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Investigating The Moderating Role of Resilience on the Relationship Between Perceived  
HR Digitalization and Positive Employee Outcomes

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Digitalization and Positive Employee Outcomes

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## **Abstract**

During the Covid-19 pandemic, which broke out in 2019, digitalization accelerated at an unprecedented rate. Due to government measures, companies needed to digitalize very fast and on a massive scale. As a result, working from home practices and flexible working schedules have become the “new way of working” quickly. This transformation had an impact on the well-being, motivation, work effort, commitment of employees.

In this context, HR’s digitalization was crucial for business continuity and employee well-being, and other related organizational outcomes. As a result, resilience became an increasingly important topic of discussion. This study aims to understand the moderating role of employee resilience on the relationship between perceived HR digitalization and positive employee outcomes such as work effort and affective commitment.

For the purposes of this research, a combination of qualitative interviews conducted with 6 employees and survey data collected from 248 participants were analyzed. The results showed a positive relationship between perceived HR digitalization and positive employee outcomes such as affective commitment. This relationship was moderated by resilience. Satisfaction with HR digitalization predicted affective commitment in employees who had low resilience. A positive correlation was found between perceived digitalization and resilience. No strong relationship was found between perceived digitalization and work effort. Perceived digitalization of HR tools and platforms that enabled internal communication and training opportunities positively impacted positive employee outcomes such as commitment and motivation. Employees with experience working digitally and with a higher perceived digitalization reported the most favorable working from home (WFH) experience. Both analysis showed that these employees had a more positive view of HR digitalization.

**Keywords:** HR Digitalization, Resilience, Work Effort, Affective Commitment, Covid-19



## Özet

2019 yılında ortaya çıkan Covid-19, dijitalleşmenin görülmemiş bir hızda artmasına sebep oldu. Devletlerce alınan tedbirler dolayısıyla şirketler hızlıca ve kapsamlı bir şekilde dijital ortama geçmek zorunda kaldı. Bunun sonucunda evden çalışma ve esnek çalışma pratikleri hızla yeni çalışma biçimi olarak kabul gördü. Bu dönüşüm çalışanların refahlarında, motivasyonlarında, çabalarında ve bağlılıklarında çeşitli etkilere yol açtı.

Bu bağlamda, İK'nın dijitalleşmesi işin sürekliliği, çalışan refahı ve benzeri örgütsel çıktılar açısından çok önemli hale geldi. Bunun sonucunda dayanıklılık tartışmalarının önemi gittikçe artmaya başladı. Bu araştırma, algılanan İK dijitalleşmesi ile çalışan çabası ve duygusal bağlılık gibi olumlu örgütsel davranış ve tutumlar arasındaki ilişkide, çalışan dayanıklılığının düzenleyici rolünü anlamayı amaçlamaktadır.

Araştırmanın amaçları doğrultusunda 6 kişiyle gerçekleştirilen sözlü mülakatlar ve 248 kişiden toplanan anket datası birlikte analiz edilmiştir. Sonuçlar, algılanan İK dijitalleşmesi ve duygusal bağlılık gibi olumlu çalışan tutum ve davranışları arasında pozitif bir ilişki göstermiştir. Bu ilişki dayanıklılık tarafından modere edilmiştir. Algılanan HR dijitalleşmesi, dayanıklılığı düşük olan çalışanlarda duygusal bağlılığa işaret etmiştir. Algılanan dijitalleşme seviyesi ve dayanıklılık arasında da pozitif ilişki olduğu görülmüştür. Algılanan İK dijitalleşmesi ile çalışan çabası arasında anketlerde güçlü bir ilişki görülmemektedir. Özellikle şirket içi iletişime, eğitim ve kişisel gelişime olanak veren İK araçlarının dijitalleşmesine yönelik algılar bağlılık ve motivasyon gibi olumlu çalışan davranış ve tutumlarını pozitif yönde etkilemiştir. Evden çalışma bağlamında en olumlu deneyim daha önce dijital olarak çalışma deneyimi olan, dijitalleşme algısı yüksek çalışanlarca aktarılmıştır. Her iki analiz de bu çalışanların İK dijitalleşmesine yönelik en olumlu görüşe sahip olduğunu göstermiştir.

Anahtar kelimeler: İK dijitalleşmesi, dayanıklılık, çalışan çabası, duygusal bağlılık, Covid-19

## 1. INTRODUCTION

Digitalization has been one of the most popular topics of the last decade and its popularity is increasing more than ever. In the organizational context, the digitization of human resources (HR) had started to gain more attention as companies started to realize its importance in terms of strategic consequences. However, it was still not the priority for many organizations until recently. The Covid-19 pandemic which struck the world in 2019 created a huge impact on the lives of employees and increased the importance of HR's digitalization. With the working conditions imposed by the unexpected pandemic regulations, it has become clear for many people and organizations that digitalization is indispensable in the globalized world. Moreover, the digital way of working is seen as the "new way of working" (Fogarty et al., 2020) and the winnings of digitalization are expected to be kept and built upon.

During the pandemic period and the lockdown situations in many countries, it came to the surface that many organizations were not ready to ensure business continuity in times of unexpected, huge, sudden changes such as this. Some organizations needed to find quick-fix solutions for the unforeseen technological needs of long-term homeworking. Many of the big organizations which have a diverse workforce with many different national backgrounds; cross-border workers, distant team members as well as immigrants, ex-pats had to implement digital solutions in order to be able to continue their businesses. The accuracy of the data in the HR systems showed to be the resource that helped the organizations to be prepared for the lockdown situation in a very short time period. The organizational practices which were done in person had to be replaced with new remote practices. The long discussions on organizational matters as well as longsome bureaucratic processes had to be cut shorter in order to reduce the effort on communication. All of these new conditions required employees to adjust to many changes, which created various implications on employee well-being and related business outcomes (De-la-Calle-Durán & Rodríguez-Sánchez, 2021).

The Covid-19 pandemic brought out many consequences on individual well-being. The physical danger of the virus as well as the psychological impact of the traumatic event and the atmosphere of uncertainty created stress globally. Along with this, employees had to change their daily routines, working styles, social interactions, relations to technology among many other workplace practices. Away from the habitual work environment, establishing work routines became a challenge while the borders between the private and professional life got blurry. For example, parents had to take care of their children while working from home. Some employees had difficulties in finding a proper physical space that allows productivity.

Managing time was challenging for some employees and they found themselves working more than before. A lot of people had to start their new jobs without meeting their colleagues in person or without having a chance for proper orientation. The little questions that could be asked from the door in a small office remained unvoiced when it required arranging calls with colleagues. For many organizations, the business expectations from the employees remained the same while the issues that the employees had to deal with increased. Many employees were laid off and many were afraid of being so. These factors, along with their psychological outcomes, brought attention to positive employee outcomes such as well-being as well as organizational commitment, motivation, productivity.

Even though the situation was experienced globally, the consequences were not the same for everyone. The employees who were used to a digital way of working avoided some level of change. Some employees had a more positive view of digitalization than others. Some employees had a better stress management repertoire than others. During this time, two concepts have become more distinctive than ever: the importance of digitalization and the importance of resilience. As digitalization diffuses fast, its implications need to be studied with its various aspects.

Until so far, the focus on resilience and employee well-being is not mature in the literature and it barely exists within the context of digitalization. Within this frame, this research aims to investigate the impact of perceived digitalization of HR on positive employee outcomes such as work effort and affective commitment. It aims to shed light on how these relationships are impacted by the resiliency of the employees. By investigating these connections within the context of digitalization, this research aims to contribute to the literature in terms of understanding if the perception of digitalization can be a factor that helps employees in difficult situations to have an easier experience by making them feel less disconnected. Moreover, as more and more organizations announce remote working positions and plans, it can contribute to the literature by presenting recent evidence in the course of establishing such practices. This way, the impact can be assessed from the perspectives of the employees and their needs can be met in a better way. Establishing a better connection between the employees and the organization during such difficult times can eventually help businesses achieve a competitive advantage in the face of adversity as well.

The structure of this research consists of literature review, model and hypothesis, analysis and results, discussion on results and conclusion sections. In the literature review section, the important concepts of the study will be explained and the theoretical framework will be

introduced. The main concepts to be explained in this section include digitalization as an innovation, various definitions of e-HRM, HR digitalization and its outcomes, resilience, positive employee outcomes such as work effort and affective commitment. The literature review will be followed by a methodology section where the research model and hypothesis will be presented. In the analysis and results section, the qualitative and quantitative methods of the study will be discussed and results will be presented. Finally, in conclusion section, research results will be reviewed based on the theoretical framework and further research suggestions will be proposed.

**2. LITERATURE REVIEW**

**2.1. DIGITALIZATION**

In recent years, digitalization has been one of the most frequently articulated words in the business world. Even though the use of the word is quite frequent, there is still a lack of in-depth understanding of the concepts around digitalization as well as its impact and potential. In the literature, the concept of “digital” is mainly considered under 4 different concepts, which are digitization, digitalization, digital transformation, digital disruption (See: Figure 1) (Strohmeier, 2020). *Digitization* refers to the technical conversion of analog processes into binary digits, which can be interpreted as automation of previously time and effort-consuming processes. *Digitalization* can be achieved when this transition is done purposefully. On the other hand, *digital transformation* indicates a strategic change of the entire organization with the aim of benefiting from the opportunities offered by digital technologies. For the HR department, this can be read as implementing strategies that are based on the assessment of the potential of digital technologies with the aim of value creation rather than adopting technologies to match the pre-existing HR strategies and hoping that it creates value. Lastly, digital disruption occurs when the digitalization of external organizations impacts the processes of a firm.

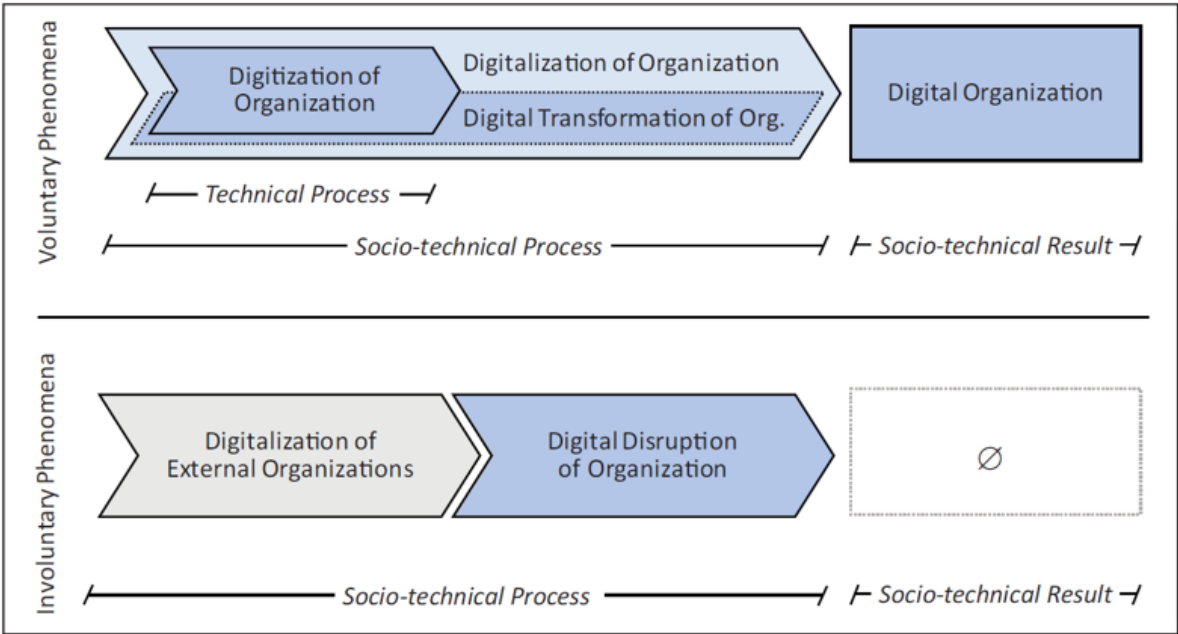


Figure 1: Terminology of Digital Organizations (adopted from Strohmeier, 2020)

Among these four concepts, digitalization and digital transformation have been discussed broadly in the Strategic Human Resources Management (SHRM) research. Many research considered e-HRM as a trend that diffuses more and more under the impact of social factors such as *pro-innovation bias* (Rogers, 2003) or social pressures. For example, Abrahamson attributes some of the digitalization processes to the “bandwagon pressures” created by the competitors or industry leaders that are adopting innovations and creating a fear of falling behind in the other organizations (Abrahamson, 1991). This is claimed to result in futile investments in many organizations which are jumping on the bandwagon with the hopes of gaining value. Social network theory suggests that digital tools and solutions spread among the social networks due to imitation (Kenis & Oerlemans, 2009), which might not necessarily correspond to the adopter’s specific needs. Bandarouk proposes that many organizations adopt digital HR tools to have strategic benefits yet, many of them get stuck at the administrative level and fail to obtain the benefits they desired (Bondarouk & Ruel, 2009).

