MASTER THESIS

The new side of Innovative Work Behaviour during the Covid-19 crisis

In which way can Human Resources Management practices facilitate employees to engage in Innovative Work Behaviours in the virtual work situation and working from home?

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English

I've always considered the ability to quickly adjust to different situations my main strength. This year has tested me more than I could have expected. Having to face a reality that did not reflect my expectations has been a big obstacle and the biggest growth point in my life so far. I bring home a lot of knowledge, a lot more thirst for new adventures, many friendships that have marked my person, promising to myself to manage more and more adrenaline in facing the unknown.
If I look back, I can only be grateful
to my mother who simplifies situations with the same ease with which it complicates them and to my father and my brother, who in their imperturbability, always infuses me serenity and confidence;
to all the professors of UT and UA, who have enriched my cultural background, especially to Dr. Anna and Dr. Maarten for advice and for guiding me during the writing of the thesis, and to Prof. Sammarra for giving me the passion for HR;
to my uncles, who show themselves ever closer than I expect,
to Gianluca for his human and professional advice,
to my super friends Anna, Angelica, and Giulia, who, despite the distance, have always given me enough strength to go-ahead
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to all my friends, who in one way or another have shown me support;
to Federico, who still reminds me that it is worth believing in love (and that I change the meaning of sentences when I translate them)

Italiano

Ho sempre considerato l'abilità nell'abituarmi velocemente a diverse situazioni un mio punto di forza. Quest'anno mi ha messo alla prova più di quanto potessi aspettarmi. Dover fronteggiare una realtà che non rispecchiava le mie aspettative ha rappresentato un grande ostacolo e il mio più grande punto di crescita nella mia vita finora. Porto a casa molta conoscenza, molta più sete nell'intraprendere nuove avventure, molti legami e molte amicizie che hanno segnato la mia persona, promettendomi di gestire sempre meglio l'adrenalina nell'affrontare l'ignoto.
Se mi guardo indietro, non posso che essere grata
a mia madre che semplifica le situazioni con la stessa facilità con cui le complica e a mio padre e mio fratello, che nella loro imperturbabilità, mi infondono sempre serenità e sicurezza;
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a tutti i miei amici, che in un modo o nell'altro mi hanno mostrato supporto;
a Federico, che mi ricorda ancora che credere nell'amore fa bene (e che cambio significati alle frasi quando le traduco dall'italiano all'inglese)

Not everything that counts can be counted,
and not everything that can be counted, counts.

~ Albert Einstein

SUMMARY

ABSTRACT

The relationship between Human Resources Management (HRM) and Innovative Work Behaviour (IWB) has often been a debated topic. Nowadays, the new way of working, i.e. virtual work, has raised several doubts about the IWB of employees. The present study assesses in what way HRM practices stimulate employees' Innovative Work Behaviour during the Covid-19 crisis. The acceptance and adaptation to the situation have caused a different perception of these practices by the employee side. The qualitative analysis among 18 respondents is conducted in two different settings. Nations around the globe had different pandemic policies to protect citizens' health and maintain economic growth. In Europe, Italy has implemented one of the strictest rules and regulations over the last two years, while the Netherlands has implemented a soft approach to deal with the sanitary emergency. The findings suggest that in the Italian online work environment supervisory support and feedback sessions represent the HR practices that can highly stimulate IWB, while in the Netherlands information sharing has this role. Contextual factors need to be taken into account: work culture in the country, work culture in the company, job position, type of work, and family status are the dependencies that represent the conditions for which those HR practices are appropriate.

1. INTRODUCTION

In a constantly changing world, where a business should be run both on a day-by-day basis and with a long-term vision, the prosperity of a firm is linked to its competitive advantage. Depending on external challenges and internal availability of sources, employees' innovation is the key weapon that a firm has to exploit in order to differentiate it from its competitors (Barney, 1991; Urbancova, 2013).

Although success is hardly explained by a single-factor, the process of innovation has been seen as a key part of it. Therefore, in this research, the focus is on innovation at the level of individuals. Firms' innovation and improvement are strongly linked to individuals' actions, not only according to academic literature but even in conformity with total quality management and corporate entrepreneurship works (de Jong and den Hartog, 2010). One of the most famous and self-explanatory statement in this regard is the following: "one option for organisations to become more innovative is to encourage their employees to be innovative" (Agarwal, 2014, p. 43).

Although scholars have defined "innovation" differently, they all agree in conceptualizing it as a process, and therefore it is made up of stages. The three main different steps are considered to be idea generation, idea championing and implementation (De Jong 2007; Urbancova, 2013; Bos-Nehles, Bondarouk and Nijenhuis, 2017; Scott & Bruce, 1994). In this perspective, the concept of Innovative Work Behaviour (IWB) can be described as a combination of discontinuous and related behaviours, where each employee is simultaneously participating in more than one task, and thus positioned on the individual level (Bos-Nehles, Renkema & Janssen, 2017). Moreover, IWB is considered to be a multidimensional process (Bos-Nehles & Veenendaal, 2019; De Jong 2007; Ramamoorthy et al., 2005), meaning that rather than distinguishing the different dimensions of IWB, and therefore different individual's behaviours in engaging in the innovation process, it has to be considered arising not only by

the sum of its phases but even by the intercorrelations between them (Scott and Bruce, 1994; Janssen, 2000; de Jong & den Hartog, 2010), in a sort of holistic view.

In this scenario, Human Resource Management (HRM) can be considered a tool for addressing the internal availability of sources in order to enable employees' behaviour on an innovative path. Defining HRM as the management of employees and their work to a desirable outcome, it can be seen as an antecedent of innovation (Seeck & Diehl, 2017). Drawing on Veenendaal, & Bondarouk (2015), Bos-Nehles, Renkema & Janssen (2017), and Bos-Nehles & Veenendaal, (2019), this study enriches the growing body of empirical evidence of the relationship between HRM and firms' innovation. HR practices represent signals that the firm sends to the employees. If the organization's signals are perceived as valuable, employees will be willing to reciprocate it with a valuable behaviour (Veenendaal, & Bondarouk, 2015). The abovementioned reasoning is supported by the Social Exchange Theory (Blau, 1964). Taking into account the discretionary nature of the IWB, some set of HR practices can enable IWB. Moreover, HR practices that foster employee commitment, loyalty, learning, and intrinsic motivation enable innovation (Seeck & Diehl, 2017). This argument is supported not only by many social cognitive research but even by communication studies. People choose to act based on their perceptions and interpretations. When a set of HR practices is applied to a group of employees, some of them can perceive it positively, while others negatively, depending on individual values, personality, goals, and expectations (Guzzo and Noonan, 1994). Therefore, based on the employees' perception, the outcome can change. In other words, because the company invested in employees' commitment offering practices and other ways to become committed, they reciprocate with something of value for the organization, that can be IWB. In fact, these HR practices develop a mutual liability in which the employer is committed to the employee, and vice versa, with the result of an enhanced commitment from both sides (McClean & Collins, 2011).

