S. (2020). The Employees Perception on Technology Adoption in Banks: An Empirical study on Two Major Private Banks. *American Journal of Business and Management Research*, 1(3), 1-12
- Gasser, U., Ienca, M., Scheibner, J., Sleight, J., & Vayena, E. (2020). Digital tools against COVID-19: taxonomy, ethical challenges, and navigation aid. *The Lancet Digital Health*.
- Gigauri, I. (2020). Implications of COVID-19 for Human Resource Management. *International Journal of Economics and Management studies*. 7(11).
- Gigauri, I. (2020). Organizational Support to HRM in Times of the COVID-19 Pandemic Crisis. *European Journal of Marketing and Economics*. 3(3):36-48.
- Gopinath, R., & Litt, D. (2020). Impact of self-actualization on organizational commitment, job involvement and job satisfaction among academic leaders using structural equation modeling. *Palarch's Journal of Archaeology of Egypt/Egyptology*, 17(6), 13999-14011.
- Hair JF, Sarstedt M, Hopkins L, Kuppelwieser VG. 2014. Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review* 26: 106– 121. DOI:10.1108/EBR-10-2013-0128
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling. *Thousand Oaks: Sage*.
- Hafermalz, E. (2021). Out of the Panopticon and into Exile: Visibility and control in distributed new culture organizations. *Organization Studies*, 42(5), 697-717.
- Hamouche S. (2020). COVID-19 and employees' mental health: stressors, moderators and agenda for organizational actions. *Emerald Open Research*, 2, 15. <https://doi.org/10.35241/emeraldopenres.13550.1>
- Harding, D., Kadiyono, A. L., Hafiar, H., Mamun, T. N., Wibowo, H., Nugraha, Y., & Siswadi, A. G. P. (2020). Readiness of Technology Adaptation towards Digital-Based Entrepreneurship. *International Journal of Entrepreneurship*, 24(1).

- Hartman, R.I., Stoner, C.R. & Arora, R. (1991) An investigation of selected variables affecting telecommuting productivity and satisfaction, *Journal of Business and Psychology*, 6(2), 207-225.
- Hawash, B., Abuzawayda, Y. I., Mokhtar, U. A., Yusef, Z. M., & Mukred, M. (2020). Digital Transformation In The Oil And Gas Sector During Covid-19 Pandemic. *International Journal of Management (IJM)*, 11(12), 725-735.
- Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence-based nursing*, 18(3), 66-67.
- Herzberg, F. I. (1966). Work and the Nature of Man.
- Henseler J.C., Ringle C.M., Sinkovics R.R. 2009. The use of partial least squares path modeling in international marketing. *Advances in International Marketing* 20: 277–319.
- Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135.
- Hoppock, R. (1937). Job satisfaction of psychologists. *Journal of Applied Psychology*, 21(3), 300.
- Hsu, S. H. & Wang, Y. C. (2008). The development and empirical validation of the Employee Satisfaction Index model. *Total Quality Management & Business Excellence*. 19(4).
- Huq, S. (2021). How COVID-19 Has Changed the Policies, Practices, and Behaviors of the Workplace.
- Irawanto, D. W., Novianti, K. R., & Roz, K. (2021). Work from home: Measuring satisfaction between work–life balance and work stress during the COVID-19 pandemic in Indonesia. *Economies*, 9(3), 96.
- Jakobsen, J. C., Gluud, C., Winkel, P., Lange, T., & Wetterslev, J. (2014). The thresholds for statistical and clinical significance—a five-step procedure for evaluation of intervention effects in randomised clinical trials. *BMC Medical Research Methodology*, 14(1), 1-12.
- Jamshidian, M. & Mata, M. (2007). Advances in analysis of mean and covariance structure when data are incomplete. In: *Handbook of latent variable and related models*. Elsevier, pp. 21–44
- Johar, R., Elizar, E., Annisa, D., & Mailizar, M. (2021). The challenges experienced by teachers in online workshop during the COVID-19 pandemic. In *Journal of Physics: Conference Series* (Vol. 1882, No. 1, p. 012047). IOP Publishing.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert Scale: Explored and Explained. *Current Journal of Applied Science and Technology*, 7(4), 396-403. <https://doi.org/10.9734/BJAST/2015/14975>
- Jostell, D., & Hemlin, S. (2018). After hours teleworking and boundary management: Effects on work-family conflict. *Work*, 60(3), 475-483.

- Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: the role of core evaluations. *Journal of applied psychology*, 83(1), 17.
- Kakkar, S., Dash, S., Vohra, N., & Saha, S. (2020). Engaging employees through effective performance management: an empirical examination. *Benchmarking: An International Journal*.
- Kanapathipillai, K., & Azam, S. F. (2020). The impact of employee training programs on job performance and job satisfaction in the telecommunication companies in Malaysia. *European Journal of Human Resource Management Studies*, 4(3).
- Kasdorf, R. L., & Kayaalp, A. (2021). Employee career development and turnover: a moderated mediation model. *International Journal of Organizational Analysis*.
- Kent State University Library. (2021). SPSS TUTORIALS: INDEPENDENT SAMPLES T TEST. Retrieved December 20, 2021, from <https://libguides.library.kent.edu/spss/independentttest>
- Kline, R. B. (2011). Principles and practice of structural equation modeling (3. Baskı). New York, NY: Guilford
- Kniffin, K. M., Narayanan, J., Anseel, F., Antonakis, J., Ashford, S. P., Bakker, A. B., Bamberger, P., Bapuji, H., Bhave, D. P., Choi, V. K., Creary, S. J., Demerouti, E., Flynn, F. J., Gelfand, M. J., Greer, L. L., Johns, G., Kesebir, S., Klein, P. G., Lee, S. Y., . . . Vugt, M. v. (2021). COVID-19 and the workplace: Implications, issues, and insights for future research and action. *American Psychologist*, 76(1), 63–77. <https://doi.org/10.1037/amp0000716>
- Krabbe, F. M. P., (2017). The Measurement of Health and Health Status, retrieved from <https://www.sciencedirect.com/topics/psychology/convergent-validity>
- Lambert, E. G., Hogan, N. L., & Barton, S. M. (2001). The impact of job satisfaction on turnover intent: a test of a structural measurement model using a national sample of workers. *The Social Science Journal*, 38(2), 233-250.
- Kéry, M., & Royle, J. A. (2016). Applied hierarchical modeling in ecology: Analysis of distribution, abundance and species richness in R and BUGS: Volume 1: Prelude and static models. Academic Press.
- Kuklina, E., & Semkova, D. (2020). Digital Technologies as a Key Tool to Increase the Efficiency of the Russian Oil and Gas Industry in Modern Conditions of Functioning. Administrative Consulting.
- LAWLER III, E. E., & Porter, L. W. (1967). The effect of performance on job satisfaction. *Industrial relations: A journal of Economy and Society*, 7(1), 20-28.
- Locke, E. A. (1976). The nature and causes of job satisfaction. Handbook of industrial and organizational psychology. Lohmöller J-B (1989) Latent variable path modeling with partial least squares. Springer, Berlin
- MacCallum, R. C. (1990). The need for alternative measures of fit in covariance structure modeling. *Multivariate Behavioral Research*, 25(2), 157-162.