On the other hand, numerous research perceives the performance of HR as the driver of the success of the organizations in the “knowledge economy” of our times (Chakraborty & Mansor, 2013). People and information technology are considered as the two resources which can “dramatically” affect the success of the business (Teo et. al, 2007) and proper adoption of e-HRM systems is claimed to stimulate organizational success by combining these two resources; people and technology (Sareen 2012, Teo et. al, 2007). Bandrouk and Ruel (2013) argue that e-HRM is expected to bring two strategic advantages for the human resources function; transforming HR’s role to strategic business partner and bringing HR’s time investment on strategic HR issues. The main goals attributed to e-HRM in the literature are reducing the costs, improving HR services, improving the strategic orientation of the HR function (Bandrouk & Ruel, 2013; Bondarouk et al.,2017). Moreover, the value added by HR is often associated with its ability to create competitive advantage (Troshani et al., 2010; Pfeffer et al., 2002). Properly implemented and consciously used e-HRM systems are often associated with the potential to create this competitive advantage (Lippert & Swiercz, 2005; Campbell et al, 2012). At least, competitive advantage is often mentioned as one of the most prevalent motivating factors behind the diffusion of digital tools, solutions, strategies. During times of crisis, both the diffusion process and the opportunities for competitive advantage through innovations change.

The Covid-19 pandemic served as a driving force in the adoption of digitalization at an “unprecedented” speed and extent (Aurelia & Momin, 2020). According to a survey conducted on behalf of McKinsey (LaBerge et al., 2020), participants reported that their organizations have digitalized 20 to 25 faster than they had foreseen. This pace exceeded their expectation by

40 times. The investment into HR digitalization increased to triple the amount of the investments in 2017 by reaching 3.1 billion dollars and it is expected to reach 30 billion dollars by 2025 (Aurelia & Momin, 2020). Moreover, employees' expectation for an implementation process was one year whereas it only took 11 days to implement digital solutions in reality (LaBerge et al., 2020). According to the prominent "Innovation Diffusion Theory" of Everett Rogers (2003), diffusion is a type of communication. Rogers identifies four elements for the diffusion of innovations. These are; innovation, time, social system, communication channels. Under normal circumstances, innovations are evaluated based on factors such as their relative advantages compared to other innovations, compatibility with existing systems, complexity and simplicity, trialability before full adoption, and observability of its consequences. For an adoption decision to be made based on these characteristics, the adopters pass through knowledge, persuasion, and decision stages, which will be followed up by implementation and re-invention stages to complete the adoption circle. During times of crisis or abrupt changes, organizations might not have the time and opportunity to evaluate these features properly, hold enough internal discussions and external observations, as a result of which; innovations might skip these stages. Therefore, the consequences might be different than what is previously known in the literature, which makes it necessary to broaden the previous research and redefine some of the concepts within this context.

The Innovation Diffusion Theory also divides the adopters into 5 categories which are innovators, early adopters, early majority, late majority, and laggards. During normal times, innovators are the "gatekeepers" of innovations coming in to the system. Early adopters lead the way to broader adoption of the innovation as "opinion leaders" who reduce the doubts regarding the innovations. This is followed by the early majority which constitutes the biggest group in the adoption categories. They are the follower of the innovations with a positive attitude towards innovations, however, they do not drive the adoption per se. On the other hand, the late majority and laggards are known for their skeptical attitudes and resistance. Late majority adopters tend to adopt mostly under environmental pressures while laggards tend to base their adoption decision on what was done by the other peers in the past (Rogers, 2003). As it is possible to imagine, behavior of these categories and their positioning in the competitive business area might be affected during the mass adoption times such as periods of a pandemic. For example, organizations that have already been digitalized might benefit from their previous investments in the technology more than laggards. The level of digitalization in an organization might be a key player in the success of businesses during this period. The experiences of the

employees in an already digitalized organization and the other might result in different individual consequences such as varying levels of employee work effort or commitment.

Until so far, the discussion in the literature as to the consequences of digitalization has not been settled. However, it is known that the period of pandemic brought about a serious amount of new digitalization related challenges to organizations in terms of remote working conditions, leadership, collaboration, or well-being (Caligiuri et al., 2020) With this recent unexpected and inescapable boost in digitalization during the period of Covid 19 pandemic, the importance of digitalization and digital transformation increased even more. As a result of the changing external conditions, the diffusion of digital tools and strategies had to happen in an abrupt way and has become a topic of priority for many businesses who were not planning to participate in digital adoption. The general impression is that, from this moment on, digitalization will shape the future of the workforce and will become only more involved in our lives (Hu, 2020; Whitby et al., 2020). Barney suggests that the value of a resource by its capacity to “exploit opportunities and or neutralizes threats in a firms’ environment” (Barney, 1991). In this extraordinary situation, digitalization might have been one way to create competitive differentiation among organizations that were more advanced in digitalization compared to the ones that were not prepared at all.

Barney also argues that rare, valuable, imperfectly imitable and non-substitutable characteristics of the firm’s resources can bring competitive advantage (Barney 1991). He considers the resources that enable organizations to envision strategies that can create an increase in efficiency and effectiveness as a part of this (Barney, 1991). In order to achieve all of these, the harmony of the digital tools with the people resource and the strategy is necessary. The tools can be adopted by any other organization but the harmony of these resources is difficult to imitate. Therefore, if it can be done correctly and accepted by the employees, digitalization of HR activities can be a means to make HR a strategic business partner (Yusoff et al., 2015). In this regard, it becomes more important than ever to consider the employee-related aspects of e-HRM adoption and consequences regarding such as well-being, work effort, or commitment.

Some scholars mention that organizational success is closely related to the factors such as the capabilities of the HR management, agility, learning potential, speed, and employee competence (Huselid et. al, 1997; Saha et. al, 2017; Brockbank, 1999; Ulrich, 1998). In a similar way, Beckers and Basat emphasize that competitive advantage is closely connected to innovation, customer service, efficiency, quality, and competitive advantage strategies such as



low cost, differentiation, and focus (Beckers & Bsath, 2002). e-HRM system is claimed to have a value-adding potential as a means to develop organizational agility, learning, and innovation (Marler, 2009).

In addition, “innovative work practices” such as e-HRM are claimed to increase work efficiency by allowing employees to redesign their own way of doing their jobs based on their first hand knowledge and experience (Ichniowski et al., 2008). In return, this can reduce the workload of supervisors and middle managers (Ichniowski et al., 2008). Thanks to digitalization, employees can get informed about the organizational updates and join online conversations (Bondarouk et al., 2004). Furthermore, e-HRM is claimed to lead to better decision making as well as to stimulate new ways of thinking (Kovach & Cathcart, 1999) and encouraging employees to take initiatives (Chakraborty & Mansor, 2013). e-HRM also has a potential to improve the employee skills by broad training and development activities (Huselid & Delaney, 1996), which enable them to determine their career developments based on web based HR tools (Bondarouk et al., 2004).

Moreover, digital HR practices such as learning opportunities help increasing employee well-being and, as a result, employee health and productivity (Van Dam et al., 2020). Transparency about rewards and compensation, standardisation of HR practices are claimed to increase employee confidence, pride and trust (Martin et al., 2008; ) which is associated with supporting employee well-being during Covid-19 (De-la-Calle-Durán & Rodríguez-Sánchez, 2021). As exemplified above, digitalization has a lot of potential to improve organizational success at the firm level and employee level. Therefore, as well as the organizational outcomes, the impact of HR’s digitalization on the employee related outcomes which can increase their productivity as a mutual gain is worthy of attention.

## 2.2. DEFINITION of e-HRM

Previous literature suggests numerous different definitions for Electronic Human Resource Management (e-HRM) (Alghafri, 2015; Sareen, 2012). e-HRM has been used interchangeably with a lot of other terms among which are HRIS, e-HR, HR intranet, virtual HR, HR portals, web-based HR. However, even though these concepts are used alternatively, some scholars argue that e-HR and HRIS are fundamentally different (Bondarouk et. al, 2004). Bondarouk and colleagues claim that HRIS consists of the technologies that are used within the HR department whereas e-HR extends beyond the HR department. Another difference is that e-HRM is associated with HR strategy whereas HRIS is considered as IT-based technologies used for operational HRM (Bondarouk and Ruël, 2009). HRIS is used for technologies that aim to increase efficiency in the administrative processes and improve decision-making by providing various reports (Lengnick-Hall, 2003).

In one of the earliest definitions, DeSanctis defines digital HRM as a “*specialized information system within the traditional functional areas of the organization, designed to support the planning, administration, decision-making, and control activities of human resource management*” (DeSanctis, 1986). On the other hand, Bondarouk and Ruël (2009) argue that IT-based definition with an operational HRM focus would indicate simplification of e-HRM’s role in the transformational outcomes such as employee involvement and workforce alignment. In their view, this reduces the value added by e-HRM only to indicate the improvements in the administrative systems. Alternatively, they emphasize its role in transformational business functions such as strategic management and define e-HRM as “*an umbrella term covering all possible integration mechanisms and contents between HRM and Information Technologies aiming at creating value within and across organizations for targeted employees and management.*”. Some of the other commonly used definitions of e-HRM are included in the table below (See: Table 1).

Earlier e-HRM research	e-HRM Definition
DeSanctis, 1986	<i>“specialized information system within the traditional functional areas of the organization, designed to support the planning, administration, decision-making, and control activities of human resource management”</i>
Lengnick-Hall & Moritz, 2003	<i>“ technological tools needed to conduct basic HR transactions using the web”</i>
Stroheimer, 2007	<i>“e-HRM is the (planning, implementation and) application of information technology for both networking and supporting at least two individual or collective actors in their shared performing of HR activities”</i>
Bondarouk et. al, 2009	<i>“an umbrella term covering all possible integration mechanisms and contents between HRM and Information Technologies aiming at creating value within and across organizations for targeted employees and management.”.</i>

*Table 1: Definitions of e-HRM*

Human Resources Management (HRM) involves managing organizational resources wisely. As defined by Bondarouk and colleagues (2009), this requires considering the technological resources and human resources together. Therefore, e-HRM itself has a strategic meaning involved within the concept. As the focus of this research is employee-related outcomes and strategic aspects of the HR department within the whole organization, digital HR practices will be taken into consideration as a whole and “e-HRM” will be used throughout the research.

### **2.3. DIGITALIZATION OF HR (e-HRM)**

The impact of HR's digitalization on the efficiency of HR operation and the organizations has been proposed by a vast amount of research (Beckers & Bsath, 2002; Huselid et al., 1997). The research in e-HRM dates back to 1995 (Strohmeier 2007). Since this date, the research accumulated on two aspects of e-HRM; expectations and the benefits. In 2016, Bondarouk and Ruel analyzed the research in the field of e-HRM from the 1970s until 2010 and identified 168 factors responsible for e-HRM adoption and 95 factors for e-HRM consequences (Bondarouk et al., 2017). In an earlier model created by themselves, they identified the constituents of e-HRM outcomes as cost-effectiveness, congruence, competence, and commitment. They identified the goals of e-HRM as improving HR's strategic role, improving client service and improving efficiency and administrative processes (Bondarouk et. al, 2004).

e-HRM is divided into three categories which are based on operational, relational and transformational aspects (Fındıklı & Bayerçelik, 2015). e-HRM's goals and outcomes are discussed under these categories. Operational e-HRM goals focus on productivity, cost reduction, automation, and speeding up the processes. It mainly includes improving the administrative functions of HR such as payroll or employee data (Fındıklı & Bayerçelik, 2015; Bondarouk et. al, 2004). Relational e-HRM goals focus on improving stakeholder relations and service delivery. It includes improving the employee and line manager interactions and increasing collaboration. It aims to improve the efficiency and effectiveness of services such as recruitment, selection, training, performance management, appraisal, and rewards (Bondarouk et. al, 2004; AbuZaineh & Ruel, 2008). In this way, it can increase the speed and responsiveness of the HR department as well as improving HR's service quality (Beckers & Besath, 2002). Moreover, increasing the interaction of the employees with the HR processes increases the awareness of HR as well (Hendrickson, 2003), which might help HR to have a strategic position. The transformational goals of e-HRM refer to the goals that are related to strategy and creating corporate value such as knowledge management. The main aim is to develop a workforce who are adaptable to changes and can liaise with the company's strategic orientation and take part in creating value (Bondarouk et. al, 2004; Fındıklı & Bayerçelik, 2015; Stroheimer & Kabst, 2014).

In general, along with the administrative tasks, the most common HR practices include planning, recruitment, training and development, performance management, compensation and benefits along with protecting employees in terms of legal aspects as well as health and safety (Fındıklı & Bayerçelik, 2015). HR's digitalization is associated with a lot of promises in these areas. The potential outcomes of digital HR will be summarized in this section.

### **2.3.1. Administrative Function**

According to the literature, e-HRM helps to reduce costs by automating or outsourcing HR transactional functions (Marler, 2009). This cost reduction extends from using less pen and paper to employing fewer HR personnel for entry-level administrative positions. By taking the burden of administrative processes, it is expected to allow time and resources for analytical positions, which can connect HR with the strategic plans of the organizations (Beckers & Bsai, 2002) Also, by enabling employees to enter and update data by themselves, e-HRM is claimed to ensure more accurate data in less time and reduce the work of the HR personnel (Chakraborty & Mansor, 2013; Hendrickson, 2003) and decrease the chances of human error (Panayotopoulou et al., 2007) as well as preventing the overlapping work (Nivlouei, 2014). Thanks to e-HRM, HR departments can keep the employee information, policies, and procedures in one system which can increase the efficiency and effectiveness of the HR processes (Hendrickson, 2003). Through digitalizing file maintenance and documentation as well as enabling quick access to information, it can save the time of the HR professionals or reduce outsourcing (Moustaghfir, 2014). By enabling accelerated information processing, it can increase productivity (Marler & Parry, 2016).