The current spread of the Covid-19 pandemic can be seen as a stochastic/exogenous event that has threatened the internal availability of sources, undermining not only firms' economic patterns but altering even employees' working conditions (Carnevale & Hatak, 2020). Today executives and senior managers as well as employees are experiencing global uncertainty working from home, challenged by job insecurity and worrying about their and their loved ones' health and safety over the already known economic downturns and political instability (Caligiuri et al., 2020). The shift of the work environment from a central place of business or physical organizational location to an alternative work arrangement, linked with the exploitation of electronic media to interact with others, constitute the substantial difference faced by workers during the pandemic crisis. Telecommuting is not more a practice to meet household needs and family demands or to save commuting costs, but it is the most common working form to which employees are obliged (Gajendran & Harrison, 2007).

Little is known about what happens when strong external events divert the organization from the innovation path. Although a stream of literature investigates contextual factors, such as organizational climate and leadership, which facilitate individual employee innovative behaviour (Amabile et al., 1996; Hunter et al., 2007; Bos-Nehles & Veenendaal, 2019), the fact that no studies were conducted on how the innovation path of an organization can transform because of an exogenous factor represents a gap in the literature. Shocking events, external and

above the organizational level, can influence the strength HRM practices have on IWB in an unknown way.

Therefore, recognising the importance of the HR practices for firm's innovation is not enough. It should be stressed that previous studies have been developed in a context in which an online work environment was just a choice of the company. The shift from an industrial society to a digital information society is the consequences of the blurred line between the virtual and the physical world (DeNardis, 2020). In the case of an online working setting, the HR practices could play a role in terms of increasing employees' flexibility and productivity, job-satisfaction, organizational commitment and performance (Allen, Golden & Shockley, 2015). Despite that, it can be argued that the relevance of the same HR practices can differ in effectiveness on IWB depending on the employees' willingness to work in an online environment.

Based on the considerations above, we would expect that the innovation process needs adjustments because of the new components involved, as the feeling of disempowerment, vulnerability and solitude, and mostly considering the context-related issue as a whole. In this sense, the global pandemic underlines the importance of understanding the role of HR practices in improving enterprise resilience (Caligiuri et al.,2020). Therefore, precisely those high-commitment HR practices, which as previous literature showed were appropriate for managing employees in order to induce them to a discretionary behaviour (Boselie et al., 2001; McClean & Collins, 2011), can have a different degree of effectiveness in the current situation. What has been recommended to do for boosting IWB could no longer be valid or be partially valid.

To investigate this topic, we especially consider two contexts in which national governments have reacted differently to the crisis of the COVID-19 pandemic and have thus had different influences on the work situation of employees. In fact, in this study, Italy and the Netherlands have been selected as sample countries because they represent two different European countries that, although many similarities in the legal system, developed a different setting in which their citizen and employees has lived and worked. More instability and uncertainty have characterized Italy, one of the first country in applying regulations for Covid-19. This country has even experienced one of the longest periods of lockdowns, especially if compared to the Netherlands, which on the opposite side applied an "intelligent lockdown". At the very foundation of the reason why comparing these two countries is the different governmental strategy: Italy decided to block the country for more than one year, the Netherlands chose the population immunity. Not surprisingly, the sanitary and economic interests come up in a self-explanatory way. The different instability linked to the governmental measures can differently influence the application of the HR practices in the two countries.

The goal of this paper is to develop a more precise understanding of the way HR practices stimulate employees to engage in innovative behaviour and which HR practices facilitate employees' IWB in the online work environment. Thus, we focus on the following question: *in which way can HRM practices facilitate Italian and Dutch employees to engage in innovative work behaviours in the virtual work and working from home situation?*

Crises are often seen as an opportunity to reassess many of our practices. In our study this is the case too. First of all, considering that virtual work and working from home situations will not be peculiar just from this historical period, rather from now on it will be considered in different work environments, the insights of this paper can contribute to a better knowledge of

the appropriate and efficient HR practices to be applied. In fact, virtual work and working from home are and may remain the new norm (Caligiuri et al.,2020) and thus we need to understand in what way employees can be innovative in this situation. The "new normality" will include these current working scenarios as a prerequisite of the job conditions. Under another point of view, it will be useful to assess the effective and the potential contribution of HR practices in a virtual work setting in boosting creativity and innovation. As a second theoretical contribution consist in enriching the innovation literature during Covid-19: this exogenous event forced employees to work from home. Therefore, the conditions under which the employees worked to engage in IWB were different, not totally depending upon him/herself, as the majority of research on IWB did. In fact, the forced component of working from home represents a strong limit, considering the extra-role behaviour analysed. Moreover, this research takes into account the strength of an external and stochastic event, such as the Covid-19 pandemic, on the employees' working conditions and consequently on the fulfilment of the innovation process. Concluding, those elements altered the perception of HR practices, studied in this different context. Under the practical lens, studies focusing on particular aspects of employee innovative behaviour are typically conducted in one country, often in one particular organization, considering a convenience sample of a particular type of employees. This paper will test its validity in two different European countries: the Netherlands and Italy. The international component of this research can provide a higher reliability of the result. In fact, taking into account the different legislation and Corona measures in place during the last period, differences in result are expected. Actually, the findings of this work helped HR managers and researchers to properly address the broader challenge on how to facilitate global virtual work. From the perspective of a call for a reconfiguration of a HR function in the ongoing pandemic, it has been considered as valuable to gather relevant evidence to facilitate global work in the future, by examining the role of the HR function during the crisis.

After a deeper explanation of the concepts mentioned above, possible challenges for HR practices arise. In order to evaluate the validity and consistency of previously applied HR practices, the study is conducted. Specifically, we use a qualitative analysis in order to understand which practices the HRM department could implement to stimulate IWB. We use our findings to propose a research agenda for more pragmatic investigations of a new side of IWB.

2. THEORETICAL FRAMEWORK

2.1 INNOVATIVE WORK BEHAVIOUR (IWB)

IWB has been defined as "employee behaviour to create, introduce, and apply new ideas intentionally within a work role, a group, or an organization that are beneficial to performance" (Janssen, 2000, p. 288) and as "an explanatory construct for employees' contributions to innovation development" (Messmann and Mulder, 2012, p. 44).

IWB is generally conceptualized in the literature as a process made up of at least two phases. Many scholars try to quantitatively assess the multiple facets of IWB (Janssen, 2000; de Jong and den Hartog, 2010; Messmann and Mulder, 2012; Lukes and Stephan; 2017). The debate regarding the multidimensionality of IWB is still on nowadays.

According to Messmann and Mulder (2012), in order to accomplish innovation development, the innovation process can be divided into four tasks: *opportunity exploration, idea generation, idea promotion, idea realization.* These tasks are partly built on each other, as well as but connected by feedback loops back and forth between all of them. Innovation development is not a linear process and individuals may be involved in the accomplishment of one or more of these tasks simultaneously and repeatedly.