- Mahmud, S., Talukder, M. U., & Rahman, M. (2021). Does 'Fear of Covid-19' trigger future career anxiety? An empirical investigation considering depression from Covid-19 as a mediator. *International Journal of Social Psychiatry*, 67(1): 35-45
- Malhotra, N., & Mukherjee, A. (2004). The relative influence of organisational commitment and job satisfaction on service quality of customers-contact employees in banking call centres. *Journal of services Marketing*.
- Markovits, Y., Boer, D., & van Dick, R. (2014). Economic crisis and the employee: The effects of the economic crisis on employee job satisfaction, commitment, and self-regulation. *European Management Journal*, 32(3), 413-422.
- Manuti, A., Giancaspro, M. L., Molino, M., Ingusci, E., Russo, V., Signore, F., ... & Cortese, C. G. (2020). "Everything Will Be Fine": A Study on the Relationship between Employees' Perception of Sustainable HRM Practices and Positive Organizational Behavior during COVID19. *Sustainability*, 12(23), 10216.
- Maydeu-Olivares, A. (2017). Assessing the size of model misfit in structural equation models. *Psychometrika*, 82(3), 533-558.
- McInerney, C.R. (1999). Working in the virtual office: Providing information and knowledge to remote workers. *Library & Information Science Research*, 21(1), 69–89.
- Meyer, J. P., Stanley, D. J., Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of vocational behavior*, 61(1), 20-52.
- Morawska L., & Cao J. (2020). Airborne transmission of SARS-CoV-2: The world should face reality. *Environ Int*. 2020;139:105730.
- Mustafa, S. Z., Kar, A. K., & Janssen, M. (2020). Understanding the impact of digital service failure on users: Integrating Tan's failure and DeLone and McLean's success model. *International Journal of Information Management*, 53, 102119.
- Mwita, K. M. (2020). Effects of corona virus pandemic (covid-19) on selected human resource management practices in tanzania. *East African Journal of Social and Applied Sciences (EAJ-SAS)*, 2(2).
- Narayanamurthy, G., & Tortorella, G. (2021). Impact of COVID-19 outbreak on employee performance—moderating role of industry 4.0 base technologies. *International Journal of Production Economics*, 234, 108075.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- O'Driscoll, M. P., & Randall, D. M. (1999). Perceived organisational support, satisfaction with rewards, and employee job involvement and organisational commitment. *Applied Psychology*, 48(2), 197-209.
- OECD (2021), Enterprises by business size (indicator). doi: 10.1787/31d5eeaf-en (Accessed on 20 December 2021)

- Pearson, C., & Mitroff, I. (1993). From Crisis Prone to Crisis Prepared: A Framework for Crisis Management. *The Executive*, 7(1), 48-59. Retrieved March 17, 2021, from <http://www.jstor.org/stable/4165107>
- Pilipiec, P., Groot, W., & Pavlova, M. (2020). A longitudinal analysis of job satisfaction during a recession in The Netherlands. *Social Indicators Research*, 149(1), 239-269.
- Pushpakumari, M. D. (2008, January). The impact of job satisfaction on job performance: An empirical analysis. *In City Forum* (Vol. 9, No. 1, pp. 89-105).
- Przytuła, S., Strzelec, G., & Krysińska-Kościańska, K. (2020). Re-vision of Future Trends in Human Resource Management (HRM) after COVID-19. *Journal of Intercultural Management*, 12(4), 70-90.
- Rahman, M. M., Ali, G. G., Li, X. J., Paul, K. C., & Chong, P. H. (2020). Twitter and census data analytics to explore socioeconomic factors for post-covid-19 reopening sentiment. Nawaz and Li, Xue Jun and Paul, Kamal Chandra and Chong, Peter HJ, Twitter and Census Data Analytics to Explore Socioeconomic Factors for Post-COVID-19 Reopening Sentiment (June 30, 2020).
- Rahman, W., & Nas, Z. (2013). Employee development and turnover intention: theory validation. *European journal of training and development*.
- Raišienė, A. G., Rapuano, V., Varkulevičiūtė, K., & Stachová, K. (2020). Working from Home—Who is Happy? A Survey of Lithuania's employees during the COVID-19 quarantine period. *Sustainability*, 12(13), 5332.
- Rana, H., & Lal, M. (2014). E-learning: Issues and challenges. *International Journal of Computer Applications*, 97(5).
- Rangarajan, R., Saranya, S. (2020). Work-From-Home – A Paradigm Cultural Shift! Available at [https://www.researchgate.net/publication/344189737\\_Work-From-Home - A Paradigm Cultural Shift An Empirical Study with reference to IT Employees Survey was done prior to COVID 19 Scenario](https://www.researchgate.net/publication/344189737_Work-From-Home_-_A_Paradigm_Cultural_Shift_An_Empirical_Study_with_reference_to_IT_Employees_Survey_was_done_prior_to_COVID_19_Scenario)
- Rehman, K., Rehman, Z., Saif, N., Khan, A. S., Nawaz, A., & Rehman, S. (2013). Impacts of job satisfaction on organizational commitment: a theoretical model for academicians in HEI of developing countries like Pakistan. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 3(1), 80-89.
- Richter, A. (2020). Locked-down digital work. *International Journal of Information Management*, 55, 102157.
- Rodriguez, J., & Walters, K. (2017). The importance of training and development in employee performance and evaluation. *World Wide Journal of Multidisciplinary Research and Development*, 3(10), 206-212.
- Ronez M. (2014). Crisis management in the workplace and the role of the HR team, on Author's professional website. Available at: <http://riskmanagementdemystified.com/2014/08/25/hr-a-key-role-to-play-in-crisis-management-organisational-sustainability-preparedness/> (accessed 27 November 2016)