### **2.3.2. Recruitment**

e-HRM provides the opportunity to access a broader pool of potential employees which might accelerate the recruitment process (Mukherjee et al., 2014). e-Hrm practices such as e-recruiting and e-learning can help organizations obtain unimitable, rare, valuable human resources (Wright & McMahan, 1992; Strohmeier, 2007; Huselid et al., 1997).

### **2.3.3. Performance Management**

e-HRM serves as a “portal” that allows managers, employees, and HR professionals to view, extract or alter data needed to manage the HR (Yusliza, 2012) in a simultaneous fashion. It gives them control of their data to the employees themselves and makes it easier for the managers to base their decisions and analysis on the data in the system without any mediation from the side of HR. On the other hand, platforms and tools which keep the data regarding employee skills and knowledge enable employees to assess their skills and the requirements of their further goals (Rothwell & Arnold, 2005) and e-HRM can help such organizational decisions. By enabling immediate feedback between the supervisors and the employees, it can help to maintain employee motivation and performance (Ederer, 2010; Sailer et al., 2013).

#### **2.3.4. Compensation and Benefits**

e-HRM enables employers to respond to changing business environments by targeted compensation programs or arranging better salary and benefit options, optimize the training needs and costs (Lippert & Swiercz, 2005).

#### **2.3.5. Training and Development**

IT literature mentions HRM as a service system that creates value through knowledge-based interactions; such as configurations of the capabilities, the clients, competitors, and itself (Maglio & Spohrer, 2008). By providing flexible and broad opportunities for learning and sharing, it enables the employee's knowledge to transform into collective knowledge (Huselid et. al, 1997). As quoted by Kovach, e-HRM is expected to bring benefits to suppliers, consultants, and other stakeholders by enabling better connection through wireless means and allowing easy access to essential information (Kovach et. al, 2002).

Known as high-commitment HR practices, training and development opportunities are perceived as supportive HR practices and positively impact employee performance (Erim, 2018). Such organizational investments help employees to feel justice and might produce positive outcomes such as employee's identification with the company and increased commitment (Erim, 2018).

#### **2.3.6. Internal Communication and Mentorship**

e- HRM is argued to make internal communication easier and more practical (Panayotopoulou et al., 2007). One of the challenges of remote working is to maintain effective communication among the team members, supervisors, mentors. Lack of such communication can create difficulties in coordinating work, maintaining motivation, ensuring commitment, and establishing trustful relationships (Kahai et al., 2013). Leader support is also known to promote proactive employee behaviors (Wu & Parker, 2016). e-HRM can help with establishing better connections between the various stakeholders involved in the organization. Research shows that e-HRM serves as a channel that supports intangibility, simultaneity, and customer participation including the internal HR customers such as line managers and employees (Bondarouk et. al, 2015).

Moreover, information technology is expected to bring transparency into the employee's labor, interactions, and performance (Avolio et al., 2014). This enables employees and supervisors to be aware of each other. As well as connecting team members around the same goals, e-HRM also ensures continuity of interpersonal relationships. During times of crisis, communication between colleagues, the guidance from leaders and mentors become even more important.

Under remote working conditions, e-HRM offers means to ensure continuous communication between the leaders, mentors as well as other team members. As shown in resilience research, such HR practices can enhance employee resilience (Bardoel et al., 2014).

### **2.3.7. Orientation**

Orientation is defined as “successful induction practices 1) help new employees settle into their environment, 2) help them understand their responsibilities, and 3) ensure that the organization received the benefits of well-trained, highly motivated employees as quickly as possible” (Robinson, 1998). Employee orientation includes teaching new employees the organizational culture, philosophies, and initiatives (Akdere & Schmidt, 2008). This way, employees are expected to adapt to the company and the teams. To achieve this, companies provide the new employees with relevant online training, information sessions, team building events, or other such programs and activities.

Thanks to all of the reasons above, HR’s contributions to the organization move from administrative context to strategic context. In such a strategical context, the efforts of the HR managers focus on building HR policies in line with the product or service strategies in order to develop internal resources through practices that enrich organizational culture and routines (Marler, 2009). Even though it has not been the main focus of research in HR’s digitalization, one of the benefits of expanding the focus of the HR department to organizational culture and routines is that it can give a better work experience for the employees which allows their growth and well-being. It is claimed to lead to better decision-making as well as to stimulate new ways of thinking (Kovach & Cathcart, 1999) and encouraging employees to take initiatives (Chakraborty & Mansor, 2013).

During the Covid-19 pandemic, the roles and responsibilities of the HR department had to be redefined and its importance has become more clear. The strategic role of HR partners came to the surface. With the lockdown situation imposed by the governments, most of the face-to-face interactions have been replaced with virtual practices. HR leaders had to decide how to plan the workforce according to the new situation, which employees could work from home, how the technological requirements could be provided, how the communication would be adjusted and many other questions had to be answered by them (Aurelia & Momin, 2020). The employees’ biggest concerns have become their health and job security (Aurelia & Momin, 2020). Along with the physical threat of the virus, the uncertainty in the environment and increasing concerns on the employee side highlighted other aspects of e-HRM in managing this. e-HRM had to be the means to lead for the managers in the distant working conditions. It enabled collaboration

among the employees and helped them face the challenges with the teams and their leaders. Organizations were able to provide various training opportunities to the employees. World Health Organization announced that the mental health of the employees has been affected by the pandemic as well (WHO, 2020). e-HRM offered solutions to this, such as providing opportunities for team buildings or exercise classes which are claimed to assist employees in times of stress. Compulsory working from home conditions created difficulties for the employees who did not have ideal conditions for work. For example, it made it difficult to separate professional life from the personal life for many employees which lead to exhaustion (Daraba et al., 2021). As the stressful situation put pressure and employees as well as organizations, the *resilience* came under the light both at the organizational level and at the employee level.



## **2.4. RESILIENCE**

The physical threat of the Covid-19 pandemic includes two-week-long quarantine periods, hospitalization due to the virus, and at the most extreme cases the death (Jones, 2021). This created a worldwide emergency, which resulted in a lot of changes in the private and professional lives of the employees. As a result, employee mental health was threatened as well (Jones, 2021). A lot of employees reported psychological difficulties such as stress, loneliness anxiety, depression, issues with domestic relationships, job insecurity, and financial problems (Jones, 2021; Killgore, 2020; Caligiuri, 2021). In this context, resilience became an essential topic for businesses.

Psychological capital plays an essential role in how stressful situations are survived. Luthans and colleagues define psychological capital by four factors which are self-efficacy, optimism about the future and present success, paving towards a goal and having to hope to redirect it when needed, and resilience (Luthans et al., 2007) or even thrive. As in this definition, resilience is one of the factors that helps employees to survive stressful situations (Avey et al., 2010), maintain employee health, and sustain business continuity.

The origins of resilience and related research are not clear in the literature. Some resources claim that the concept of resilience and the related research appeared in the 1970s in the clinical context (Cooper et. al, 2018) whereas some others claim that it dates back to the 1800s (Tusai & Dyer, 2004). There is also various research claim that the term originated in the fields of child psychology and ecology (Batabyal, 1998) or traumatology (Graber et al. 2015), but its use extended to many other fields such as environmental science, organizational studies, and engineering (Kantur & Say, 2012). With the shift of focus in psychology from the weaknesses of the employees to their strengths, resilience came under the light, and practices to increase wellness, prosperity and good life gained importance (Luthans, 2002) also in the field of organizational psychology.

As defined in the Merriam-Webster dictionary, resilience comes from the study of physics and describes the process of elastic material which changes shape by pressure, coming back to its previous form after the pressure is removed. This term is used also to metaphorically describe a person's ability to bounce back after a strong hit by a difficulty (Webster, 1977). As it can be concluded from this definition, resilience requires having enough space to protect the previous form, this means having resources already set in place, which enables the organization and the employees to sail through organizational traumas, crises, mergers, or other sudden changes with the least harm. It is often considered as a "reflex" -which is deeply carved into someone's mind

and soul (Coutu, 2002). Therefore, it is not likely to be built in the course of terrible events and successfully assists the organization. It has to be considered as a part of the strategic agenda during times of relative calm (Bardoel et al. 2014) and it should be worked on so that it can effectively come into play in the course of an unfortunate event, crisis, or other situations that cause significant adversity.

In organizational studies, the contexts that are mostly associated with resilience are crisis management, disasters, high-reliability organizations (HROs), and positive organizational scholarship literature (Kantur & Say, 2012). Some of the situations that can be exemplified in resilience research include economic recessions (Williams & Vorley, 2014), human errors (Sheridan, 2008), natural disasters (Barasa et al., 2018), financial crisis, supply chain failures, product manufacturing errors, industrial incidents or human resources issues (Al-Ayed, 2019). Sinclair et al. (2016) suggest that significant adversity can be solidified by 4 factors, which are intensity, frequency, duration, and predictability of the event. For example, in the case of the recent period of the pandemic, the unpredictable situation has lasted for more than a year with intense consequences on a global scale. Therefore, the intensity of the workplace stressors increased, which made it clear that the discussion of resilience is important, and more and recent research is needed to understand it better.

In the existing literature, there is a lack of clarity in the definition and conceptualization of resilience (Duchek, 2019). Its antecedents and assessment are still vague (Sinclair et al., 2016). Luthans describes resilience as a “positive bounce-back reaction” that enables the person to deal with adversity, uncertainty, conflict, failure as well as positive changes, progresses, and situations of increased responsibility (Luthans, 2002). Kantur and Say (2012) point to the different connotations of resilience in psychology and ecology. While resilience is associated with the optimism and buoyancy of the individual in the domain of psychology, it is associated more closely with flexibility and pliability in the domain of ecology. McManus defines organizational resilience as “the ability of a system to absorb change and continue to operate” (McManus et. al, 2008). Mallak’s definition adds that these positive adaptive responses should come rapidly with minimal pressure (Mallak, 1998).

According to a literature review in 2011, as many as 122 definitions were identified for the resilience construct (Meredith et al., 2011). However, the basic understanding of resilience is constructed around certain aspects. For example, in their literature analysis, Meredith and colleagues find that definitions of resilience mostly fit in three categories; definitions that describe resilience as a process or capacity which develops over time, definitions that

emphasize the adapting and returning to a baseline after an adverse situation, definitions that involve growth after the adversity (Meredith, 2011). Meredith also explains the psychological resilience factors as individual level, family level, unit-level, and community-level factors. He suggests that individual factors such as positive coping, positive affect, positive thinking, realism, behavioral control, physical fitness, and altruism; family-level factors such as emotional ties, communication, support, closeness, nurturing, and adaptability; unit-level factors such as positive command climate, teamwork, and cohesion; community-level factors such as belongingness, cohesion, connectedness and collective efficacy important elements of resilience (Meredith, 2011). In its essence, resilience is defined by basic human adaptational systems such as self-regulation, a positive view of the self, or intrinsic motivation (Masten, 2001).

In the organizational context, resilience is mostly discussed at two levels: the organizational level and the employee level. However, the concept of organizational resilience is closely related to the concept of employee resilience at the individual level (Kuntz et al., 2017; Bhamra, 2011). While organizational resilience focuses on enterprise-level strategies, employee resilience focuses more on individual rehabilitation or the development of personal resources as well as considering the stress and well-being-related indicators to measure resilience (Kuntz et al., 2017).

McManus et al. (2008) propose three characteristics for a resilient organization, which are understanding the situation, managing the organization's weaknesses and adaptive capacity. That is, they consider the overall awareness of the situation and they can manage main vulnerabilities, and adapt to new situations quickly and effectively. Kantur & Say (2012) propose an integrative framework for organizational resilience which places the factors increasing the resilience into four categories, which are perceptual stance, contextual integrity, strategic capacity, and strategic acting. The perceptual category includes the sense of reality and wisdom, positive perceptions, unified commitment. Contextual Integrity consists of employee involvement, compatible interaction, and a supportive environment. Strategic Capacity contains resource availability, employee capability, and focused strategy. Lastly, strategic acting includes creativity, flexibility, and proactiveness. Organizations operating with these capacities are expected to be positioned higher in terms of resilience. That being said, it is important to mention that some scholars such as Al-Ayed (2019) differentiate organizational resilience from organizational flexibility and organizational adaptation. According to this opinion, organizational flexibility refers to the ability to make a required change and organizational adaptation refers to the capacity to meet the requirements of the surrounding

environment. Organizational resilience indicates being able to give appropriate responses to the events and situations promptly in a timely manner and at the same time, making changes to minimize the impact of the events on the organization. As one of the core elements of the organization, the resilience of employees has a role in creating organizational resilience (Shin et. al, 2012; Bhamra, 2011; Lengnick-Hall, 2011).

Employee resilience, in the broad definition, is differentiated from individual resilience. Nashwall and colleagues define employee resilience as “the capacity of employees, facilitated and supported by the organization, to utilize resources to positively cope, adapt and thrive in response to changing work circumstances” (Näswall et al., 2013). Employee resilience can be beneficial both in proactive and retroactive ways. The research argues that the more resources the individuals have the less vulnerability they show in the face of adversity and the better they accumulate further resources (Shin et al, 2012). Therefore, employee resilience can help recovery from negative events or it can lead to proactive learning and growth for future challenges (Luthans, 2006). In the literature, these two interpretations of resilience are known as rebound-oriented views of resilience and transformational view of resilience. The rebound-oriented view of resilience associates resilience with the capacity for restoration whereas the more recently accepted transformational view foresees a preventive capacity in resilience (Lengnick-Hall et. al, 2011). These two views agree that organizational resilience and employee resilience can lead to important consequences.