In line with Scott and Bruce (1994), Messmann and Mulder (2012) found that innovation development is a complex, iterative, and non-linear model. Another interesting insight from their work is that IWB is dynamic and context-bound. In fact, innovations are based on human activities and developed in a particular work context. Therefore, the complex relations between employees' past work activities and outcomes and their present and future activities in present and future which affect the process of innovation development qualify it as dynamic. In this sense, even the employees' professional development enriches the notion of dynamism of IWB. On the other hand, the attribution of context-bound is related to the fact that innovations are influenced by contextual factors and become relevant only with reference to the work context in which they are executed. What is peculiar of the study of Messmann and Mulder (2012) is that they identify the role of *reflection* in the process of innovation development as a fifth necessary innovation task. Reflection seems to be important in referring to all the four previously cited tasks. Through reflection, the dynamism and context-bound features of IWB can take place: past, present and future activities can lead to innovative outcomes.

Lukes and Stephan (2017) highlight the social aspect of innovation, that becomes evident when moving from idea generation to idea implementation. Indeed, in order to implement an idea that has been generated, colleagues, managers and all the others embedded in the work environment need to recognize the value of it.

Concluding the discussion on the conceptualizations and operationalizations of IWB, the five tasks that compose the complex, iterative, and non-linear model of innovation reflect the previous and the ongoing studies on the multidimensionality of IWB. The position of Messmann and Mulder (2012) on IWB fits significantly with the purpose of this research. The mentioned aspects of IWB need to be included in order to evaluate the HR practices' changes on it.

What is even worth to specify is the role creativity has in this conceptualization. Creativity is not a synonym of innovation. It has been considered the basis of innovation in organizations (Amabile et al., 1996) and, although it is a crucial element of the initial stage of the IWB, it does not completely explain it. Actually, IWB is a broader concept that includes creativity in it (Scott and Bruce, 1994; de Jong and den Hartog, 2010; Lukes and Stephan, 2017). The difference between creativity and IWB lies in the intended output (de Jong and den Hartog, 2010) but without creativity innovation cannot start (Amabile et al., 1996). Therefore, it is considered as part of idea generation phase.

Moreover, what is worth considering after this discussion is the role of reflection on idea generation, idea championing and idea implementation: without the act of reflection after each stage of the innovation process, the process itself wouldn't be achievable (Messmann and Mulder, 2012).

Finally, based on the premise that IWB is seen as an extra-role or discretionary behaviour that goes beyond required role expectations (Janssen, 2000), HR managers and higher line managers should be able to stimulate it through effective HR practices.

2.2 HRM PRACTICES AND IWB

According to Veenendaal, and Bondarouk (2015) and the multi-dimensional view of IWB, commonly employees can engage in behaviour that echoes the opportunity exploration, idea generation, idea championing or idea implementation singularly rather than demonstrating an overall inclination for IWB. Therefore, the role of HR managers and top management is crucial for the engagement of employee in IWB, with consequences on firm performance (Boselie et al., 2001; McClean & Collins, 2011; Veenendaal, & Bondarouk, 2015; Bos-Nehles & Veenendaal, 2019). In fact, the choice of an HRM system can both motivate or demotivate employees, thus discriminating for extra-role behaviours (McClean & Collins, 2011).

Therefore, the social exchange theory (Blau, 1964) and the perception of HR practices take a role in the relationship between the perceived HR practices and IWB. In fact, if individuals, through their perceptions of HRM practices, conclude that innovative ideas are supported and rewarded, even by the work environment, they will respond with IWB (Bos-Nehles & Veenendaal, 2019). McClean and Collins (2011, p. 342) stated that "high commitment HR practices create a mutually beneficial environment whereby firms invest in their employees and induce them to reciprocate that investment by exerting higher levels of discretionary behaviours".

Furthermore, employees interpret HRM practices differently because of different perceptions (Veenendaal, & Bondarouk, 2015; Bos-Nehles & Veenendaal, 2019). The interpretation of HR practices should be seen as a signal that the organization communicates to its employees: HR practices should be examined from the point of view of the employee. Only through this interpretation IWB's effect can be studied (Bos-Nehles & Veenendaal, 2019).

Therefore, in this study, five high-commitment HR practices (HCWPs) have been identified to have an influence on IWB: supervisory support, training and development, information sharing, autonomy and compensation and rewards (McClean & Collins, 2011; Veenendaal, & Bondarouk, 2015; Bos-Nehles & Veenendaal, 2019). Worth to mention is the

HRM practices taken into account. First of all, the higher possible level of IWB is assumed to be reached through the HCWPs, because of reciprocity and interdependency between the individual and the organization (Bos-Nehles, Renkema & Janssen, 2017). Further, the HCWPs proposed in this study follow the Veenendaal and Bondarouk (2015) and Bos-Nehles & Veenendaal (2019) selection. Autonomy is the fifth HCWP added to the list, as one of HR practices that describe higher correlation with commitment in nearly all the studies (McClean & Collins, 2011; Bos-Nehles, et al., 2017).

Those practices establish employees' psychological engagement to the organization and stimulate employees to take risks. Indeed, reciprocity and interdependency are at the base of these high-commitment HR practices.

Supervisory Support consists of the direct leader/manager support for employee innovation. It is the perception of the leadership behaviour expressed by showing interest in employees' feelings and needs and providing feedback (Veenendaal, & Bondarouk, 2015; Bos-Nehles & Veenendaal, 2019). Concretely, this behaviour provides employees with challenging tasks, time and money to implement ideas, can consist in demonstrating appreciation for innovative performance, and encourage open and transparent communication (Veenendaal, & Bondarouk, 2015; Bos-Nehles & Veenendaal, 2019). When it is referred to the organizational level, the perception of the top management support is included in order to make firm' resources available. In this case, it is possible to refer to it as perceived organizational support (Hunter et al., 2007). Thus, broadly speaking, the perceived work environment is influential for employees' IWB (Amabile et al., 2004; Hunter et al., 2007; Lukes & Stephan; 2017). It is the most beneficial practice to boost IWB (Veenendaal, & Bondarouk, 2015; Bos-Nehles & Veenendaal, 2019) and it is recognized as influential in many relevant studies (Amabile et al., 2004; Hunter et al., 2007).

Training and development, seen as both the perception of employees' chance to develop in their own job and career and the firms' availability of resources for the exploitation of their value. In accordance with McClean & Collins (2011) providing career opportunities or development is an indicator of the interest of the employer in investing in the development of their employees. The Social Exchange Theory suggests that the employee's effort increases because of the attachment and identification in the company (McClean & Collins, 2011). In the Veenendaal, & Bondarouk (2015) research it has been discovered to have a negative effect on idea generation. Employees should experience the urge to generate ideas when they perceive a lack of resources. Uncomfortable situations can boost IWB when combined with a minimum level of training opportunities (Veenendaal, & Bondarouk, 2015). It has been categorized as an ability-enhancing HRM practises in Bos-Nehles, Renkema & Janssen (2017) AMO framework clustering, with an overall positive effect in boosting IWB, although the relationship is moderated by the organisational context.