- Royal Air Maroc. (2021). *Cancellation of flights to and from Morocco* Retrieved December 19, 2021, from <https://www.royalairmaroc.com/cm-en/information/delays-and-disruptions>
- Saari, L. M., & Judge, T. A. (2004). Employee attitudes and job satisfaction. *Human Resource Management: Published in Cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management*, 43(4), 395-407.
- Said, R. M., & El-Shafei, D. A. (2021). Occupational stress, job satisfaction, and intent to leave: nurses working on front lines during COVID-19 pandemic in Zagazig City, Egypt. *Environmental Science and Pollution Research*, 28(7), 8791-8801.
- Shadur, M. A., Kienzle, R., & Rodwell, J. J. (1999). The relationship between organizational climate and employee perceptions of involvement: The importance of support. *Group & Organization Management*, 24(4), 479-503.
- Siegal & Lance. (1987). *Personnel and organisational psychology* ; Homewood ; IL : Richard D.Irwin,Inc.
- Sinha, D. & Gupta, N. Need satisfaction and absenteeism. *Indian Journal of Industrial Relations*, 1974, 10(1), 3-14
- Smeets, K., & Zeisberger, S. (2020). How FinTech can help Latin America to deal with economic challenges and the Covid-19 crisis. Available at SSRN 3673240.
- Stalder, P. (2020). *Les compétences de carrière: validation de la version française du Career Competencies Questionnaire et exploration de ses liens avec des facteurs professionnels (Doctoral dissertation, Université de Lausanne, Faculté des sciences sociales et politiques)*.
- Staples, D.D., Hulland, JS. & Higgins, CA. (1999) A self-efficacy theory explanation for the management of remote workers in virtual organizations, *Organization Science*, 10(6), 758-776
- Sulaiman, M. A. B. A., Ahmed, M. N., & Shabbir, M. S. (2020). COVID-19 Challenges and Human Resource Management in Organized Retail Operations/Desafios del Covid-19 y la administracion de recursos humanos en operaciones minoristas organizadas. *Utopia y Praxis Latinoamericana*, 25(SI 12), 81-93.
- Tabachnick, B.G., & Fidell, L.S. (2012). *Using Multivariate Statistics Using Multivariate Statistics* (6 ed). Pearson.
- Thompson, B. (2004). *Exploratory and Confirmatory Factor Analysis: Understanding concepts and applications*. Washington, DC, 10694-000
- Ullah, A., Ishaque, A., Din, M. U., & Safdar, N. (2020). The Relationship between Employees Training and Job Satisfaction with Moderating Role of Organizational Culture. A Case of Banking Sector of KP, Pakistan. *Journal of Accounting and Finance in Emerging Economies*, 6(3), 857-871.
- Uniting Aviation. (2021). Retrieved March 17, 2021 from <https://www.icao.int/Newsroom/Pages/2020-passenger-totals-drop-60-percent-as-COVID19-assault-on-international-mobility-continues.aspx>

- Vallerand RJ. (1989). Vers une méthodologie de validation trans-culturelle de questionnaires psychologiques: Implications pour la recherche en langue française. *Canadian Psychology*, 30(4): 662-80.
- Van Hoek, L., Paul-Dachapalli, L. A., Schultz, C. M., Maleka, M. J., & Ragadu, S. C. (2020). Performance management, vigour, and training and development as predictors of job satisfaction in low-income workers. *SA Journal of Human Resource Management*, 18(1), 1-10.
- Vuong, B., Tung, D., Tushar, H., Quan, T., & Giao, H. (2021). Determinates of factors influencing job satisfaction and organizational loyalty. *Management Science Letters*, 11(1), 203-212.
- Wang, W., Wang, Y., Zhang, Y., & Ma, J. (2020). Spillover of workplace IT satisfaction onto job satisfaction: The roles of job fit and professional fit. *International Journal of Information Management*, 50, 341–352. <https://doi.org/10.1016/j.ijinfomgt.2019.08.011>
- Wexley, K. N., & Yukl, G. A. (1984). *Organizational behavior and personal psychology*. Homewood, IL: Richard D. Irwin. Inc., 1977.
- Winarto, Y., & Chalidyanto, D. (2020). Perceived supervisor support and employee job satisfaction in private hospitals. *Eurasian Journal of Biosciences*, 14(2), 2793-2797.
- Wu, C. H., Chen, I. S., & Chen, J. C. (2017). A STUDY INTO THE IMPACT OF EMPLOYEE WELLNESS AND JOB SATISFACTION ON JOB PERFORMANCE. *International Journal of Organizational Innovation*, 10(2).
- Zardasht, P., Omed, S., & Taha, S. (2020). Importance of HRM policies on employee job satisfaction. *Black Sea Journal of Management and Marketing*, 1(1), 49-57.