The research holding the transformational view indicates that positive emotions are correlated with an individual’s well-being which can have positive consequences for the individual both in a private context and in a professional context. For example, emotions such as joy, interest, contentment might broaden the span of attention, thoughts, actions of an individual as well as encouraging them to be open to new information or invoking creativity. These emotions can motivate individuals to foster better social relations and long-lasting interpersonal bonds In these ways, it can contribute to the individuals’ physical, intellectual and social resources (Fredrickson, 2001). According to the well-known stress theory known as the Conservation of Resources theory (COR), these capitals can be very important in managing well-being during stressful times and increase the resilience of the individuals (Hobfoll et. al, 2015).

Conservation of Resources theory argues that individuals operate on the basic principle of obtaining, retaining, and protecting their resources, which refers to the things that they value (Hobfoll et al., 2015). The theory divides these resources into four categories which are objects such as the individual’s physical belongings, conditions such as their job stability, personal

characteristics such as their self-esteem, and energies such as credits or money. Individuals experience psychological stress when these resources are threatened, lost or when they do not obtain the benefits that they hope for in exchange for their investments in the resource (Hobfoll, 2001; Golembiewski et al., 2001). During times of change, individuals are likely to experience stress, especially if the change is negative and the current conditions are worsening. More importantly, the change that involves loss is known to be the most stressful of all changes (Golembiewski et al., 2001). For example, the possibility of losing one's job during a pandemic situation might be an example of such a loss that caused stress on some employees. According to the Conservation of Resources theory, individuals who have more resources or less susceptible to resource loss have a greater capacity to obtain more resources (Golembiewski et al., 2001). This separates resilient individuals from the non-resilience ones.

Resilient employees are claimed to differ from the non-resilience employees in a stressful situation by their resources such as flexibility, motivation, perseverance, optimism (Bhamra, 2011). Johnson & Wiechelt support that resilience helps individuals preserve hope and health despite difficulty (Johnson & Wiechelt, 2004). Resilient employees are claimed to be less prone to the negative impacts of job insecurity, emotional exhaustion, or burnout and more motivated to adapt to new situations. They are expected to show less counter-productive work behavior tendencies and they tend to be less suspicious of their organizations in terms of keeping promises (Shoss et. al, 2018). As they can have a more positive view of the situation as well as their organizations, they can survive difficulties with less harm and they can show better performance (Cooper et al., 2018) and commitment (Meng et al., 2017). For organizations, employees who can maintain their optimism, hope, effort despite difficulty can be valuable resources in the face of adversity.

Resilient employee behaviors consist of network leveraging, learning, adaptability (Kuntz et al., 2017). Sinclair and colleagues make a distinction between the capacity for resilience and the demonstration of resilience. In their integrative framework for employee resilience, processes that reflect the capacity for resilience include an appraisal of adversity, coping with adversity, and seeking help from others. The positive adaptation -demonstration of resilience- is reflected through job performance, low symptoms, high well-being, and healthy relationships. (Sinclair et al, 2016). Coutu (2002) defines resilient people with a capacity to accept harsh realities, finding meaning in difficult times, and being able to improvise with whatever is at hand. These factors enable resilient employees to rebound from the difficulties in the workplace and grow stronger by learning from them (Shoss et. al, 2018).

More recently, within the frame of Positive Psychology, resilience started to be seen as a developable capacity rather than a merely innate trait (Duchek, 2019; Luthans et al., 2006). The theory advocates for focusing on the strengths and psychological capitals (PsyCap) of the employees in order to improve the performance instead of trying to fix the negative aspects. This view is centered on promoting positive organizational behavior and claims that resilience can be increased through certain practices that aim to motivate and lead poorly performing employees or change their non-productive attitudes and behaviors (Luthans, 2002). It takes the PsyCap as the “core construct” of organizational behavior (Luthans et al, 2006) and aims to increase the psychological capital of the employees. According to this view, resilience capacity can be an enhancing factor of other psychological capital traits such as confidence (self-efficacy), optimism or hope (Luthans et al., 2006).

As a developable capacity, resilience is claimed to be enhanced through strategic human resources management (Luthans et al., 2006; Avey et al., 2009). By building knowledge, skills, abilities, and other such attributes as well as establishing collective routines and processes Strategic HR practices can lead to enhanced resilience (Lengnick-Hall, 2011). For example, by increasing the opportunities for connection between employees and their mentors as well as their peers, as suggested by Guest, well-being-oriented HRM practices can be a way to increase employee resilience (Guest, 2017). Alternatively, training opportunities are mentioned as an effective way to increase employee resilience (Avey et al., 2010) by increasing hope or self-efficacy (Alqurashi, 2016). Also, internal communication solutions can provide the social support opportunity for the employees by which resilience can be increased (Longstaff & Yang, 2008). Within this frame, it is important to investigate the relationship between e-HRM practices and employee resilience.

## **2.5. POSITIVE EMPLOYEE OUTCOMES**

### **2.5.1. Work Effort**

As mentioned earlier, in today's environment, competitive advantage is closely related to the valuable, inimitable and rare resources of the organization (Barney, 1991). The performance of the organization is affected by these resources and their level of productivity and performance. Therefore, the factors that affect employee productivity have been an area of great interest. Among these factors, employee motivation, work effort, and commitment have received great attention in the literature (Allen & Meyer, 1996; Erim, 2018; Kanfer, 1990) as they are thought to lead to increased productivity by bringing out positive outcomes such as job satisfaction or performance (Erim, 2018).

In the domain of organizational psychology, performance refers to any behavior that is focused on achieving a goal or completing a task (Campbell & Pritchard, 1976). The definition of performance consists of many factors from the willingness to work and persisting on the task to environmental factors that are at play. In this discussion of employee performance, one of the most prominent questions has been how employees get motivated to exhibit such efforts. However, even though the motivation research has a long history, many scholars acknowledge that the definition and conceptualization of motivation are not easy due to the complexity of human behavior (Campbell & Pritchard, 1976; Golembiewsky, 2001). According to Campbell and Pritchard, motivation consists of three determinants which are the choice to start the effort on the task, the choice to spend effort, and the choice to keep this effort in the long run (Campbell & Pritchard, 1976). The work effort as a component of motivation is defined as "the means by which motivation is translated into accomplished work" (Parson, 1968, cited in Erim, 2018). Brown and colleagues summarize the determinants of effort as duration, intensity, and direction (Brown & Leigh, 1996; Erim, 2018).

The theories of motivation are divided into two streams which are content theories and process theories along with other theories beyond these categories such as equity theory. Content theories are structured around the factors that affect employee behavior such as work effort in terms of rewards in the job context and basic human needs as opposed to the process theories which take into consideration how these behaviors are accomplished (Campbell & Pritchard, 1976). The factors that are discussed in the motivation models of process theories mainly include reinforcement, drive (need), and incentives (Campbell & Pritchard, 1976). For example, Vroom's model of work motivation which is known as Expectancy-Instrumentality-Valence (VIE) Theory, suggests three aspects that affect the choice of a behavior. These are known as

valence, instrumentality, and expectancy regarding the outcomes of the behavior and they determine the choice (Van Eerde & Thierry, 1996). In this model, valence defines the attractiveness or anticipated satisfaction with the outcome and it is associated with the amount of effort spent on certain goals. Instrumentality refers to the probability of reaching the outcome with the choice and it is associated with the relevancy of the outcome. Lastly, expectancy corresponds to the chances of one outcome to bring another outcome as a consequence and it is related to the potential of the outcome (Van Eerde & Thierry, 1996). In another model, Porter and Lawler (1968) make a distinction between these outcomes such as intrinsic rewards exemplified with a feeling of satisfaction and extrinsic rewards exemplified with verbal appreciation from an external party (Aslan et al., 2011) or financial rewards. They suggest that the behavior is selected based on the probability of achieving the performance outcome as a result of the effort (effort-to-performance expectancy) and the expectancy of a positive outcome if the effort is exerted (performance-to-outcome expectancy) (Miner, 2005). In addition to this, they add the “feedback loop” concept which suggests that the self-esteem which increases after the outcome is achieved creates higher expectancy and motivates more effort (Miner, 2005).

Some of the content theories explain motivation in taxonomies of needs. For example, the Needs Theory proposed by Murray explains motivation in 5 categories each of which includes factors exemplified with achievement, affiliation, recognition, to co-operate with a leader (deference), to influence and control others (dominance), autonomy, counteractive attitude (counteraction), to attract attention and be seen (exhibition), avoiding embarrassment or failure (infavoidance), protect and care for others (nurturance), inquiring attitude (cognizance) (Murray, 1943). Maslow’s theory of hierarchical needs proposes physiological needs, safety needs, belongingness or social needs (love needs), esteem needs, and self-actualization as the needs that motivate individuals for action (Maslow, 1943). Alderfer’s Existence, Relatedness, Growth (E.R.G) theory explains the needs of the individuals in three categories which are existence needs, relatedness needs, and growth needs (Alderfer, 1969). Other content theories explain motivation in terms of rewards taxonomies. For example, Herzberg’s Two-Factor Theory, which consists of motivation and hygiene factors, suggests that work motivation is related to intrinsic factors (motivator) such as the need for growth, recognition, achievement, advancement, tasks, and responsibility as well as environmental or organization (hygiene) factors such as job security, salary personal life, status, interpersonal relations, technical supervision or company policies (Dartey-Baah & Amoako, 2011).

Finally, the equity theory interprets motivation as the result of the “fairness of exchange” perception between the employees and the employer (Al-Zawareh & Al-Madi, 2012). That is,



the employees compare their inputs with the organizational outcomes and if they perceive the result is fair, they are motivated for the positive behaviors and if there is inequality or inequity between the two, employees might be motivated to show negative behaviors such as lowering the efforts to reduce the unfairness that is experienced (Al-Zawareh & Al-Madi, 2012). In the same way, they are expected to increase their work effort when they perceive positive and fair input from their organizations.

In the light of the theories of motivation, employees who are motivated are expected to show better performance. The performance-related workplace behaviors which are associated with organizational effectiveness are considered in two separate categories which are task performance and contextual performance (Griffin et. al, 2000). Task performance refers to the “core technical behaviors and activities involved in the job” (Griffin et al., 2000). These behaviors depend on factors such as ability, self-efficacy, goal setting, and task strategies (Locke et al., 1984). Contextual performance, on the other hand, covers the “behaviors that support the environment in which technical core operates” (Griffin et. al, 2000). It assists the organization’s effectiveness by shaping the organizational, social, and psychological context of the organization that enables the actualization of the task performance through voluntary efforts or cooperation (Borman & Motowidlo, 1997). As suggested by Borman and Motowidlo, contextual-performance includes 1) persisting with enthusiasm and extra effort as necessary to compete for own task activities successfully 2) volunteering to carry out task activities beyond the formal part of the job, 3) helping and cooperating with others 4) following organizational rules and procedures 5) endorsing, supporting and defending organizational objectives (Borman & Motowidlo, 1997). From another point of view, similar positive workplace behaviors are explained as Organizational Citizenship behaviors (OCB).

In Morrison’s definition, Organizational Citizenship Behaviors refer to the contributions beyond the job requirements (Morrison, 1994). In the general definition, the effort is reflected by the Organizational Citizenship Behavior which refers to the positive behaviors that do not have a direct correspondence in the official reward system but supports the effective functioning of the organization (Organ, 1988). How the employee will perform these behaviors depends on their perception of what constitutes extra-role behaviors and in-role behaviors. These behaviors include helping behavior, sportsmanship, organizational loyalty, organizational compliance, individual initiative, civic virtue and self-development (Podsakoff, 2000). Helping behavior is defined as voluntarily helping others, sportsmanship corresponds to the openness to endure impediments without dissenting, organizational loyalty consists of standing by the organization in external contexts and maintaining commitment, organizational compliance includes relating

to the rules and policies of the organization, the individual initiative includes that attempts to contribute to the job and the organization and improve them, civic virtue involves commitment and the feeling of being a part of the organization, self-development includes the efforts and interest of the employees in terms of building on their knowledge and skills (Podsakoff, 2000). These efforts contribute to organizational success. In return, employees receive internal or external rewards in exchange for these behaviors.

Within the context of the pandemic period and involuntary working-from-home situation, the question has been to understand how do employees maintain the effort to exhibit these behaviors? How can digitalization be related to the work effort of the employees? The accelerated digitalization, as a technological change, created increased work intensification (Green, 2004). In the circumstances which were prepared by a global emergency, autonomous motivation (Bidee et al., 2013) was more relevant than other types of motivation. The motivation was not related to a competitive or bargaining framework (Green, 2001). The situation was shared by all and the reason for the strain was not related to one single organization. Therefore, the work effort that the employee spent had a voluntary aspect to it.