Information sharing is described in terms of employees' perceptions of the extent to which they are informed about the organization's goals, norms and values, so that they know what to expect and what is required by them. Thanks to sharing information, employees perceive self-worth and relevance to the company, which leads to reciprocation. This practice has been found to stimulate both idea generation and idea application, but does not boost the idea championing (Veenendaal, & Bondarouk, 2015).

Compensation and rewards, in terms of perceived fairly compensation and distributive justice, is found to be inversely related to a creative behaviour (Veenendaal & Bondarouk, 2015), while according to McClean & Collins (2011) above-market compensation and benefits motivate employees to devote more effort to their job, thus encouraging the exchange process. As a motivation-enhancing HRM practices (Bos-Nehles, Renkema & Janssen, 2017), we can state that the relationship between compensation and rewards and IWB is ambiguous.

Autonomy can be defined as the degree of perceived independence and freedom of employees in performing their tasks and duties (Janssen, 2005; Ramamoorthy et al., 2005), resembling the "self-determination" and intrinsic motivation concepts (Bos-Nehles, Renkema & Janssen, 2017). As an opportunity-enhancing HRM practices, it is highly relevant in affecting employees' IWB, particularly for idea generation and idea realisation (Bos-Nehles, Renkema & Janssen, 2017).

All the studies mentioned in this paragraph were developed in a context of physical working condition, although some of them mention the economic downturn as the environmental situation in which the analysis was conducted (Veenendaal, & Bondarouk, 2015). Anyway, the work environment resulted in dynamic under the profile of individual working conditions.

Framing all the studies of HCWPs it is possible to state that they are likely to lead to higher employee effort. According to McClean & Collins (2011), it is not obvious if these HRM practices should represent a profitable investment for all employee groups. In this picture, exogenous events can represent just another reason to differentiate the way HCWPs are assessed by managers and companies.

2.3 THE VIRTUAL WORK IN THE PANDEMIC UNIQUENESS

The famous sentence of Ken Olson (1977) stated that "there is no reason anyone would want a computer in their home" but according to Statista, almost half of worldwide private households were estimated to have a computer at home in 2019. Nowadays the boundaries between the online and the offline spaces are always more blurred. The entanglement between the two spheres made the general notion of life, and thus work, as already hybridized (DeNardis, 2020).

The phenomenon of virtual work has often been differently defined in the literature. Telework, remote work, distributed work, flexible work, e-work has been considered as synonym of this concept. In order to have a comprehensive and exhaustive view of the phenomenon, this study will follow the definition of Allen et al. (2015). According to her studies, virtual work can be conceptualized as physically or temporally dispersed work arrangements characterized by technology enhanced communication and a dearth of face-to-face interaction (Allen et al., 2015). Therefore, three different dimensions can identify the distinction between physical and online work environment: (1) the location of workers, (2) where and how work is accomplished, and (3) the basis for relationships between workers and organizations (Watson-Manheim, 2002). The new possibilities for a different working configuration have been considered as a benefit in organizational structure and design (Watson-Manheim et al. 2002).

To further develop the analysis, it is necessary to mention some benefits and drawbacks of this phenomenon. In fact, the idea of virtual work has pervaded organizations as an

alternative to long, traffic-bound commutes, and rigid workdays (Raghuram et al., 2001). On one side, this flexibility has been consistent for the improvement of work-life balance, higher levels of job satisfaction, and lower turnover intentions (Grant et al., 2013; Wheatly, 2012; Twentyman, 2010). On the other, the possibility for organizations to downsize and cut the costs, the reduction in face-to-face interactions, the lower frequency and richness of communication, the increase in stress and burnout represents the negative side of the coin (Raghuram et al., 2001; Gajendran & Harrison, 2007; Grant et al., 2013).

The outcoming paradox of balancing work and non-work demands (Gajendran & Harrison, 2007) can be related to different aspects of an employee's professional and personal life. Benefits and drawbacks represent a peculiarity of virtual work. As an example, just considering the professional side, distance between co-workers can lead to increase of trust (Raghuram et al., 2001) or, oppositely, to an increase in misunderstandings in communication (Kniffin et al. 2021). On the same trend, loneliness can have a positive effect on creativity (Peng et al., 2017) but a negative effect on employees' affective commitment and performance (Kniffin et al. 2021).

Therefore, the Covid-19 situation can be considered as an accelerator of the described phenomenon of virtual work, especially in countries and organization where it was not that deeply rooted, and keep an augmented eye on the work and non-work demands' paradox. The key difference from a work from home condition is the mandatory aspect due to the global health crisis (Kniffin et al. 2021). Governments have imposed lockdowns, quarantines, stay-at-home policies, and social distancing on their citizens. Because the transition to virtual work has been involuntary, continues over a lengthy period, and requires entire households to be house-bound (Caligiuri et al., 2020), the downsides could be higher than the benefits.

Before Covid-19, the only exogenous influences studied considered in research as factors that prohibit and manoeuvre the HRM practices and policies of organizations were collective bargaining agreements at the industry/sector level, and at the national level labour laws, legislation, the role of works councils and trade unions (Boselie et al., 2001). In the field of the HRM, the Covid-19 crisis represent a "people based-crisis". From now on, HRM will open a window on new or developed practices in stemming adverse effects resulting from stochastic events. One of the most significant challenge that arise from this situation is how to effectively manage the vulnerability that virtual work creates (Raghuram et al., 2001; Kniffin et al. 2021), but the list is definitely long.

2.4 THE CONCEPTUAL MODEL

Figure 1 depicts the conceptual model underlying this research. Although the relationship between IWB and HRM practices is clear in the literature review, where all the positive/negative effect has been investigated in literature, this research will examine if these high-commitment HRM practices are still relevant in the pandemic circumstances. In fact, the context of the country and how the country have dealt with the crises could have unknown effect on the effectiveness of the practices. The model is valid both for Italy and the Netherlands, as the study was conducted in both countries.

As a conclusive statement, interpretation is linked to the context. So HRM is facing a two-sided challenge: the fast implementation of an uncommon and forced way of working and the fitting of the practices in space and time at employees, organization and country level.