## 8. Appendices:

### 8.1 Appendix 1: English survey used:

Variable	Item	Question	Answer Options	Sources
Work from home	Q1: WFH1	The nature of my work allows working from home	Strongly Disagree Disagree Neutral Agree Strongly Agree	Al-Marzooqi and Al-Aamer (2020) Raman and Saranya (2020) Narayanamurthy & Tortorella (2021)
	Q2: WFH2	While working from home, I can understand my boss' expectations to meet in the schedule/task		
	Q3: WFH3	It is easy to coordinate with colleagues during work from home		
	Q4: WFH4	My work environment allows me to have a flexible routine (i.e., flexible hours/schedule)		
	Q5: WFH5	In general, I am satisfied with the experience of work-from-home		
Digital Transformation	Q6: DT1	My work environment presents the necessary infrastructure to support my activities	Strongly Disagree Disagree Neutral Agree Strongly Agree	Raman and Saranya (2020) Narayanamurthy & Tortorella (2021) Bregenzer & Jimenez (2021) Danilova et. Al (2020)
	Q7: DT2	Management provides the necessary technical facilities for me to work		
	Q8: DT3	I receive support in case of uncertainties in the technical operation of devices, software and digital tasks		
	Q9: DT4	The virtual work, with only digital contact between me and my colleagues, has		

		maintained my productivity		
Performance Management	Q10: PM1	Supervisors/Managers provide performance feedback to employees during the Covid-19 pandemic	Strongly Disagree Disagree Neutral Agree Strongly Agree	Huq (2021) Gigauri (2020)
	Q11: PM2	Supervisors/Managers accurately assess the performance of employees during the Covid-19 pandemic		
	Q12: PM3	Supervisors/Managers went 'above and beyond' their job requirements regardless of their location during the pandemic		
	Q13: PM4	Supervisors/Managers have communicated adequately to the employees during the pandemic		
Training	Q14: T1	Formal pieces of training during the pandemic	Less than 2 hours 2-4 hours 4-6 hours -More than 6 hours No training provided during the pandemic	Gigauri (2020) Rahman and Nas (2012)
	Q15: T2	Training and development during Covid-19	Strongly Disagree	

	Q16: T3	Organization's developmental efforts have improved my self-awareness, competencies, and skills	Neutral Agree Strongly Agree	
Job Satisfaction	Q17: JS1	At this very moment, I am enthusiastic about my work	Strongly Disagree	Brayfield & Rhode (1951)  Judge et al., (1998)  Al-Marzooqi and Al-Aamer (2020).
	Q18: JS2	Right now, I feel fairly satisfied with my present job	Disagree Neutral	
	Q19: JS3	At present, each minute at work seems like it will never end	Agree	
	Q20: JS4	At this moment, I am finding real enjoyment in my work	Strongly Agree	

## 8.2 Appendix 2: French survey used:

Variable	Item	Question	Answer Options	Sources
Travail à domicile	Q1: WFH1	La nature de mon travail me permet de travailler à domicile	Pas du tout d'accord Pas d'accord Ni d'accord, ni pas d'accord D'accord Tout à fait d'accord	The researcher herself; verified by the back-translation by the professional translator Mohamad Barakat
	Q2: WFH2	Lorsque je travaille à domicile, je peux comprendre les attentes de mon supérieur et respecter le programme de travail		
	Q3: WFH3	Il est facile de communiquer et collaborer avec mes collègues pendant le travail à domicile.		
	Q4: WFH4	Mon environnement de travail me permet d'être flexible (par exemple, d'avoir horaires flexibles)		
	Q5: WFH5	Globalement, je suis satisfait de l'expérience du travail à domicile		
Transformation digitale	Q6: DT1	Mon environnement de travail me donne accès aux infrastructures nécessaires à mes activités	Pas du tout d'accord Pas d'accord Ni d'accord, ni pas d'accord D'accord Tout à fait d'accord	The researcher herself; verified by the back-translation by the professional translator Mohamad Barakat
	Q7: DT2	La direction fournit les installations techniques nécessaires pour que je puisse travailler		
	Q8: DT3	J'ai reçu un accompagnement en cas d'incertitudes dans le		

		fonctionnement technique des appareils, logiciels, et autres		
	Q9: DT4	Le travail virtuel, avec seulement un contact numérique entre moi et mes collègues, m'a permis de maintenir le même niveau de productivité de ma journée de travail		
La gestion de la performance	Q10: PM1	Les superviseurs ont fourni des commentaires sur les performances aux employés pendant la pandémie du Covid-19	Pas du tout d'accord Pas d'accord	Researcher herself; verified by the back-translation to English by profession translator Mohamad Barakat
	Q11: PM2	Les superviseurs ont évalué avec précision les performances des employés pendant la pandémie du Covid-19	Ni d'accord, ni pas d'accord D'accord Tout à fait d'accord	
	Q12: PM3	Les superviseurs sont allés «au-delà » de leurs exigences professionnelles, quel que soit leur emplacement pendant la pandémie du Covid-19		
	Q13: PM4	Les superviseurs ont communiqué adéquatement avec les employés pendant la pandémie		

Formation et développement des ressources humaines	Q14: T1	Formations professionnelles pendant la pandémie	< 2 heures 2-4 heures 4-6 heures > 6 heures Aucune formation	the researcher herself; verified by the back-translation by the professional translator Mohamad Barakat
	Q15: T2	La direction m'a fourni les ressources adéquates nécessaires à mon développement	- Pas du tout d'accord - Pas d'accord - Ni d'accord, ni pas d'accord - D'accord - Tout à fait d'accord	
	Q16: T3	Les efforts de développement de l'organisation ont amélioré ma conscience de soi, mes compétences et mon employabilité		
Satisfaction au Travail	Q17: JS1	La plupart des jours, je me sens enthousiaste vis-à-vis de mon travail.	Pas du tout d'accord Pas d'accord	Judge et al., (1998)  last question: translation by the researcher herself; verified by the back-translation by the professional translator Mohamad Barakat
	Q18: JS2	Je me sens satisfait de mon emploi actuel.	Ni d'accord, ni pas d'accord	
	Q19: JS3	Je trouve un réel plaisir dans mon travail	D'accord Tout à fait d'accord	
	Q: JS4	Globalement, je suis satisfait des décisions prises par mon organisation pour lutter contre la propagation du Coronavirus		