The increase in the work requirement is defined in two ways; longer hours spent at work and increased effort spent (Green, 2001). During the period of the pandemic, employees had to get used to a new shared reality of working from home. Even though the official working hours stayed the same, with the involvement of personal life-related contexts in the working hours, the working hours got longer unintentionally for many employees. To balance the increased work hour needs with the official requirements and time frame of the work, employees needed to increase their efforts. Moreover, additional work intensification was created due to the non-routine tasks (Avgoustaki, 2016) and requirements of the new context such as increased written communication. These factors are expected to create an emotional burden on the employees and a decrease in their level of motivation. To prevent these negative impacts on the employees and enhance employee work effort, organizations could offer digital HR practices. These practices can help employees perceive sufficient gain in participating in the work and make their job more interesting.

For example, being able to utilize a variety of skills and participating in diverse activities are claimed to increase employee work effort by making employees enjoy their jobs more (Timur, 2018). Therefore, having a satisfactory amount of training and development opportunities that were offered during the pandemic period might have increased the employee work effort. Having the autonomy to decide how to perform their job is claimed to encourage employees to

put more effort into their work (Erim, 2018; Yu & Frenkel, 2013), which is known to be achieved through innovative practices such as e-HRM (Ichniowski et al., 2008). Receiving adequate feedback claimed to enjoy their work more and as a result, they might be more willing to put the effort into their work (Timur, 2018). Previous research (Brockner et al., 1992) shows that job insecurity has a moderating impact on employee turnover. However, when the job insecurity is too high, employees are not motivated to work hard as the consequence seems inevitable. Considering the big amount of layoffs that occurred during the Covid-19 period, moderating the level of this insecurity becomes important to ensure the work effort. Moreover, communication and training-based digital HR activities might help increasing employee resilience by giving them hope and a sense of self-efficacy, which might increase employee work effort in return. In addition, digital HR practices that allow employee-supervisor, leader, mentor communication might increase employee work effort by giving a sense of empowerment (Conger & Kanungo, 1988). Human resources practices that endorse employee involvement and commitment are claimed to increase work effort (Green, 2004). Individuals who can sense “relatedness” are argued to be more open to external demands and needs (Yu & Frenkel, 2013). Perceived online connection with colleagues and the leaders can strengthen the employee’s sense of relatedness, which might motivate them to be more willing to exert effort on contextual demands as well as task demands. Therefore, the relationship between employees’ perception of HR digitalization and work effort will be explored in this study.

### **2.5.2. Organizational Commitment**

As known from the literature, reinforcements, drives/needs and incentives such as promotions, increase in salary, job security are seen as the main determinants in why people work (Campbell & Pritchard; Erim, 2018). However, psychological needs such as recognition and respect, being among amicable colleagues and having good interpersonal relationships also motivate people (Campbell & Pritchard, 1976; Erim, 2018; Donkin, 2010). The need for meeting these psychological needs has been claimed to lead to increased organizational productivity and competitiveness (Brown & Leigh, 1996). On the other hand, the perception of work experiences can impact the turnover intention of the employees (Langkamer & Ervin, 2008). For example, when employees feel that their organizations share their values and interests, they might perceive the organization in a more positive light. This might make them relate to the organization’s goals and put more effort to reach these goals (Brown & Leigh, 1996). This way, employee’s relationship with the organization becomes less likely to end in turnover or turnover intentions (Allen & Meyer, 1996), which is explained by organizational commitment.

Ensuring employee commitment is argued to be the most important part of employee management and strategic human resources goals (Ulrich et al., 2019). Thanks to its direct relationship with employee turnover, organizational commitment is fundamental in keeping the valuable, rare and inimitable human resources within the organization. With this function, its contribution to gaining competitive advantage is crucial (Barney, 1991). Therefore, organizational commitment has been one of the most widely researched organizational behavior (Dey et al., 2015).

In Porter's definition (1974), organizational commitment is the "strength of an individual's identification with and involvement with a particular organization". Porter defines the organizational commitment with a strong belief and acceptance of the goals and values of the organization, willingness to exert a fair amount of effort on behalf of the organization, and a desire to maintain organizational membership. Along with socialization and morale, organizational commitment constitutes one of the three main performance dimensions (Borman Motowidlo, 1997). This way, organizations can reach higher productivity and profitability (Ulrich et al., 2019).

In the literature, organizational commitment is defined as a psychological link between the employees and the organization which lowers the probability of the employee's turnover intentions (Allen & Meyer, 1996). This link is investigated under three categories which are affective commitment, continuance commitment, and normative commitment. Affective commitment is concerned with employee's emotional attachment towards the organization. Continuance commitment signifies that commitment that is caused by the employee's awareness of the consequences of leaving the organization. And, finally. Normative commitment refers to the commitment that stems from a felt obligation to stay within the organization (Allen & Meyer, 1996).

From these three commitment types, affective commitment and normative commitment are found to be positively correlated with performance, organizational citizenship behaviors, extra-role behaviors as well as work attendance (Allen & Meyer, 1996). As mentioned earlier, some employees consider their job responsibilities in a broader scope and affective commitment predicts more engagement with extra-role behaviors which they consider within this scope (Allen & Meyer, 1996). Moreover, affective commitment is positively correlated to the willingness to express suggestions concerning improvements, accept things as they are, and negatively correlated to ignoring dissatisfying situations (Allen & Meyer, 1996). As a part of the organization, employees who are committed to their organizations try to build their

organization's success as well as their own. This means, organizations also benefit from their investments in the employees in return (Huselid, 1995).

The affective commitment of the employee is affected by a lot of organizational factors which include procedural justice, change, perceived organizational support, psychological climate (Langkamer & Ervin, 2008; Sharma & Dhar, 2016; Griffin & Rafferty, 2006). Procedural justice and trust are important requirements in developing affective commitment. As mentioned earlier, transparency and perceived fairness are attributed to e-HRM (Avolio et al., 2014). Also, by improving the relationship between employees, HR and employers, e-HRM innovations are expected to ameliorate employee trust (Bissola & Imperatori, 2013). Therefore, e-HRM has the potential to increase the affective commitment of the employees.

During the pandemic, there has been a lot of changes in the previous ways of working. The role stress increases during such organizational changes (Griffin & Rafferty, 2006). Moreover, employee well-being is also negatively affected (Griffin & Rafferty, 2006). In general, change is perceived as the biggest threat to organizational commitment (Meyer et al., 2009). Due to these sudden and big changes during the pandemic, there was a need for additional support to employees with the help of distant communication means. According to the Perceived Organizational Support theory (POS) (Yu & Frenkel, 2013), felt obligation, group identification, and outcome expectancy are three mechanisms that organizational support can impact employee outcomes. Organizational support can lead to affective commitment through these factors and motivate employees to give back to the organization by showing effort. Certain strategic HRM practices are known to create a "mutually beneficial environment" where organizations invest the employees and employees "reciprocate" that investment by organizational outcomes (McClellan Collins, 2011). These strategic HRM practices can include digital HR services that can benefit employees in terms of effort, socialization, development, and other such aspects. The employee perception of this support might be a factor in maintaining the employees' affective commitment and preventing negative consequences.

The psychological climate is assessed through the degree that the employees perceive the organization as a psychologically safe and meaningful place; not how the environment itself is in objective terms. The perception of a positive climate can be affected by many factors such as leadership support and facilitation, role stress and lack of harmony, job challenge and autonomy, workgroup cooperation & warmth & friendliness (James & James, 1989). A positive psychological climate catalyzes work effort as well as job involvement and performance (Brown & Leigh, 1996). Especially in excessively stressful times such as the Covid-19

pandemic, the psychological climate changed inarguably. As these factors can lead to important well-being-related outcomes such as emotional exhaustion and burnout (King & Sethi, 1997), maintaining a positive psychological climate became a priority. The investigation of the digital HR practices that enable the above-mentioned factors is, therefore, necessary.

### **3. RESEARCH MODEL & HYPOTHESIS**

During the time of the pandemic, digital tools that enabled growth such as online training options, that provided easier communication opportunities with the mentors and colleagues, that allowed better orientation opportunities, that enabled immediate feedback and performance evaluations are thought to increase the employee's motivation and work effort as a result. The positive perception of employees with regards to HR's digitalization is expected to contribute to this process. When employees perceive that they have the means to communicate with their colleagues remotely or when the organization organizes online team building activities, maintaining a positive climate is expected to be easier. The role stress can be reduced within this sharing environment and harmony is expected to happen more easily. Moreover, perceived digitalization might give a sense of autonomy to the employees which can help them face the job-related challenges more smoothly. Having access to immediate feedback from supervisors or support from the mentors, employees can avoid feeling lost or disconnected. In addition, they can avoid role ambiguity, which is known to be positively correlated with stress (Stout & Posner, 1984) and negatively correlated with job satisfaction (Chang & Hancock, 2003). As the emotional difficulties are reduced in the positive climate the resources which are spent on regulating these difficulties can be directed towards more productive results while employee well-being is improved (Jamal, 1999).

Griffin explains that the employees spend their resources both on task performance and contextual performance (Griffin et al., 2000). During the time of Covid-19, a lot of employees started working with digital tools that they had never used before. Some of these employees were not habitually familiar with remote working conditions. In the technology acceptance literature, it is well-known that the technical difficulties experienced or perceived by the employees are known to cause stress (Kim & Park, 2018). These difficulties increase the demands of the immediate tasks. When this is the case, it is not unexpected that the increase in the task demands might lead to a decrease in the resources that an individual can spend on contextual activities (Griffin et al., 2000). For example, an employee who is perceiving difficulty in managing the tasks in an inefficient digital context might not have the motivation to help others or might experience low motivation to stay in the organization. e-HRM practices that focus on increasing resilience are claimed to enhance employee's psychological capital, attitudes as well as behaviors, and organizational performance (Bardoel, 2014). Also, it is claimed that individuals with a higher level of resilience might have more commitment towards their organization (Garg, 2012). As a result of these, they might put more effort into exhibiting

citizenship behaviors. Therefore, this research will test the moderating effect of resilience on affective commitment in the context of HR digitalization.

As suggested by previous research, resilient employees who have more resources to deal with stressful situations (Tusaie, 2004) might find it easier to canalize their efforts more effectively. This way, they might show higher motivation and effort towards their tasks. As the importance of contextual performance increases (Borman & Motowidlo,1997) investing the role of resilience gains weight as well. As digital working is considered a new way of working, it is necessary to investigate resilience in the context of digitalization.

It is argued that people’s interaction with their work environments depends on how they perceive these environments (James & James, 1989). Therefore, understanding employee perceptions regarding HR digitalization is accepted as a good method to understand employee-related consequences of digitalization. In order to contribute to the literature, this research aims to understand and assess if there is a relationship between perceived HR digitalization and positive employee outcomes such as work effort and affective commitment based on employees’ resiliency. The model proposed by this research is illustrated below (See: Figure 2).

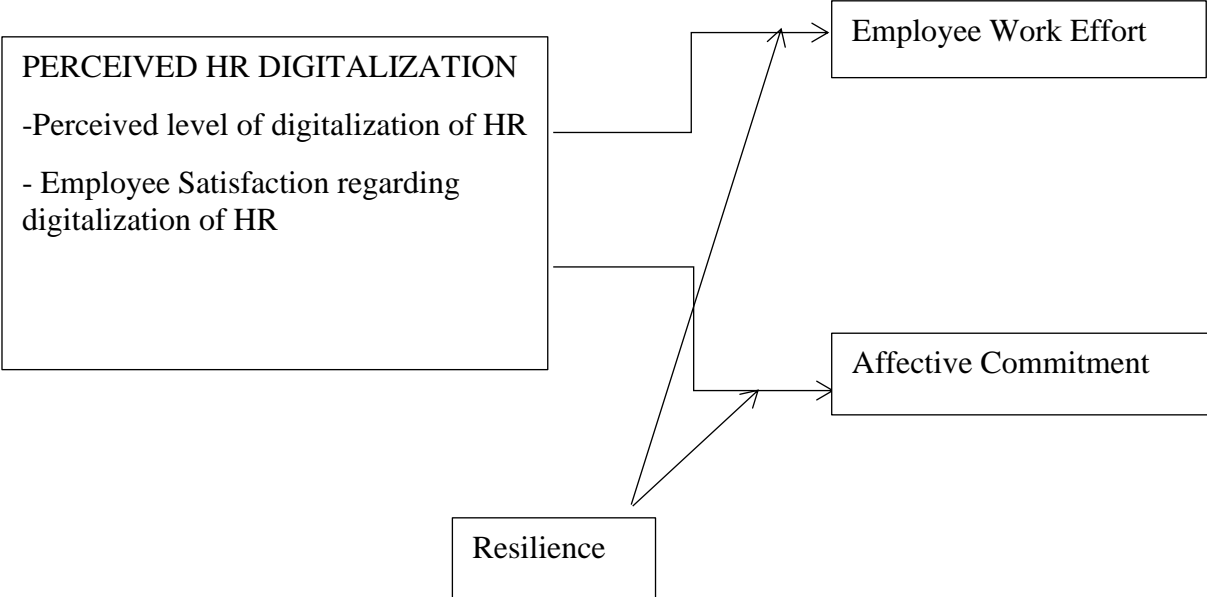


Figure 2: Conceptual Framework



To contribute to the literature, this research proposes the following hypothesis.

H1: There is a positive correlation between perceived digitalization and employee work effort in resilient employees.

H2: There is a positive correlation between perceived digitalization and the affective commitment of resilient employees.

H3: The positive relationship between perceived HR digitalization and work effort is moderated by resilience.

H4: The positive relationship between perceived HR digitalization and affective commitment is moderated by resilience.