Perception of
HRM practices

Perceived Supervisory Support

Perceived Training and
Development

Perceived Information sharing

Perceived Compensation and
Rewards

Perceived Autonomy

IWB

PANDEMIC CONTEXT:
COVID-19 CONTEXT AND VIRTUAL WORK
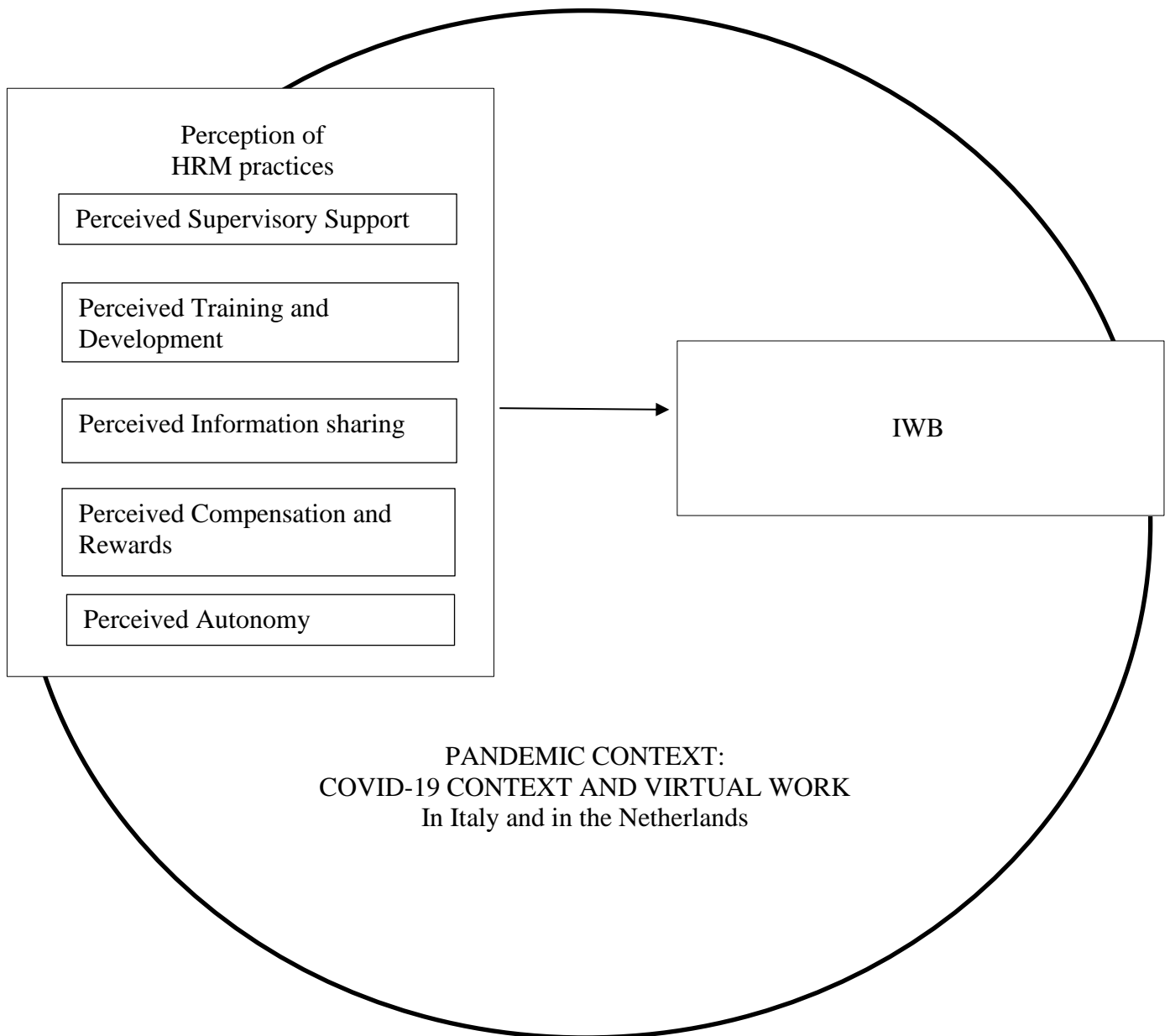In Italy and in the Netherlands

Figure 1. The conceptual Framework

3. METHODOLOGY

To determine which of the perceived HR practices can ease employees to stimulate IWB within a virtual work environment, an exploratory case study was conducted. In fact, this research adopted the qualitative research method that can help us to understand and identify employees' perceptions of innovation, stimulation of IWB and high-commitment HRM practices in a virtual work context (Silverman, 2020). Following, the research design, data collection and analysis will be discussed. Finally, the reliability and validity of this research will be addressed.

3.1 SAMPLE

In order to meet practical criteria, such as easy accessibility and willingness to participate, a convenience sample was selected (Robinson, 2014; Etikan et al., 2016). The targeted sample in this research are employees who have transitioned from working in a traditional and physical work environment to virtual work and mainly work from home.

To answer the research question of this thesis, qualitative research is performed at two different national levels. In fact, in order to show that the difference in HRM practices in affecting IWB can be influenced by a particular context, a distinction between Italian and Dutch work settings is considered. Indeed, the two European countries impose different Corona measures on citizens and organizations in the period between March 2019 and May 2021. A deeper explanation of how historical events passed is presented in the first subparagraph of the Results, about norms and regulation during Covid-19 crisis.

Given the importance of employee behaviours in service firms, this paper will study the black box between using HR practices and engage in IWB in professional service firms. In fact, service firms represented the type of company in line with the research design of this study. Professionals represented the workforce forced to work from home much more than others, as manufacturing for example. Their tasks and responsibilities were easy to move to the online environment. Moreover, their role was pivotal in determining innovation, not only from a theoretical and planned point of view, but even on the practical and process-related side.

Thus, we focused on the semi-professional (trainees) and professional (junior and senior employees, and top management) employee groups. Difference in the two groups is worth to be mentioned. The categories of trainees started the internship period in remote working conditions, while the other category worked habitually in a physical work environment before Covid-19 crisis and have been forced to move to a virtual working condition.

The third criterion that guarantees the fit between the research question and the analysis is that all the participants selected were in an active working situation at the beginning of the crisis. Their experience in forcibly working from home is a common factor.

Moreover, all the participants worked in large organizations (> 500 employees). Most of them worked in the private sector.

The outcome from splitting the target population not on nationality, but on the national location of their company, and thus on different national circumstances, was expected to be able to highlight the effectiveness of the HRM practices on IWB. For this reason, the number of Italian respondents was similar to the Dutch one: 9 Italian and 9 Dutch respondents. Characteristics of the respondents are summarized in the following table (Table 1).

Respondents	Nationality	Seniority	Industry of the company
I1	Italian	Trainee	Beauty
I2	Italian	Junior Manager	ICT
I3	Italian	Senior manager, top management	Pharmaceutics
I4	Italian	Junior Manager	Research
I5	Italian	Trainee	Professional services
I6	Italian	Senior Manager	Research
I7	Italian	Junior Manager	Energy provider
I8	Italian	Senior Manager	ICT
I9	Italian	Junior Manager	Professional services
D1	Dutch	Junior employee	Research
D2	Dutch	Senior employees, top management	Professional services
D3	Dutch	Senior Manager	ICT
D4	Dutch	Senior Manager	ICT
D5	Dutch	Trainee	ICT
D6	Dutch	Senior Manager	Research
D7	Dutch	Junior employee	ICT
D8	Dutch	Trainee	Alcoholic beverage
D9	Dutch	Trainee	ICT

Table 1. Characteristics of the respondents

3.2 DATA COLLECTION

The exploratory case study included in-depth interviews. The in-depth semi-structured interviews consisted of a set of predetermined questions (see Appendix I). However, the questions that are asked differed depending on the function of the participants. The reason for this is that HR-practices can be perceived differently by the employees, instead of how it was intended by the manager/supervisor. Additionally, differences may arise in the conceptualization of IWB among employees and managers. In this way, a broader perspective

of how HRM practices were used and perceived within the organizations and how people view and experience the crisis can be explored. The interviews (which lasted between one hour and one hour and a half) were audio-recorded, with the knowledge and consent of the participants. Respondents were adequately informed of the content and of the aim of the research, both by email and at the time of the interview.