### 8.3 Appendix 3: independent samples t-test for Gender:

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Diff	95% Confidence Interval of the Difference	
									Lower	Upper
WFH1	EVA	,000	,983	,385	185	,701	,078	,203	-,323	,479
	EVNA			,386	183,299	,700	,078	,203	-,322	,479
WFH2	EVA	1,451	,230	1,233	185	,219	,240	,194	-,144	,624
	EVNA			1,229	178,985	,221	,240	,195	-,145	,625
WFH3	EVA	,309	,579	,572	185	,568	,110	,192	-,269	,489
	EVNA			,573	183,283	,567	,110	,192	-,268	,488
WFH4	EVA	2,805	,096	-,464	185	,643	-,090	,193	-,471	,291
	EVNA			-,468	184,978	,640	-,090	,192	-,468	,288
WFH5	EVA	,194	,660	,229	185	,819	,044	,193	-,337	,425
	EVNA			,229	183,441	,819	,044	,193	-,336	,425
DT1	EVA	,072	,789	-1,479	185	,141	-,271	,184	-,634	,091
	EVNA			-1,473	179,031	,142	-,271	,184	-,635	,092
DT2	EVA	,842	,360	-1,450	185	,149	-,292	,201	-,688	,105
	EVNA			-1,453	183,585	,148	-,292	,201	-,688	,104
DT3	EVA	,176	,675	-1,026	185	,306	-,202	,197	-,590	,186
	EVNA			-1,027	183,221	,306	-,202	,197	-,590	,186
DT4	EVA	1,130	,289	-,086	185	,931	-,016	,190	-,391	,358
	EVNA			-,086	178,501	,932	-,016	,191	-,393	,360
PM1	EVA	,049	,825	,423	185	,673	,080	,188	-,292	,451
	EVNA			,423	182,118	,673	,080	,188	-,292	,451
PM2	EVA	1,505	,221	,264	185	,792	,049	,186	-,318	,417
	EVNA			,263	176,076	,793	,049	,187	-,321	,419
PM3	EVA	,008	,928	,649	185	,517	,115	,177	-,234	,464
	EVNA			,650	182,886	,517	,115	,177	-,234	,464
PM4	EVA	,002	,961	,825	185	,410	,146	,178	-,204	,497
	EVNA			,826	183,170	,410	,146	,177	-,203	,496
T1	EVA	,097	<b>,756</b>	-2,650	185	<b>,009</b>	-,525	,198	-,916	-,134
	EVNA			-2,639	178,627	,009	-,525	,199	-,918	-,132
T2	EVA	,004	,948	-1,098	185	,274	-,206	,187	-,576	,164
	EVNA			-1,100	183,634	,273	-,206	,187	-,575	,163
T3	EVA	,139	,710	-1,236	185	,218	-,216	,175	-,560	,129
	EVNA			-1,240	184,177	,217	-,216	,174	-,559	,128
JS1	EVA	,674	,413	,574	185	,567	,091	,158	-,222	,403
	EVNA			,572	179,544	,568	,091	,159	-,223	,405

JS2	EVA	5,373	,022	-,806	185	,421	-,126	,157	-,435	,183
	EVNA			-,813	184,710	,417	-,126	,155	-,432	,180
JS3	EVA	15,27 7	<b>,000</b>	-2,222	185	,027	-,340	,153	-,641	-,038
	EVNA			-2,263	178,510	<b>,025</b>	-,340	,150	-,636	-,043
JS4	EVA	,055	,816	-,303	185	,763	-,052	,171	-,389	,286
	EVNA			-,303	183,534	,762	-,052	,171	-,389	,285

#### 8.4 Appendix 4: Independent samples t-test for marital status:

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper	
WFH1	EVA	2,603	,108	1,348	185	,179	,275	,204	-,127	,677
	EVNA			1,361	177,839	,175	,275	,202	-,124	,673
WFH2	EVA	5,289	,023	1,907	185	,058	,371	,195	-,013	,756
	EVNA			1,935	180,358	,055	,371	,192	-,007	,750
WFH3	EVA	,102	,750	,482	185	,631	,093	,193	-,288	,475
	EVNA			,482	172,329	,631	,093	,193	-,289	,475
WFH4	EVA	1,354	,246	,922	185	,358	,179	,194	-,204	,562
	EVNA			,926	174,857	,356	,179	,193	-,203	,561
WFH5	EVA	14,789	<b>,000</b>	2,190	185	,030	,421	,192	,042	,800
	EVNA			2,267	184,987	<b>,025</b>	,421	,186	,055	,787
DT1	EVA	8,304	<b>,004</b>	2,213	185	,028	,406	,184	,044	,768
	EVNA			2,263	183,089	<b>,025</b>	,406	,179	,052	,760
DT2	EVA	16,985	<b>,000</b>	2,599	185	,010	,520	,200	,125	,915
	EVNA			2,684	184,862	<b>,008</b>	,520	,194	,138	,903
DT3	EVA	12,518	<b>,001</b>	2,851	185	,005	,555	,195	,171	,939
	EVNA			2,932	184,379	<b>,004</b>	,555	,189	,182	,928
DT4	EVA	2,484	,117	1,840	185	,067	,349	,190	-,025	,723
	EVNA			1,873	181,646	,063	,349	,186	-,019	,716
PM1	EVA	4,875	<b>,028</b>	2,476	185	,014	,462	,187	,094	,830
	EVNA			2,514	180,536	<b>,013</b>	,462	,184	,099	,825
PM2	EVA	6,287	<b>,013</b>	2,419	185	,017	,447	,185	,082	,811
	EVNA			2,473	183,024	<b>,014</b>	,447	,181	,090	,803
PM3	EVA	4,821	<b>,029</b>	2,788	185	,006	,487	,175	,143	,832
	EVNA			2,850	182,917	<b>,005</b>	,487	,171	,150	,825
PM4	EVA	8,302	<b>,004</b>	3,063	185	,003	,535	,175	,191	,880
	EVNA			3,126	182,419	<b>,002</b>	,535	,171	,197	,873
T1	EVA	2,910	,090	,846	185	,399	,172	,203	-,229	,572
	EVNA			,859	180,610	,391	,172	,200	-,223	,566
T2	EVA	1,224	<b>,270</b>	2,297	185	<b>,023</b>	,429	,187	,060	,798
	EVNA			2,315	177,088	,022	,429	,185	,063	,795
T3	EVA	2,857	,093	1,209	185	,228	,213	,176	-,134	,560
	EVNA			1,232	181,926	,219	,213	,173	-,128	,554
JS1	EVA	11,723	<b>,001</b>	1,271	185	,205	,202	,159	-,112	,516
	EVNA			1,315	184,973	,190	,202	,154	-,101	,505