## **4. METHOD**

The methods used in research consist of a quantitative survey and a qualitative semi-structured interview.

### **4.1. Qualitative Study**

#### **4.1.1. Research Objective:**

To have a better understanding of the period of the pandemic, establish the research ground better, and structure the quantitative study questions, 6 semi-structured interviews were conducted before the quantitative study. The interview questions were mainly addressed to employee's understanding of HR's digitalization, perception of their organization's HR digitalization, and their experiences during the Covid-19 pandemic period within the last 9 months, from June 2020 to February 2021.

In the semi-structured interviews, sample interview questions included the questions below.

- 1-What do you understand when I say HR digitalization? How would you define it?
- 2-How digitalized is your organization's HR department?
- 3-How do you evaluate the digitalization of your organization's HR department?
- 4-How did you experience HR's digitalization during Covid 19 pandemic period in the last 9 months? Were there any changes in your organization or work? How did it affect you?

#### **4.1.2. Sample:**

The total number of participants in the qualitative study was 6 (female=5, male=1). The interview participants worked in different positions in various sectors from finance to tourism (Finance=1, Education=1 MNC=2, Tourism=1, Industrials=1). All of the participants were white collar employees who were working in private organizations. The participants consisted of 1 manager, 4 specialists and 1 professor. The age of the participants differed from 28 to 43. All of the participants were university graduates, 3 of them had a master's degree, 1 of them had a doctorate degree. The participants' average tenure was 4.83 years.

#### **4.1.3. Data Analysis:**

The data collected in voice recordings were transcribed later on. The names of the participants and their organizations were kept confidential during the transcriptions. Each participant was given a participant number. The main/recurring themes were analyzed.

#### **4.1.4. Results:**

Issues reported in the interviews mainly focused on difficulties with keeping a healthy working schedule, social challenges due to lack of interaction with colleagues in small organizations, challenges due to lack of proper technological implementation and integration in small

organizations. Digital HR practices offered by the organizations mainly focused on administrative functions for small organizations, communication and training functions for the bigger organizations. HR digitalization was associated with positive employee outcomes such as motivation and work effort, resilience, affective commitment.

The main findings of the study are categorized as below.

#### **4.1.4.1. Satisfaction with HR digitalization**

All of the participants had work from home experience. Participants working in small organizations reported lower digitalization and lower satisfaction with digitalization. Participants working in big or multinational organizations reported higher digitalization and higher satisfaction with digitalization.

One employee compared her fully digitalized previous company and her partly digitalized current finance company and said *“Even though (previous company) is massive, things are done in an agile way. You have an idea in a meeting and in 2 weeks it is being tested on the website. Hierarchy and the bureaucracy is slowing things down in (current company). Corona taught that we can not be that slow. Thinking about the world of the future, we can not afford to be that slow. That is why digitalization is essential to their success.”*

3 participants hoped for a partial continuation of remote working practices in the future. For example, one of the participants working as a localization specialist in a fully digitalized organization mentioned *“The company changed perspective regarding digitalization and the tools we need to work from home. Before, we had the same tools and it was actually possible to work from home in my own view. But the company always said they preferred to work from the office. They said it was not the same thing. It was not as efficient and everything but after we were forced to work from home during the pandemic, the company realized that it is actually possible to do the same work from home. The perspective definitely changed and I think it will also stay like that after the pandemic. They will at least move to a flexible way of working.”*

#### **4.1.4.2. Administrative issues**

Participants working in big organizations were already familiar with remote working even though it was not favored as a regular practice in their organizations. The participants who are working in small organizations had more challenges with limited technology and processes which were not well-integrated. For these participants, remote working changed a lot of their daily practices. For example, one of the participants who was an engineer in a small company said *“It would help if everything was digitalized... the papers and everything... then, of course, it would be better but it is not possible. Because I need a wall of screens. It does not make sense.”*

On the other hand, another participant who worked as a marketing specialist in a multinational organization said “ *it is entirely digitalized, we don't do anything on paper.*” She then quoted “*I think it makes things pretty efficient. Also more accessible. Because then you also have access to what your manager has also mostly access, too. You don't need to submit some paperwork or something and also it makes things much easier to arrange. Because let's say when I am taking days off, I just ask my team if they are okay with it. I ask my manager and I enter the request then my manager approves within seconds. That makes life easy to be honest.*”.

As shown by these comments, the lack of integration of pen and paper practices with digital practices makes the digital working experience more difficult for the employees. Moreover, it impacts the perception of “efficiency”, as the employees in more digitalized workplaces perceive that the efficiency increases with the digitalization whereas, in less digitalized workplaces, efficiency is associated with the opposite result.

#### **4.1.4.3. Training opportunities**

2 participants reported additional information sessions and appreciated the online training. For example, one of the participants said “*resources are available online for the members of the corporation.. and all the communication also works online. And training and information that the employees need to learn about are all accessible online*”. Another participant working in a big educational institution reported “*...human resources have so many online resources. Actually, we are responsible for completing training. And we do that online... I think it is everybody's responsibility who is teaching at the university. It is not paper-based but all of these training are online. We get to see some videos, answer some quiz tests... this is how it works*”

#### **4.1.4.4. Orientation**

2 participants were new in the organization and reported difficulties with regards to her integration and adaptation. This was a problem both in a small organization and in a big corporation. It was both related to lack of training opportunities, in-person communication, and difficulty of not being able to ask little questions in the remote working context. One participant reported “*My manager had two kids and when the daycare centers were closed she started to work only half a day. It was almost impossible to arrange a meeting time for my one-on-one training with her, which was apparently not a priority for her. She wanted to meet me in the office to avoid training me online. In the end, I had to learn the tools mostly by myself or from other people.*”

#### **4.1.4.5. Communication practices**

For all participants, communication was the main theme in remote working. Participants working in small organizations reported social challenges such as isolation. They also reported difficulties in arranging tasks due to a lack of in-person communication. For example, an employee working in a lowly digitalized organization reported *“the connection with humans and things I have to manage with people, being in the office and see how people are doing is different than the digital thing. The digital thing, it works when you have fixed timing. If you have a meeting at this time, it works. If you want to ask a simple question it does not.”*

On the other hand, all participants working in bigger organizations reported an increased communication. These participants working in highly digitalized workplaces found digital communication easier and more “efficient”. They reported additional team activities and an increased number of team meetings.

#### **4.1.4.6. Affective Commitment**

The digital technology which enables communication with the supervisors and the team members helped employees deal with the negative consequences of the situation. For example, a marketing specialist working in the finance industry, in a multinational organization with *“fully digitalized”* HR, mentioned company-wide monthly Covid calls with the CEO and three-times-a-week online team meetings with the team. About the digitalization of her company’s HR, she quoted *“I really like it. During the pandemic period, we have monthly covid calls by the CEO of the company. They send us surveys and ask us about our genuine feelings about the pandemic period. The difficulties we face... It makes us feel like they really cared for us. Also, in the team meetings, our manager asks how we are all feeling and we rate our feelings on that day. It feels like great emotional support. We also have team gatherings. We meet online, play games, and drink together. It has been very friendly and made us feel connected with the team.”*. As seen in this example, digital HR practices have the potential to increase communication within the organization and positively impact the affective commitment of its employees.

#### **4.1.4.7. Time management and flexible working**

All of the participants had difficulties in maintaining a structured working schedule. However, some participants appreciated working from home a few days a week even when they disagreed with it as a continuous practice. For example, one of the participants said *“If I stay home, I would cook all the time and I would start eating. It is less physical work. Because I am stuck at home. There is always the same environment. I feel very not happy. Because at least, if I go to office there is a different environment from home. Because when you are working from the same place... or I have to be rich to have different rooms or different working spaces but working*

*from home isn't healthy if you are working there, eating there and sleeping there. It is a bit sad life. I would like to work from home twice a week but not every day.".* Another participant reported, *"In the beginning, I was a bit depressed. I was having breakfast in the morning and starting a bit late. Then I was losing time and then I was feeling guilty. Then I was staying overtime. The weather was getting dark and the next day was starting without me noticing it. I worked more than I would work from the office"*

#### **4.1.4.8. Motivation and Work effort**

The social and technical problems negatively impacted the motivation of the participants in the small organizations. Time management difficulties negatively impacted work effort for participants both in small and big organizations. On the other hand, strategic communication affected employee motivation and work effort positively. The organizations that created situation-based digital HR practices rather than adjusting the existing practices were shown to be more successful in this.

The perceived challenges that are associated with digitalization showed a negative impact on employee work effort. For example, one of the participants working in a small company that digitalized only during the Covid-19 period quoted *"It was not so much effective I would say. It was very hard for me to communicate with my supervisors. Also, my network was not so good. So with the VPN, it gets stuck. The software is slow. Because my computer was not so strong and my wifi is not so strong. It makes me not work fast. It makes you lack of motivation to work I would say."*

#### **4.1.4.9. Resilience**

Perceived digitalization was associated with preparedness and situational awareness. One participant reported *"I think digitalization is very up-to-date, so very useful.. and given the current context that we are dealing with a pandemic.. and we had to survive for over a year through online resources. I think having an institution that already had online human resources made our lives much easier. And they maintained the communication with the employers successfully because they were already prepared for such transmission from face to face to online. It is very appropriate for our times."*

Another participant said *"actually during the pandemic nothing much changed for us. Because so many things were already digitalized. So I can't really think much about how Covid-19 affected the situation with them."*

#### **4.1.5. Discussion**

Working from home situation during the pandemic brought a lot of changes at different scale. Managing any kind of change is known to be stressful (Griffin & Rafferty, 2006). However, employees who had previous working from home experience reported positive experiences regarding the situation. As mentioned earlier, resilience is a “reflex” (Coutu, 2002) that needs to be built in time before the unfortunate events take place. The comments from the participants show that the digital HR practices that were already in-place, helped them survive through these changes with less harm. Therefore, after the pandemic period, digitalization should continue to be carefully implemented and improved, employees should be trained and supported to be able to make use of these technologies in times of difficulties.

As indicated by some participants, the organizations’ approach to HR digitalization had an impact on how the employees related to it. Organizations that were able to have a wholistic approach towards HR digitalization and make it a part of their strategy used digital solutions as a means to communicate and guide their employees. By increased communication and activities, they showed their focus on their employees’ well-being, which was reflected on employees’ happiness, well-being, affective commitment, motivation and work effort. This is an indication of how strategic approach to digitalization can support the employees while creating an advantage for the organization in return. In order to gain benefits in terms of employee outcomes, digitalization should be taken as a strategic HR practice. Otherwise, as mentioned earlier (Bondarouk & Ruel, 2009), organizations can get stuck at the administrative level, which can make working “very hard” as one of the participants reported.

From the responses of the participants, digitalization had certain positive contribution to the lives of the employees during this period. As mentioned by some employees benefited from the situation in small examples such as “spending less time in traffic” or on “dressing up” might make the lives of the employees easier. Even though these examples are small, it shows that digitalization and partial working from home can save times of the employees and reduce the stressors.

Lastly, while interpreting the negative comments about digitalization, the compulsory nature of the pandemic should be taken into consideration. Working from home 7 days a week created a need for a specific working space and adjustment of all the relevant aspects of employees’ lives to the situation. With the social restrictions in general, the worrying atmosphere due to the virus can be also among the reasons for some employees to feel stuck at home or not being able to socialize enough. Moreover, the stress that was related to domestic issues might be increased

because of the long periods of staying inside home. Some of the stressors might be the result of a life change rather than merely a change of platforms.

## **4.2. Quantitative Study**

### **4.2.1 Research Objective**

In the quantitative part of this research, a survey was sent out via the online survey tool Survey Monkey on various social media. The data was collected for 3 weeks between February 2021 and March 2021. The quantitative survey consisted of 2 sections and an additional part which addressed demographic information of the participants. The first section of the survey consisted of questions directed to understand the perception of digitalization including well-being oriented human resources practices (Celma et al., 2018). Employees were asked how digitalized they thought their organizations' HR departments were both in general and in terms of its specific functions. These questions were assessed based on an earlier research published by Zhou et al. in 2020 (Zhou et al., 2020). They were followed by questions addressing how happy the employees were with the digitalization of their organizations' HR departments both in general and with regards to specific HR functions. The satisfaction was rated on 5-item Likert scale (Sullivan et al., 2013) with an additional option of "not digital". Following the perception questions, the employees were asked if they had a flexible working arrangement or not within the last 9 months in order to set a time frame, based on the earlier research by Avgoustaki & Bessa, 2019).

The second part of the survey contained questions regarding the behavioral consequences of HR's perceived digitalization specifically in terms of work effort and affective commitment as well as their resilience status. The questions focused on resilience was assessed based on the 9-item Employee Resilience scale (EmpRes) proposed by Nashwall & Kuntz (Nashwall & Kuntz, 2015). Work effort questions were evaluated based on the 10-item Work Effort Scale (WESC) (Cooman et al., 2019). Lastly, the affective commitment was assessed with the help of Meyer and Allen's 8-item commitment scale focused on affective commitment (Meyer & Allen, 1990). The results of the survey were processed in SPSS. All of the survey questions were translated to Turkish and double-checked for the reverse translation to English.

### **4.2.2. Sample and Procedure**

For the purposes of this study, the non-probability (convenience) sampling was used. The aim was to reach random pool of participants all of whom were actively working at the time of the survey regardless of their sector or seniority. The participants who were not actively working were disqualified from the survey with the help of the active work status question in the



beginning of the survey. All in all, the 248 employees participated in the survey and 232 of them qualified as actively working.