Interview design/ procedure

The type of questions that participants were asked to address concern their working conditions during the last 24 months, their living condition, opinions on how the company they work for dealt with Covid-19 regulations, on how the HR department of the company they work for dealt with Covid-19 regulations, and suggestions on how to stimulate innovation in working from home situation. Moreover, probing techniques such as asking for clarifications, explanations and examples were used to create an open atmosphere and to maintain flexibility.

3.3 DATA ANALYSIS

Burnard (1991) describes one of the methods to code qualitative data: the thematic content analysis. The aim of this method is 'to produce a detailed and systematic recording of the themes and issues addressed in the interview and to link the themes and interviews together under a reasonably exhaustive category system' (p. 462). Coding in qualitative analysis enables researchers to be reflective and reflexive. The three-step coding process is a progressive schema and that leads the researcher from codes and categories to the theory. It consists in open, axial, and selective coding (Williams & Moser, 2019).

In the first level of coding, or open coding, involve the determination of themes and the recognition of codes (Williams & Moser, 2019). Therefore, in this study, transcripts were needed for the coding process. To ensure extensive research, the number of interviews recorded was not fixed a priori, it was determined by the level of saturation of information. In fact, 18 interviews were recorded in total, representing a substantial achievement of information per category and were used as input for the data analysis. Before analysing the transcripts, the themes were considered to be IWB, perceived HR practices, and virtual work. Therefore, a list of 15 codes was generated, considering the steps of the IWB, the five high-commitment HRM practices and positive and negative aspects of the virtual work.

The second level of coding, or axial coding, has to categorize and create distinct categories for the next level of coding. According to the Grodal et al. (2020) method, the coding phase can be seen as a combination of the deductive and inductive approach: deductive reasoning investigates the theory by collecting and examining empirical data to determine the reliability of them, while inductive reasoning seeks to formulate theory from data analysed with the aim of interpret research findings. In fact, the relationship between IWB and HRM in the pandemic context has increased the number of codes. Dependence on work culture, dependence on family status, Covid-19 regulations and new HR practices were just some examples of inductive coding, which increased the number of codes from 15 to 35. They integrate the knowledge provided by the theoretical and empirical sides (Williams & Moser, 2019).

The third phase within the process consists of coding and analysing the, that is the selective coding, or the third level of coding, where the aim is to select and integrate data from

the previous level in order to facilitate the construction of meaning (Williams & Moser, 2019). In this sense, the second order code regarding the location of virtual work was differentiated between positive consequences and negative consequences: considering the double aspects of the online environment, it was possible to divide its characteristics between pros and cons, always based on the perception of the respondents.

All the coding process was developed by inserting the transcripts of the interviews in the computer program ATLAS.TI.

The coding scheme used in the study can be found in the appendix. This scheme will form the basis from which conclusions will be drawn. The deductive and inductive methods support the theory according to which the use of a predetermined code scheme can bias the researcher in finding evidence that supports the theory and reduces objectivity. Furthermore, relying too much on theory could distract the researcher from the contextual aspects of the phenomenon. Glaser and Strauss (1967), as well as Hsieh and Shannon (2005), suggest an audit review to obtain results without biases and increase trustworthiness. Hence, in this study, the analysis of the data has been examined and reviewed by the thesis supervisor. Moreover, the description of the operationalization of the variables and the collection of the codes used have been provided (Appendix II).

Operationalizations of the variables

As we want to explore how HCWP could enhance IWB in virtual work, for the data analysis it is crucial to operationalize the main variables: IWB, HCWP and virtual work. The conditions for formalization are already addressed before.

In the current study, IWB will be operationalized into the opportunity exploration, idea generation, idea championing, idea application, and reflection steps. Theoretical implications tell us that the five tasks for innovation development may overlap, and therefore are sometimes hard to distinguish. We think that opportunity exploration and idea generation have the most overlap with each other. This is also assumed for idea championing and idea application. Accordingly, we believe that the creativity stage and the implementation stage can be well distinguished. Reflection represents a per-se dimension. The operationalizations of the four tasks are based on those of Messman and Mulder (2012), and can be found in Appendix II.

Regarding the high-commitment HR practices (HCWPs), supportive supervision, training and development, information sharing, compensation and rewards and autonomy has been identified. The operationalizations of those HRM-practices are based on those of Boselie et al. (2001), McClean & Collins (2011), Veenendaal, & Bondarouk (2015), Bos-Nehles & Veenendaal (2019).

Finally, according to the literature, the virtual work can be operationalized in at least three dimensions: the location, e.g. where to work, how the work is accomplished and the way the tools are used to accomplish the tasks, the relationships between workers and organizations.

The definitions in Appendix can provide insights of the operationalizations of the variables.

4. RESULTS

In order to determine which of the perceived HR practices can ease employees to stimulate IWB within a virtual work environment, in this section findings from the interviews are presented. First, the national context and the health measures will be discussed, highlighting the differences arising in Italy and the Netherlands under the point of view of country's regulations and companies' regulations. Subsequently, some considerations about the IWB were made in order to assess what is needed from employee side to engage in innovation. A dependence path of dimensions influencing innovation in an uncommon setting arise. In the end, findings regarding the HR practices are provided and discussed, considering how these practices were applied, which has been the problems, what are the potentialities for HRM in innovation drive to the discussion and conclusion. Evidence from the interviews in the form of quotes are provided per finding.

4.1 Covid-19: norms and regulations

Considering the two different nationalities of the respondents, more information about how each country has dealt with the health crisis should be provided.