JS2	EVA	18,125	,000	1,833	185	,068	,287	,157	-,022	,596
	EVNA			1,916	184,126	,057	,287	,150	-,009	,583
JS3	EVA	7,943	,005	1,321	185	,188	,205	,155	-,101	,511
	EVNA			1,365	184,909	,174	,205	,150	-,091	,502
JS4	EVA	15,224	,000	1,576	185	,117	,270	,171	-,068	,608
	EVNA			1,635	184,983	,104	,270	,165	-,056	,596

## 8.5 Appendix 5: ANOVA test for age:

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
WFH1	Between Groups	11,846	3	3,949	2,097	,102
	Within Groups	344,657	183	1,883		
	Total	356,503	186			
WFH2	Between Groups	8,977	3	2,992	1,713	,166
	Within Groups	319,739	183	1,747		
	Total	328,717	186			
WFH3	Between Groups	5,435	3	1,812	1,060	,367
	Within Groups	312,662	183	1,709		
	Total	318,096	186			
WFH4	Between Groups	,591	3	,197	,112	,953
	Within Groups	321,034	183	1,754		
	Total	321,626	186			
WFH5	Between Groups	3,034	3	1,011	,581	,629
	Within Groups	318,763	183	1,742		
	Total	321,797	186			
DT1	Between Groups	10,000	3	3,333	2,150	,096
	Within Groups	283,776	183	1,551		
	Total	293,775	186			
DT2	Between Groups	17,359	3	5,786	3,159	<b>,026</b>
	Within Groups	335,229	183	1,832		
	Total	352,588	186			
DT3	Between Groups	12,629	3	4,210	2,382	,071
	Within Groups	323,414	183	1,767		
	Total	336,043	186			
DT4	Between Groups	9,585	3	3,195	1,941	,124
	Within Groups	301,163	183	1,646		
	Total	310,749	186			
PM1	Between Groups	17,321	3	5,774	3,667	<b>,013</b>
	Within Groups	288,145	183	1,575		
	Total	305,465	186			
PM2	Between Groups	21,862	3	7,287	4,813	<b>,003</b>
	Within Groups	277,058	183	1,514		
	Total	298,920	186			
PM3	Between Groups	33,166	3	11,055	8,524	<b>,000</b>
	Within Groups	237,336	183	1,297		
	Total	270,503	186			
PM4	Between Groups	22,234	3	7,411	5,415	<b>,001</b>
	Within Groups	250,483	183	1,369		
	Total	272,717	186			
T1	Between Groups	2,407	3	,802	,421	,738
	Within Groups	349,133	183	1,908		

	Total	351,540	186			
T2	Between Groups	12,218	3	4,073	2,546	,057
	Within Groups	292,734	183	1,600		
	Total	304,952	186			
T3	Between Groups	6,551	3	2,184	1,546	,204
	Within Groups	258,518	183	1,413		
	Total	265,070	186			
JS1	Between Groups	16,512	3	5,504	5,030	<b>,002</b>
	Within Groups	200,237	183	1,094		
	Total	216,749	186			
JS2	Between Groups	5,118	3	1,706	1,507	,214
	Within Groups	207,160	183	1,132		
	Total	212,278	186			
JS3	Between Groups	10,053	3	3,351	3,118	<b>,027</b>
	Within Groups	196,663	183	1,075		
	Total	206,717	186			
JS4	Between Groups	11,095	3	3,698	2,805	<b>,041</b>
	Within Groups	241,311	183	1,319		
	Total	252,406	186			

## 8.6 Appendix 6: ANOVA test for education:

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
WFH1	Between Groups	20,889	5	4,178	2,253	,051
	Within Groups	335,614	181	1,854		
	Total	356,503	186			
WFH2	Between Groups	18,638	5	3,728	2,176	,059
	Within Groups	310,078	181	1,713		
	Total	328,717	186			
WFH3	Between Groups	4,552	5	,910	,526	,757
	Within Groups	313,545	181	1,732		
	Total	318,096	186			
WFH4	Between Groups	11,812	5	2,362	1,380	,234
	Within Groups	309,814	181	1,712		
	Total	321,626	186			
WFH5	Between Groups	12,348	5	2,470	1,444	,210
	Within Groups	309,449	181	1,710		
	Total	321,797	186			
DT1	Between Groups	17,446	5	3,489	2,285	<b>,048</b>
	Within Groups	276,330	181	1,527		
	Total	293,775	186			
DT2	Between Groups	16,577	5	3,315	1,786	,118
	Within Groups	336,011	181	1,856		
	Total	352,588	186			
DT3	Between Groups	16,314	5	3,263	1,847	,106
	Within Groups	319,729	181	1,766		
	Total	336,043	186			
DT4	Between Groups	9,405	5	1,881	1,130	,346
	Within Groups	301,344	181	1,665		
	Total	310,749	186			
PM1	Between Groups	18,897	5	3,779	2,387	<b>,040</b>
	Within Groups	286,568	181	1,583		
	Total	305,465	186			
PM2	Between Groups	14,525	5	2,905	1,849	,106
	Within Groups	284,395	181	1,571		
	Total	298,920	186			
PM3	Between Groups	16,624	5	3,325	2,370	<b>,041</b>
	Within Groups	253,878	181	1,403		
	Total	270,503	186			
PM4	Between Groups	13,204	5	2,641	1,842	,107
	Within Groups	259,512	181	1,434		
	Total	272,717	186			
T1	Between Groups	4,412	5	,882	,460	,806
	Within Groups	347,128	181	1,918		