In order to understand the context better, the survey included 9 demographic questions which were about the sector in which the participant's organizations operated, the age of their organization, tenure of the employee in the current organization (categorized for: 5 years and less, 6-10 years, 11-15 years, more than 16 years), the department in which the employee worked, the country in which the participants worked, position of the employee, age of the employee (categorized for: 25 years and under, 26-35 years, 36-45 years, over 46 years), the gender (optional question), educational status (categorized for bachelor's degree, master's degree, doctoral degree and other). The data regarding the position, education, age and gender of the participants was collected for the purposes of supporting the analysis of the results.

#### **4.2.3. Scales**

The scales used in this research are 1) Digitalization Scale, 2) Employee Resilience Scale (EmpRes) scale, 3) Work Effort Scale (WESC) and 4) Affective Commitment Scale taken from the Organizational Commitment Scale.

**4.2.3.1. Digitalization Scale:** The scale used to assess the digitalization was designed based on the earlier study of Zhou et al. (Zhou et al, 2020). As it was in their research, "To what extent is digital HRM systems used in your enterprise?" question was the main question of the research. This question was first asked for HR department in general. After this, the same question was modified for 6 specific HR functions including recruitment, training and development, talent management, performance management, compensation and benefits, administration functions. These were followed up with the functions that are associated with the employee well-being in the literature (Celma et al., 2018). In the next 4 questions, employees were asked to what extent they thought their enterprise was digitalized in terms of the tools and platforms that enable training/personal development, internal communication, flexible working and leadership/mentoring.

**4.2.3.2. Satisfaction with Digitalization Scale:** For the digitalization satisfaction questions, the employees were asked for their level of satisfaction with the digitalization of their organization's HR department. The 11 questions covered HR department in general and with regards to specific functions which are recruitment, training and development, performance management, compensation and benefits, administration functions. These functions were followed by the tools and platforms that enable training/personal development, internal communication, flexible working and leadership/mentoring.

**4.2.3.3. Resilience Scale:** In order to assess the resilience, the Employee Resilience Scale (EmpRes) was used (Nashwall & Kuntz, 2015). Nashwall and Kuntz define resilience within the frame of “resilient behaviors that employees engage in” rather than a personal “trait-like capacity” (Nashwall & Kuntz, 2015). Based on this view, the scale is developed in order to assess the resilience in accordance with employee behaviors with 9 items. The 3<sup>rd</sup> item in the scale “I resolve crisis competently at work” and the 7<sup>th</sup> item “I seek assistance to work when I need specific resources” were reversed.

**4.2.3.4. Work Effort Scale:** The common view in the literature is that work effort is a difficult concept to measure (Green & McIntosh, 2001), therefore, the research into work effort has been very limited due to the lack of measures (Green, 2004). With its broad definitions, work effort can be assessed by objective and subjective measures which are based on either the reports of other people or self-reports of the individuals (See: Figure 4) (Erim, 2018). This research aims to understand the work-effort related consequences based on employees’ self reports.

In order to assess the employee work behavior in terms of effort, Cooman and colleagues developed a 10-item scale known as Work Effort Scale (WESC) (Cooman et al., 2009) (See: Table 2). For the purposes of this study, the 4<sup>th</sup>, item “I do my best to do what is expected of me”, the 7<sup>th</sup> item “I think of myself as a hardworker” and the 10<sup>th</sup> item “I always exert equally hard during the execution of my job” in their scale were reversed and asked in order to prevent any potential biases.

**4.2.3.5. Affective Commitment Scale:** The affective commitment questions in this research were taken from the well-known scale developed by Allen & Meyer in order to assess organizational commitment. The original Organizational Commitment scale consists of three parts which are affective commitment (8-item), continuance commitment (8-item) and normative commitment (8-item) (Meyer & Allen, 1990). For the purposes of this research, the 8-items in the affective commitment were presented to the participants in the original order (See: Table 3).

#### **4.2.4. Data Analysis**

Data were analysed in SPSS 25. To test the normality of the data, skewness and kurtosis were calculated. As skewness and kurtosis results were distributed between -1.96 and +1.96, variables were assumed to be normally distributed and parametric tests were used. Relationships between the variables digitalization, satisfaction with digitalization, resilience, work effort and affective commitment were assessed with Regression analysis. Lastly,

moderation analysis was conducted with affective commitment as the dependent variable, satisfaction with digitalization as the independent variable and resilience as the moderator.

#### **4.2.5. Results**

##### **4.2.5.1. Descriptives**

From 248 participants, 232 of them were actively working, 10 of them were not working and 6 of them did not answer. During the last 9 months, 62.9% of the participants have worked on a flexible schedule, 8.9% of them worked in a part-time job, 15.3% worked with a compressed schedule, 69% of them worked at home. 5% of the participants work in the education sector, 8% of them work in the finance sector. 17.3% of the participants have been working for 6 to 10 years, 46.8% have been working for less than five years, 4.4% have been working for at least 11 years.

1.6% of the participants were younger than 25 years old, 49.1% of them were 26 to 35 years old, 14.1% of them were 36 to 45 years old, 3.6% of them were older than 46 years old. 33% of the participants were men, 35.5% were women and 31.5% percent did not answer the question. 33% of the participants were university graduates, 31% of them were master graduates and 4.4% of them were doctorate graduates. Mean score of digitalization in their work environments was 6.21 (SD = 2.49).

##### **4.2.5.2 Reliability of Measures**

###### **4.2.5.2.1 Digitalization scale**

In the analysis, Cronbach's Alpha was .956 for 11 items. Inter-item reliability was assessed with inter-item correlations and item-total reliability was tested with item-total correlations. All items were found to be highly correlated and no item was deleted. To investigate the structure of the scale exploratory factor analysis was conducted. All 11 items were found to be loaded to one factor that explained 70% of the variance with factor loadings .867 to .803.

###### **4.2.5.2.2. Satisfaction with digitalization scale**

For reliability analysis, Cronbach's Alpha was calculated for 11 items and found as .953. Inter-item reliability was assessed with inter-item correlations and item-total reliability was tested with item-total correlations. All items were found to be highly correlated and all items were included to the analysis. In order to investigate the structure of the scale, exploratory factor analysis was conducted. All 11 items were found to be loaded to one factor that explained 68% of the variance with factor loadings .881 to .791.

#### 4.2.5.2.3. Resilience Scale

In this part, Cronbach's Alpha was .767 for 9 items. Inter-item reliability was assessed with inter-item correlations and item-total reliability was tested with item total correlations. All items were included in the analysis. To investigate the structure of the scale, exploratory factor analysis was conducted. Items were loaded into two factors. Factor 1 was comprised of all 9 items that explained 38% of the total variance with factor loadings .756 to .537. Factor two was composed of 2 items (item 1 and item 7) that explained 13% of the total variance with factor loadings .643 and .541.

#### 4.2.5.2.4. Work effort scale

For the work effort scale Cronbach's Alpha was .756 for 10 items (See: Table 2). Inter-item reliability was assessed with inter-item correlations and item-total reliability was tested with item-total correlations. Item 4, item 7 and item 10 showed low inter-item and item-total correlation scores. After these three items were deleted, Cronbach's Alpha for 7 items was .866. To investigate the structure of the scale, an exploratory factor analysis was conducted for 7 items. All 7 items were found to be loaded to one factor that explained 56% of the total variance with factor loadings .834 to .657.

Table 2: Work Effort Scale Item Statistics

Items	Mean	Std. Deviation	Cronbach's Alpha if Item Deleted
I do not give up quickly when something does not work well.	4.17	0.71	0.73
I really do my best to get my work done, regardless of potential difficulties	4.31	0.63	0.71
When I start an assignment I pursue it to the end.	4.35	0.62	0.73
I do my best to do what is expected of me. (R)	3.89	1.02	0.77

I am trustworthy in the execution of the tasks that are assigned to me.	4.49	0.57	0.73
I really do my best to achieve the objectives of the organization.	4.14	0.70	0.72
I think of myself as a hard worker (R)	4.07	1.06	0.76
I really do my best in my job.	4.40	0.57	0.71
I put a lot of energy into the tasks that I commence.	4.37	0.59	0.72
I always exert equally hard during the execution of my job.	3.16	1.18	0.72

#### 4.2.5.2.5. Affective Commitment scale

In this part, Cronbach's Alpha was .861 for 8 items (Table 3). Inter-item reliability was assessed with inter-item correlations and item-total reliability was tested with item-total correlations. Item 4 showed low inter-item correlations and Cronbach's Alpha if item would be deleted was .873. In order to investigate the structure of the scale, exploratory factor analysis was conducted for 7 items. All 7 items were found to be loaded to one factor that explained 58% of the total variance with factor loadings .907 to .590.

*Table 3: Affective Commitment Scale Item Statistics*

Items	Mean	Std. Deviation	Cronbach's Alpha if Item Deleted
I would be very happy to spend the rest of my career with this organization	2.99	1.12	0.84

I enjoy discussing my organization with people outside it	3.41	1.06	0.85
I really feel as if this organization's problems are my own	3.14	1.11	0.86
I think that I could easily become as attached to another organization as I am to this one (R)	2.43	0.93	0.87
I do not feel like 'part of the family' at my organization (R)	3.15	1.14	0.85
I do not feel 'emotionally attached' to this organization (R)	3.25	1.12	0.83
This organization has a great deal of personal meaning for me	3.17	1.10	0.83
I do not feel a strong sense of belonging to my organization (R)	3.14	1.08	0.82

#### 4.2.5.3. Correlations

Results revealed strong correlation between digitalization and participants' satisfaction with digitalization ( $r = .74, p < .05$ ). There was a weak positive correlation between satisfaction with digitalization and resilience ( $r = .23, p < .05$ ) as well as satisfaction with digitalization and work effort ( $r = .18, p < .05$ ). Resilience had positive strong correlation with work effort ( $r = .63, p < .05$ ), and weak positive correlation with affective commitment ( $r = .34, p < .05$ ). Affective commitment and work effort was moderately correlated with each other ( $r = .43, p < .05$ ). Digitalization was not significantly correlated with resilience, work effort or affective commitment (See: Table 4).

*Table 4: Means, Standard Deviations and Correlations*

Variable	M	SD	1	2	3	4
1. Digitalization	6.21	2.49				
2. Work Effort	4.32	0.47	0.06			
3. Affective Commitment	3.18	0.83	0.12	0.43*		
4. Resilience	3.91	0.47	0.10	0.63*	0.31*	
5. Satisfaction With Digitalization	3.41	1.22	0.74*	.18*	0.13	0.23*

#### **4.2.5.4. Regression**

Two multiple linear regression analyses were conducted. First regression analysis was calculated to predict affective commitment based on satisfaction with digitalization and resilience. A significant regression equation was found ( $F(2, 177) = 9.75, p < .01$ ) with an  $R^2$  of .107. Resilience was found as a significant predictor of affective commitment,  $t = 4.06, p < .01$ . Participants' affective commitment score increased 0.53 points with one-point increase in resilience score. However, satisfaction with digitalization was not found as significant predictors of affective commitment. (See: Table 5)

Second regression analysis was conducted to predict work effort based on satisfaction with digitalization and resilience. Regression equation was found as significant ( $F(2, 175) = 57.48, p < .01$  with an  $R^2$  of .40. Resilience significantly predicted the work effort,  $t = 10.26, p < .01$ . Participants' affective commitment score increased 0.61 points with one-point increase in resilience score. However, satisfaction with digitalization was not found as significant predictors of affective commitment. (Table 6)

*Table 5: Regression Analysis Summary Dependent Variable as Affective Commitment*

	B	95% CI	$\beta$	t	p
(Constant)	0.98	[0.48 1.48]		1.95	0.05
Satisfaction	0.04	[-0.01 0.09]	0.06	0.71	0.43
Resilience	0.53	[0.40 0.66]	0.30	4.06	< .01

*Table 6: Regression Analysis Summary Dependent Variable as Work Effort*

	B	95% CI	$\beta$	t	p
(Constant)	1.86	[1.66 2.12]		8,23	0.00
Satisfaction	0.02	[0.00 0.04]	0.04	0.64	0.52
Resilience	0.61	[0.55 0.67]	0.62	10.26	< .01

#### **4.2.5.5. Moderation**

To test the hypothesis that the resilience of employees moderates the relationship between satisfaction with digitalization and affective commitment, multiple regression analysis was conducted. Satisfaction with digitalization, resilience, and the interaction of these two variables were included in the analysis. Regression equation was found as significant ( $F(3, 171) = 8.01$ ,  $p < .01$  with an  $R^2$  of .12). Satisfaction, resilience, and the interaction of them were revealed as significant predictors (Table 7). The hypothesis was supported. To decompose the interaction, simple intercepts and simple slopes were calculated with Quantpsy tool. Satisfaction with digitalization was a significant predictor of affective commitment among employees who had low resilience ( $B = .15$ ,  $SE = .14$ ,  $t(171) = 2.30$ ,  $p < .05$ ). However, affective commitment could not be predicted by satisfaction with digitalization for employees who have high ( $B = -.04$ ,  $SE = .05$ ,  $t(171) = -0.91$ ,  $p = .37$ ) or moderate ( $B = .05$ ,  $SE = .03$ ,  $t(171) = 1.56$ ,  $p = .12$ ) resilience levels. So, being satisfied with the digitalization of their company predicts greater affective commitment for people who have low resilience but not for people who have high or moderate resilience (Graph 1).