In the second half of January 2020 some infected people and the first Covid outbreak were identified and confirmed in Italy. On the 31th of January, the Italian government declared the state of emergency on the national territory concerning the health risk. In this country, it has been recorded three epidemics waves. The first from the 5th of March to June, with restrictions concerning shops, restaurants, religious celebrations, and prohibits gatherings of people in public or public places, and the first national lockdown was imposed on the 9th of April. The second wave started from the 8th of October 2020 and it was characterized by the mandatory use of the face mask both in outdoor and indoor and the imposition of the curfew from 22.00 p.m. to 5.00 a.m. Then, the regions of the country were divided between with, yellow, orange and red zone, based on the number of infections recorded: in this way some regions were allowed to re-open commercial activities. Nevertheless, from the 15th of March 2021 another national lockdown was imposed due to Easter holiday: the third wave ended in the second half of April 2021, together with the beginning of the vaccination campaign.[1]

In the Netherlands, the first COVID-19 case was confirmed on the 27 February 2020 with a slower growth pattern of infections compared to Italy. In fact, some preventing measures were introduced, and on the 16th of March 2020 the prime minister announced that the preferred approach would be to tackle the epidemic by building population immunity, followed by the closure of schools, cafés, restaurants, sports clubs, till the end of May 2020. Face masks become mandatory just in public transport. This first waves ended in June 2020 and the second wave is considered to start in late September with the imposition of a national lockdown from 15th of December 2020 to 15th of March 2021. Moreover, starting on 23rd of January 2021, the Dutch government introduced a curfew between 9.00 p.m. to 4.30 a.m., that causes violent protests erupted as a reaction. In January 2021, COVID-19 vaccination program started.[2]

Although the measures were quite the same the two approaches present conflicting features. The Italian way of managing the crisis was based on a stricter and a two-week

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[1] Cfr. https://www.salute.gov.it/
[2] Cfr. https://www.government.nl/

planning of future actions, while the Dutch one on the strategy of the social distancing and population immunity, in order to control the spread of the virus with a softer approach, together with a long-term plan in the case of a positive forecasting of the number of infections.

The rules applied inside the companies were pretty much the same in both countries. In fact, both respondents stated that they have to wash hands regularly, respect of 1.5 metre distance, fill in a form in order to ensure that there is enough space every time that they access the office, so that the office was not overpowered, and then risky. Moreover, all the companies provided temperature controls, the installation of sanitizing gel, and a regulated usage of common areas. The main difference is the use of the facemask: in the Netherlands, face-masks were used just in the main common spaces and when moving from a workstation to another place; in Italy the use of the face mask was mandatory for all the length of the working hours. Even regarding the working from home some difference arose: for most of the time, in the Netherlands the government recommend to work from home whenever is possible, while in Italy the rule was to work from home and only in special case the employee can go to the office, filling in a request.

Therefore, analysing the perception of Dutch and the Italian employees of the governmental measures, it is possible to affirm that the Dutch employees understand them more like a recommendation, whereas the Italian perceived it like a civil duty. This comparison highlights even the difference on how stricter were the impositions in Italy.

"The company allowed all research groups to stay open" [D1]

"With Covid nothing really changed for the company" [D1]

"It was perfectly fine going to the office" [D3]

"The company had a very restrictive attitude, preferred not to risk. In Italy few, very few people, so senior and manager could return to an office for up to 6 people. Very restrictive measures. Which I think is correct." [I2]

A possible reason of these opposite considerations could be the countries' culture and the sanitary system's functioning, which shapes the crisis' perception.

Further, the employee perception of what their company could have been managed differently in this particular situation is overall positive. They recognize that the companies have done everything in their power to respond to the emergency, emphasizing a first moment of difficulty and disorientation due to the new and never managed before event. Just one of the trainee respondents reproached to her company to did not implemented a coping practices to replace the direct contact with the supervisor and the members of the team.

Moreover, what was evident to all the interviewees is that with the Covid crisis, markets' needs, people's life style and requirements were totally changed. New perceived priorities have started to developed and influenced the employees' claims for future work conditions.

Another key point in the management of the pandemic situation in the two work environments is the digital savviness, i.e., the degree to which the workforce is able to deal

with technology. In fact, countries achieved different levels of digitization, which represents a pathway to prosperity. Based on the Digital Economy and Society Index 2020 (DESI), The Netherlands's score is higher than Italy's one in the ranking: although in 2019 they were rated similarly (the Netherlands 12.6, Italy 12.0), in the end of 2020 the Netherlands shows his technological superiority, scoring 15.1 against 12.5 of Italy.[3]

The following quote confirm these data and show that in the Netherlands people were more used to work with digital equipment, even before Covid crisis.

> *"I think we have been all very innovative because we have in a short time, we had to completely change the way in which we work, the tools that we use, the products and in the past especially the old people, they were used to have jobs meeting in their office. Well now you are always keeping them engaged by using different tools, by announcing their experience when there is a document or an Excel file. So, it's always a matter of first understanding the person that you are dealing with, what is their role and what you want to achieve. I think also probably if this pandemic would happen five years ago, things would be completely different because I don't think we would have the tools to really react in the way in which we have reacted this year."* [D2]

All the respondents arranged a private workstation, with a desk, the corporate PC, a screen and a comfortable chair to work, often provided by the company as a bonus or a reimbursement for the emergency situation.

4.2 IWB

Innovation is generally considered a way to do things in a better and more efficient way by the entire sample. It is considered to be driven by confidence and reflection, freedom, time and space, and passion.

When respondents were asked to analytically analyse the innovation process, some difficulties arise when dealing with reflection: senior employees explain way better both the first four steps of IWB than reflection, while junior employees find more challenging analyse the innovation process in abstract terms. Indeed, the latter did not spontaneously mention the reflection phase, but recognize its importance just after the interviewer mentioned it to them.

During the Covid crisis, opportunity exploration and idea generation, driven by eagerness to do better and challenge yourself, was intended to be difficult to recreate. The most used way was through video-call, messages, both personal and professional, and emails. The platforms more used were Zoom, Google Meet and Microsoft Teams. These fluid tools were not easy to implement.

The perception of technology of the Italian and Dutch employees seems different. Dutch are more willing to see the positive side of this tools: sharing screens is enough to be on the same page and share ideas with colleagues and supervisors, while Italians are a bit more reluctant in using technology. This is due to the country's and work's culture. In fact, Italians' culture favoured physical contact. Interpersonal relationships in other work culture are usually

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[3] Cfr. https://digital-agenda-data.eu/

very different and much more detached at work. Moreover, the argument of digital savviness hold.

Idea championing has been seen simultaneously as an opportunity or a disadvantage:

"Because the nature of computers, when everyone or most people are at the office, everyone appears in the way more visible. And therefor, it's way easier to find the people that you need." [D5]

"We are still in the phase where everything is at a distance, so it is difficult to get back to having exchanges as we had before" [I8]

Even in this case, country culture, work culture, and digital savviness play a role.

Idea application is the IWB step to did not have recorded particular variation before and during Covid.

Junior and senior employees have a different awareness of reflection, which is often taken for granted as a step involved in each of the previous. Senior employees recognize the importance of reflection and its function of linking up the innovation process with the desirable outcomes.

"There is a need for a loop, which is open, that is, you go back and forward, always with the aim of solving the initial problem" [I1]

Innovation and being innovative is explained as a circular course of the same phenomenon, one running following the other.

What is need to be innovative from the standpoint of employees is subjective. Some respondents highlight experience as the way to be innovative: the more they learn the more they can propose new ideas and manage better innovation processes. Others pretend work tranquillity to engage in pure innovation, meaning that work stability and team cohesion can make a difference. Time is often considered fundamental to innovation: if you have an idea and you have the time to devote to think to that idea, then you could be innovative. Another key aspect is contacts, understood as the availability to exchange ideas with peers, supervisors, and luminaries of the research field. Training and updating courses also take a role.