	Total	351,540	186			
T2	Between Groups	4,561	5	,912	,550	,738
	Within Groups	300,391	181	1,660		
	Total	304,952	186			
T3	Between Groups	6,282	5	1,256	,879	,497
	Within Groups	258,788	181	1,430		
	Total	265,070	186			
JS1	Between Groups	16,707	5	3,341	3,023	<b>,012</b>
	Within Groups	200,042	181	1,105		
	Total	216,749	186			
JS2	Between Groups	7,370	5	1,474	1,302	,265
	Within Groups	204,908	181	1,132		
	Total	212,278	186			
JS3	Between Groups	8,021	5	1,604	1,461	,205
	Within Groups	198,696	181	1,098		
	Total	206,717	186			
JS4	Between Groups	6,242	5	1,248	,918	,471
	Within Groups	246,164	181	1,360		
	Total	252,406	186			

**8.7 Appendix 7: Multiple comparisons table for Education:**

Multiple Comparisons								
Tukey HSD								
Dependent Variable	(I) Edu	(J) Edu	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
DT1	Highschool	Associate	,509	,377	,756	-,58	1,59	
		Bachelor	-,383	,374	,909	-1,46	,69	
		Master	,224	,362	,989	-,82	1,27	
		Professional	-,033	,391	1,000	-1,16	1,09	
		Doctorate	,250	,479	,995	-1,13	1,63	
	Associate	Highschool	-,509	,377	,756	-1,59	,58	
		Bachelor	-,892*	,280	<b>,021</b>	-1,70	-,09	
		Master	-,284	,264	,889	-1,04	,48	
		Professional	-,542	,302	,471	-1,41	,33	
		Doctorate	-,259	,409	,988	-1,44	,92	
	Bachelor	Highschool	,383	,374	,909	-,69	1,46	
		Associate	,892*	,280	<b>,021</b>	,09	1,70	
		Master	,608	,260	,184	-,14	1,36	
		Professional	,350	,298	,849	-,51	1,21	
		Doctorate	,633	,407	,628	-,54	1,80	
	cat4	cat1	cat1	-,224	,362	,989	-1,27	,82
			cat2	,284	,264	,889	-,48	1,04
			cat3	-,608	,260	,184	-1,36	,14
		cat5	cat1	-,258	,283	,944	-1,07	,56
			cat2	,026	,396	1,000	-1,11	1,17
			cat3	-,258	,283	,944	-1,07	,56
		cat5	cat1	,033	,391	1,000	-1,09	1,16
			cat2	,542	,302	,471	-,33	1,41
			cat3	-,350	,298	,849	-1,21	,51
cat6		cat4	cat4	,258	,283	,944	-,56	1,07
			cat5	,283	,422	,985	-,93	1,50
			cat6	-,250	,479	,995	-1,63	1,13
	cat6	cat1	-,259	,409	,988	-,92	1,44	
		cat2	-,633	,407	,628	-1,80	,54	
		cat3	-,026	,396	1,000	-1,17	1,11	
PM1	cat1	cat2	,563	,384	,685	-,54	1,67	
		cat3	-,125	,381	,999	-1,22	,97	
		cat4	,685	,369	,432	-,38	1,75	
		cat5	,433	,398	,885	-,71	1,58	
		cat6	,550	,487	,869	-,85	1,95	
		cat2	-,563	,384	,685	-1,67	,54	
	cat2	cat3	-,688	,285	,157	-1,51	,13	
		cat4	,121	,269	,998	-,65	,89	

		cat5	-,130	,307	,998	-1,02	,76
		cat6	-,013	,417	1,000	-1,21	1,19
	cat3	cat1	,125	,381	,999	-,97	1,22
		cat2	,688	,285	,157	-,13	1,51
		cat4	,810*	,265	<b>,030</b>	,05	1,57
		cat5	,558	,304	,445	-,32	1,43
		cat6	,675	,414	,580	-,52	1,87
	cat4	cat1	-,685	,369	,432	-1,75	,38
		cat2	-,121	,269	,998	-,89	,65
		cat3	-,810*	,265	<b>,030</b>	-1,57	-,05
		cat5	-,251	,288	,953	-1,08	,58
		cat6	-,135	,403	,999	-1,30	1,03
	cat5	cat1	-,433	,398	,885	-1,58	,71
		cat2	,130	,307	,998	-,76	1,02
		cat3	-,558	,304	,445	-1,43	,32
		cat4	,251	,288	,953	-,58	1,08
		cat6	,117	,430	1,000	-1,12	1,35
	cat6	cat1	-,550	,487	,869	-1,95	,85
		cat2	,013	,417	1,000	-1,19	1,21
		cat3	-,675	,414	,580	-1,87	,52
		cat4	,135	,403	,999	-1,03	1,30
		cat5	-,117	,430	1,000	-1,35	1,12

### 8.8 Appendix 8: ANOVA test for the size of the company:

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
WFH1	Between Groups	8,184	4	2,046	1,069	,373
	Within Groups	348,319	182	1,914		
	Total	356,503	186			
WFH2	Between Groups	14,342	4	3,586	2,076	,086
	Within Groups	314,374	182	1,727		
	Total	328,717	186			
WFH3	Between Groups	7,603	4	1,901	1,114	,351
	Within Groups	310,493	182	1,706		
	Total	318,096	186			
WFH4	Between Groups	6,731	4	1,683	,973	,424
	Within Groups	314,895	182	1,730		
	Total	321,626	186			
WFH5	Between Groups	9,206	4	2,301	1,340	,257
	Within Groups	312,591	182	1,718		
	Total	321,797	186			
DT1	Between Groups	7,341	4	1,835	1,166	,327
	Within Groups	286,434	182	1,574		
	Total	293,775	186			
DT2	Between Groups	13,873	4	3,468	1,864	,119
	Within Groups	338,715	182	1,861		
	Total	352,588	186			
DT3	Between Groups	9,323	4	2,331	1,298	,272
	Within Groups	326,720	182	1,795		
	Total	336,043	186			
DT4	Between Groups	28,718	4	7,179	4,633	<b>,001</b>
	Within Groups	282,031	182	1,550		
	Total	310,749	186			
PM1	Between Groups	19,013	4	4,753	3,020	<b>,019</b>
	Within Groups	286,452	182	1,574		
	Total	305,465	186			
PM2	Between Groups	21,275	4	5,319	3,486	<b>,009</b>
	Within Groups	277,645	182	1,526		
	Total	298,920	186			
PM3	Between Groups	23,170	4	5,793	4,262	<b>,003</b>
	Within Groups	247,332	182	1,359		
	Total	270,503	186			
PM4	Between Groups	20,357	4	5,089	3,670	<b>,007</b>
	Within Groups	252,360	182	1,387		
	Total	272,717	186			
T1	Between Groups	1,136	4	,284	,148	,964
	Within Groups	350,404	182	1,925		