*Table 7: Moderation Analysis Summary Dependent Variable as Affective Commitment*

	B	95% CI	$\beta$	t	p
Constant	-1.72	[-3.13 -0.31]		-1,22	0.23
Satisfaction	0.85	[0.45 1.25]	0.94	2.13	0.04
Resilience	1.21	[0.86 1.57]	1.45	3.38	0.001
Interaction	-0.21	[-0.31 -11]	-0.90	-2.04	0.04



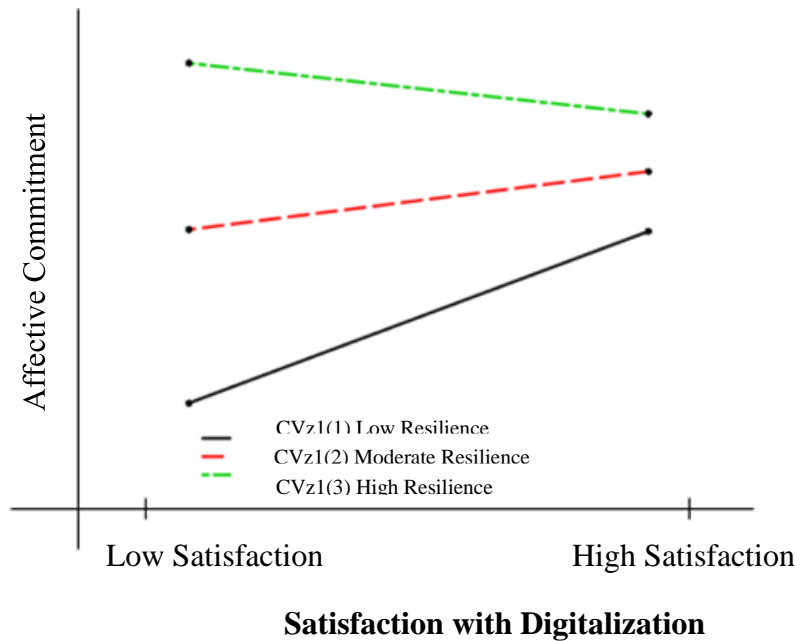


Figure 3: Visualization of the Moderation Effect

To test the hypothesis that the resilience of employees moderates the relationship between work effort and satisfaction with digitalization, multiple regression analysis was conducted. Satisfaction with digitalization, resilience, and the interaction of these two variables were included in the analysis. Regression equation was found as significant ( $F(3, 174) = 39.77, p < .01$ ). Resilience was found as a significant predictor ( $t = 5.33, p < .01$ ). Satisfaction with digitalization and interaction was found to be nonsignificant. The hypothesis was rejected (See: Table 8).

Table 8: Moderation Analysis Summary Dependent Variable as Work Effort

	B	95% CI	$\beta$	t	p
Constant	0.84	[0.20 1.48]		1,31	0.19
Satisfaction	0.33	[0.15 0.51]	0.87	1.80	0.07
Resilience	0.88	[0.72 1.04]	0.89	5.33	0.001
Interaction	-0.08	[-0.13 0.03]	-0.94	-174	0.08

#### **4.2.6. Discussion**

According to the results, there is a strong correlation between digitalization and employee satisfaction with digitalization. As supported also in the qualitative study, employees working in organizations with highly digitalized HR have a more positive perception of HR digitalization. The perceived digitalization showed a positive correlation with resilience, even though this correlation was not strong. There was also a weak correlation between satisfaction with digitalization and work effort. Affective commitment and work effort was moderately correlated as well.

Resilience moderated the impact of satisfaction with HR digitalization on affective commitment. As suggested, satisfaction with HR digitalization in combination with resilience had a positive impact on affective commitment. This relationship was stronger in employees who had a low level of resilience.

As explained earlier, resilience impacts how much the individuals are affected by the environmental factors. Individuals with high resilience are expected to be affected less by the environmental factors. On the other hand, employees with low resilience are expected to be affected more by the environmental factors and changes. This might explain the increasing affective commitment level of lowly resilient employees thanks to their level of satisfaction with HR digitalization.

The moderation effect of resilience on satisfaction with digitalization and work effort was not observed. Resilience was found to be a predictor of work effort. Satisfaction with digitalization also had a weak correlation with work effort. However, the employee satisfaction with digitalization and its interaction with resilience was not found to impact employees' work effort. Hypothesis 4 was rejected. In this part, the compulsory nature of the digitalization practices during Covid-19 might be a factor that affected employee work effort. For example, as mentioned earlier, employees might not have perceived enough difference in terms of the consequences of increasing their work effort. This aspect should be investigated with a further study.

## 5. CONCLUSION

In this research, both the qualitative study and the quantitative study implicated that there is a relationship between perceived digitalization and positive employee outcomes. Also, the employees whose organizations were already digitalized avoided the negative psychological impact of the pandemic period comparatively. This shows a promising future for digitalization and resilience as well as related research.

In a Resilience survey conducted in 2015, the last cause people expected to affect the businesses in the following 3 years was “Risk of disease and epidemics by 10% of total participants (The Economist Intelligence Unit, 2015). However, it emerged as the event which had the biggest impact on all businesses in 2020. The future cannot be foreseen. Therefore, resilience and digitalization need to be investigated deeply, so as to be ready for any future disruption. Protecting employee well-being during such a time is equally important.

This research contributes to the literature by investigating resilience in the context of digitalization and providing evidence. It was also important to do this research during the course of the pandemic in order to provide insights regarding the crisis situation and rapid digitalization while the situation is ongoing.

However, as the study was conducted while the pandemic period is still going on, there were methodological limitations. First of all, due to the working from home situation, it was difficult to access enough participants for long interviews. Therefore, the survey method was chosen. The survey was sent out by using platforms such as social media. The data was collected by convenience sampling method. If the situation allowed, case studies or in-depth interviews would have enabled a broader understanding of the topic.

Another limitation was that the previous research regarding the consequences of the Covid-19 pandemic is very young and not sufficient. Moreover, research on resilience was very limited in the context of digitalization. Therefore, it was difficult to structure the study and draw the direction. In order to refine the methodology, a qualitative study was conducted before the survey was created. As the data accumulates, it is expected to be easier for further research to gather the data together and build on these previous studies.

It is suggested that the further research investigates the relationship between digitalization and work effort from a different angle. In this study, the relationship between perceived digitalization and work effort was not found significant in the survey. However, the qualitative study indicated a kind of relationship between satisfaction from digitalization and positive

employee outcomes such as work effort and motivation. Therefore, further qualitative research can uncover the missing parts and might help improving the direction of the survey used in this research.

In addition, it was shown that fully integrated administrative solutions and higher digitalization had an impact on employee perceptions of digitalization as well as employee outcomes. There were differences between the perception and experience of the employees working in different sectors and organizational scales. In order to investigate the concept of resilience better, the level of actual digitalization can be included as a variable in a case study as well. This way, employee perception and the reality of the digitalization can be compared, which might help identifying the role of resilience better. A comparative study focusing on small and big scale organizations might give insights with regards to tailored digitalization options for organizations at both scales and contribute to the innovation diffusion research. It might be useful to investigate the strategic approaches in small and big companies with regards to the pandemic period. This way, as indicated by this research, resilience can be investigated as a developable capacity in a deeper context and the practices that supported this capacity can be identified.

Lastly, the digital HR practices that contributed to employee satisfaction focused on training opportunities and communication-related strategies. Further research needs to be conducted to specify these practices.

It is inarguable that the pandemic had great consequences on employee well-being and working conditions. Some of the concepts discussed in this research were investigated in different forms in previous research, however, it was important to carry these arguments to the digital context as per the requirements of our time. Investigating these concepts and consequences broadly will determine the direction of digitalization in the future.

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## **APPENDIX:**

### Consent Form

#### **Dear participant,**

This study is conducted by Reyhan Baykara, thesis student in the Organizational Psychology Department at the Istanbul Bilgi University, in order to understand the impact of the recently accelerating digitalization of human resource and flexible working arrangements on employee attitudes with regards to employee resilience.

The data to be obtained through the surveys will not be evaluated individually and the analysis based on the data collected from the participants will be used only for scientific purposes. As for the questions in this study, no negative consequences are expected on the survey participants. The survey takes approximately 10 minutes and participation in the study is absolutely voluntary. The data will be collected anonymously and the participants have the right to decline to participate or withdraw at any point during the study without any consequence.

Please contact [reyhan.baykara@outlook.fr](mailto:reyhan.baykara@outlook.fr) for your questions or feedback.

#### **Reyhan Baykara**

#### **Istanbul Bilgi University Organizational Psychology MA Program with Thesis**

1. I acknowledge that I read and understood the informative text regarding the purposes of this study and I accept to be a part of this survey.

Yes, I agree (    )

No, I do not agree (    )

2. Your current job status:

Currently working (    )

Unemployed (    )

## Appendix A

Please answer the questions below with regards to the HR functions of your current workplace.

<b>On a scale of 1 to 10, what do you think of the level of digitalization of your current company's HR processes?</b>	<b>1-Not digitalized</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10- Completely Digitalized</b>

<b>Please indicate how digitalized your current company's Human Resources (HR) Department is in the following areas on a scale of 1 to 10.</b>		<b>1-Not digitalized</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10-Completely digitalized</b>
<b>My company's HR department's ... is ...</b>											
1	recruitment function										
2	orientation function										
3	talent management function										
4	performance management function										
5	compensation and benefits function										
6	<i>administrative functions (updating HR documents, overseeing employee holidays, maintaining employee data, preparing HR related presentations etc.)</i>										

7	training/personal development tools and platforms										
9	<i>internal communication tools and platforms</i>										
10	flexible working tools and platforms										
11	leadership/mentoring tools and platforms										

<b>Please indicate how much you agree with the statements below.</b>		<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Aagree</b>	<b>Strongly agree</b>	<b>Not digitalized</b>
<b>I am happy with the digitalization of...</b>							
1	the general HR functions of my organization.						
2	recruitment function.						
3	orientation function.						
4	talent management function.						
5	performance management function.						
6	compensation and benefits function.						
7	administrative functions (updating HR documents, overseeing employee holidays, maintaining employee data, preparing HR related presentations etc.)						
8	<i>training/personal development tools and platforms.</i>						
9	<i>internal communication tools and platforms.</i>						
10	flexible working tools and platforms.						
11	leadership/mentoring tools and platforms.						

<b>Please answer the questions below with regards to the period of pandemic in the last 9 months.</b>	<b>Yes</b>	<b>No</b>
<b>During the period of pandemic in the last 9 months, have you worked with...</b>		

1	flexible working arrangement (working without time and place constraints)?		
2	part-time working arrangement?		
3	compressed schedule arrangement (working 3-4 days instead of 5-6 days for the equal amount of work)?		
4	working from home arrangement?		
5	another flexible working arrangement? Please indicate. _____.		

### Appendix B

Please indicate how much you agree with the statements below regarding your attitudes and behaviors towards your workplace.

<b>Please indicate how much you agree with the statements below.</b>		<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
1	I effectively collaborate with others to handle unexpected challenges at work.					
2	I successfully manage a high workload for long periods of time.					
3	I have difficulties in resolving crises at work.					
4	I learn from mistakes at work and improve the way I do my job.					
5	I re-evaluate my performance and continually improve the way I do my work.					
6	I effectively respond to feedback at work, even criticism.					
7	I find it difficult to seek assistance at work when I need specific resources.					
8	I approach managers when I need their support.					
9	I use change at work as an opportunity for growth.					
10	I do not give up quickly when something does not work well.					
11	I really do my best to get my work done, regardless of potential difficulties.					

12	When I start an assignment I pursue it to the end.					
13	It do not care much about what is expected from me.					
14	I am trustworthy in the execution of the tasks that are assigned to me.					
15	I really do my best to achieve the objectives of the organization.					
16	I do not think of myself as a hard worker.					
17	I really do my best in my job.					
18	I put a lot of energy into the tasks that I commence.					
19	There are times when I do not exert hard during the execution of my job.					

		<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
	<b>Please answer the questios below with regards to your attitute towards your organization.</b>					
1	I would be very happy to spend the rest of my career with this organization.					
2	I enjoy discussing my organization with people outside it.					
3	I really feel as if this organization's problems are my own.					
4	I think that I could easily become as attached to another organization as I am to this one.					
5	I do not feel like 'part of the family' at my organization.					
6	I do not feel 'emotionally attached' to this organization.					
7	This organization has a great deal of personal meaning for me.					
8	I do not feel a strong sense of belonging to my organization.					

**2. Which sector is your organization operating in?:**

**5. How many years has your organization been operating in this sector?**

**6. Which department are your working at?**

**7. How long have you been working in your current organization?**

( ) 5 years or below

( ) 6-10 years

( ) 11-15 years

( ) 16 or above

**8. What is your title at work?:**

**9. Age:**

( ) 25 or below

( ) 26-35

( ) 36-45

( ) 46 or above

**10. Gender**

( ) Female

( ) Male

( ) Another

**11. Education:**

( ) Bachelor

( ) Master

( ) Doctorate

( ) Other (please indicate)

## I. ETHICS BOARD APPROVAL

Ethics Board Approval is available in the printed version of this dissertation