	Total	351,540	186			
T2	Between Groups	13,352	4	3,338	2,083	,085
	Within Groups	291,599	182	1,602		
	Total	304,952	186			
T3	Between Groups	2,605	4	,651	,452	,771
	Within Groups	262,464	182	1,442		
	Total	265,070	186			
JS1	Between Groups	5,028	4	1,257	1,081	,368
	Within Groups	211,721	182	1,163		
	Total	216,749	186			
JS2	Between Groups	5,241	4	1,310	1,152	,334
	Within Groups	207,038	182	1,138		
	Total	212,278	186			
JS3	Between Groups	4,593	4	1,148	1,034	,391
	Within Groups	202,124	182	1,111		
	Total	206,717	186			
JS4	Between Groups	12,000	4	3,000	2,271	,063
	Within Groups	240,406	182	1,321		
	Total	252,406	186			

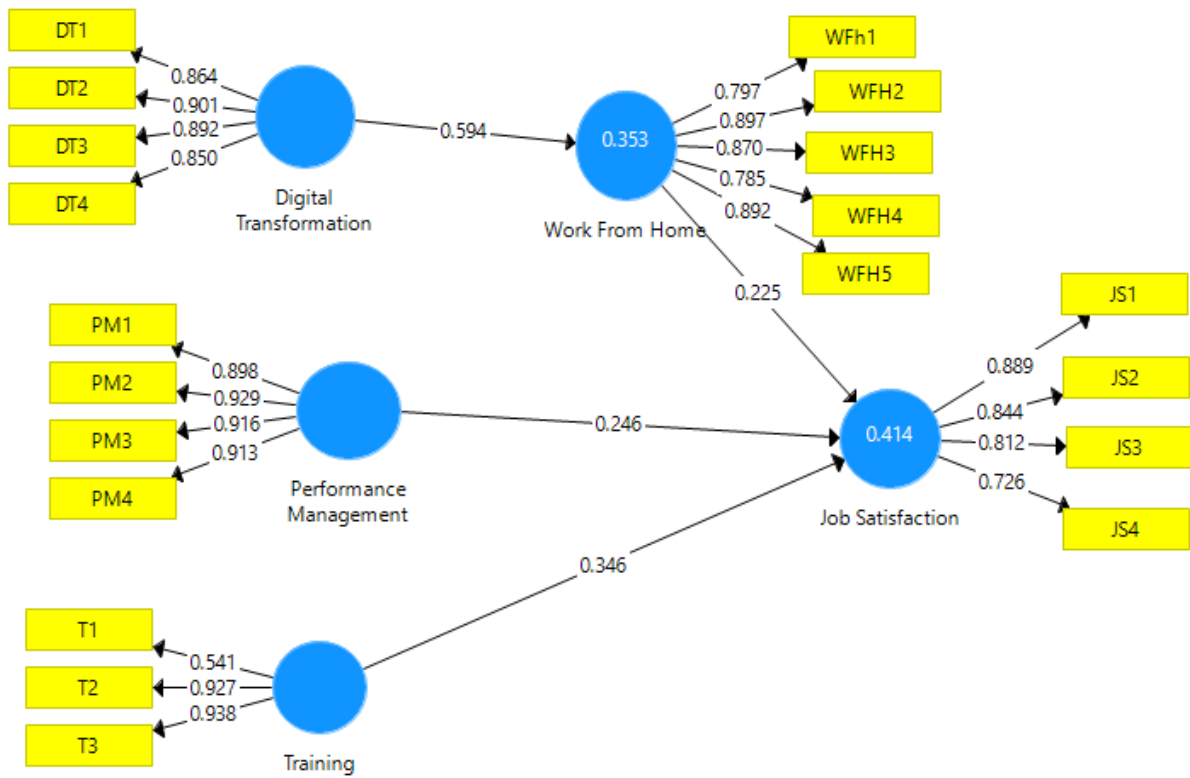



Figure 7: Factor loadings of our items/SmartPLS view of our model

**TAC TRANSLATION SERVICES**

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**English version of the used questionnaire:**

**Work from home:**

- I was allowed to work from home
- Type of my work allows me to work from home
- When I work from home, I am able to understand the expectations of my superior and respect the work schedule
- It is easy to communicate and collaborate with my colleagues while working from home.
- My work environment allows me to be flexible (for example, to have flexible hours)
- In general, I am satisfied with the experience of working from home

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**Digital transformation/Virtual work**

- My work environment gives me access to the infrastructure necessary for undertaking my activities
- The management provides the necessary technical facilities so that I can work
- I received support in the event of uncertainties related to the technical functioning of devices, software, and other issues
- The virtual work, with only a digital contact between me and my colleagues, allowed me to maintain the same level of productivity of my working day

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**Performance management:**

- The supervisors provided feedback on performance to employees during the Covid-19 pandemic
- The supervisors accurately assessed the employees' performance during the Covid-19 pandemic
- The supervisors went "beyond" their professional demands, regardless of their location during the Covid-19 pandemic
- The supervisors communicated adequately with the employees regarding the pandemic

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**Professional training and capacity building of the employees:**

- Professional training during the pandemic (< 2 hours, 2 to 4 hours, 4 to 6 hours,> 6 hours, no training)
- The management provided me with the adequate resources necessary for my skills development
- The organizational development efforts have improved my self-awareness, skills and employability

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**Job satisfaction:**

- In general, I am satisfied with the decisions taken by my organization to prevent the spread of the coronavirus

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Figure 8: Back translation document by a professional translator