According to the majority of the respondents, it is possible to be innovative from home. What is needed according to employees is an organized flow of the activity, a structured process. Even, more input, more feedback, and more training can increase the chance to be innovative in a home working setting. A major obstacle in the home innovation is the uncoded knowledge of the company: those hidden and intrinsically embedded information and practices, which are not explicitly considered in the daily activities, but are always present.

"You assume that dynamics can cause problems when those bridges [relationships between colleagues] fall. So, the fact that you can solve problems by just going up and asking, maybe you can't find documentation, you can't find a file you need, but you can count on the experience of those who relied on that project, makes everything less clear from the point of view of what it means to

be structured. Although as a company you may feel structured. Covid has highlighted these internal weaknesses. Working all from home has fallen the concept of measurability and structuring of activities" [I1]

This knowledge can represent a real loss for companies and the immediate and sudden displacement of the workplace could have hidden its importance to the majority. What is probably going to happen, and partially already happened, it is that this embedded knowledge will be transformed based on the tools and the new way of working we now have.

To conclude, innovation is possible in an online setting but it is harder for junior employees. This finding is the most relevant. Junior employees that have to innovate working from home perceived it as difficult because they are not aware of the HR practices, they cannot rely on their previous experience, and they don't know which are the steps to be taken to reach the goal. Also, they don't have had the possibility to develop a network. This has been detrimental for them. In fact, some invisible barriers took place. Trainees affirm that they do not "disturb" their supervisors by phone to get information useful for their work. This behaviour traces the influence of communication and perception of HR practices on innovation.

4.3 Perception of HR practices

The particular high-commitment HR practices analysed allow generalizing some research outcomes. In general, it is possible to affirm that the most relevant HR practices in the working from home situation considering all the interviews are supervisory support and information sharing. But a clear distinction can be made.

Among the Dutch respondents, it is preferred to ask for an improvement of information sharing among the company: the commitment for Dutch employees is based on the transparency of goals, vision and future achievements in the short and the long run. Whilst, the Italian respondents complained more about a lack of supervisory support. In general, a major interest in the employees' tasks and activities from supervisors is requested. This could be also due to the fact that in Italian working culture the control over subordinates is a common behaviour. Therefore, even employees in the low position are expected to be monitored by the supervisors.

The perception, and therefore the importance, of these two practices, really changes during the pandemic situation. Another HR practice requested to have a strong influence during the Covid-19 crisis is receiving and giving feedbacks. It is partially related to supervisory support, thus it could be seen as a component of the abovementioned HR practice. Based on the following quote, feedback seems to be indispensable for reflection and innovation.

> *"The first thing is always the vocal relationship with people. A vocal meeting gives you the opportunity not only to present the idea and receive feedback, but also to discuss it. This is the key point of the differences between what can be an email, what can be a discussion forum, what can be a live meeting, in which you not only listen to the idea of others but you also have the opportunity to rework your real time and redo the proposal. That flow is fundamental, so human*

interaction remains the most powerful tool of innovation. We did it very well on online platforms.” [I5]

The perception of training and development was not influenced considerably. In general, it continues to be considered a fundamental practice to stimulate innovative behaviour. Some attention can capture the statements regarding the time spent in front of the laptop in order to attend training courses: if the employee has to attend these courses out of the working hours, spending more than 8 hours in front of the PC, the inclination to do that and the attitude to bring on the field what has been learned decreased. Therefore, in this particular setting, managers should be aware of the risk that the training and developing initiatives can be unexploited. An intuitive incentive can be schedule them during working hours.

Compensation and reward were hardly ever defined under the economic lens, but mostly related to the job responsibilities, in terms of receiving more challenging projects are receiving recognition in terms of promotions. The recognition by colleagues of the result obtained seems to be the most important element to stimulate IWB.

The perception of autonomy seems to remain stable before and during the Covid-crisis. Everybody stressed the fact that to be innovative lot of autonomy is necessary. Differences about the employees' perception arose just regarding the conceptualization of the practice: some linked it to the time available to them, other to the resources they can manage. Therefore, this HR practice continued to influence positively employees' IWB.

Concluding, although the work environment changed, the HR practices continue to recover a major role in the fulfillment of employee well-being. The perception of the HR practices changed slightly during the Covid crisis. Considering that all the respondents were working for big and structured organizations, they seem to have been perceived positively what the HR department has tried to do. Nevertheless, some suggestions arose. Moreover, those interviewees working in the public sector recognized less support in the management of the crisis.

4.4 Dependencies and contextual factors

From the considerations developed in the previous paragraphs and the inductive coding, some mitigating factors are worth to be mentioned. The relationship between company's HR practices and innovations has to deal with some pandemic dimensions. Work culture in the country, work culture in the company, job position, type of work, and family status are the dependencies identifies through this study.

Work culture in the country, as already explained, favoured physical contact, while the Dutch culture is more inclined to direct verbal communication. Therefore, the communication sphere can be considered on a pair with the work culture of the country and the work culture in the company.

> *“I mean, the company is the same, it's just the fact that the culture really shapes the way in which things are done. So, the company of course is the same but the underlying culture of the country shapes how things are done. So how exactly you are out and how much you take care of your employees.”*[D2]

Suggestive is the comparison between the case in which a larger company can provide many more tools to keep their employees engaged and provide more support for the emergency in opposition to the case in which a smaller company has a laissez-fair approach, with more complaints for the crisis management.

The job position influences the relationship between the perceived HR practices and the IWB of the employee too. It has been discussed those junior and senior employees have a different point of view. Specifically, certain seniority is needed when analysing and abstracting concepts from concrete situations with more accuracy. Moreover, senior employees showed to have more stronger opinions.

The type of work is intended to classify the employee based on the working field. A difference in the sample arises between research-oriented employees and industrial-oriented employees. Research-oriented employees suffered less for the virtual work: although some limitations linked to the access to the laboratories, they continued to carry out their work. This kind of work is more likely to be managed in an online setting. Instead, industrial-oriented employees were unable to reset the work from their house. Consequently, even the managers of these workers are reluctant to the virtual work: the feeling of losing control over operations pushed them to work from the office as much as possible.

Individual family status (e.g., living alone; with others; with young children) has been even determinant. In fact, some of the respondents suffered not only for spending all the time in the same location where they live and where they work, but even for sharing every moment with the same person or people. People who lived alone tended to work more and suffer more from stress.

> *"Working from home, always having active chat, active email, Japan connects early in the morning, the United States in the evening from 18 onwards, you end up working 14-15 hours a day. This at the beginning fills your day at a time when you can do nothing, in pandemic, at least you occupy time with work. True at the beginning. However, this then taking root from week to week produces a huge stress in people."* [I2]

Considering all these mitigating factors on the relationship HR practices-IWB, the conceptual model can be modified in the following way (Figure 2).
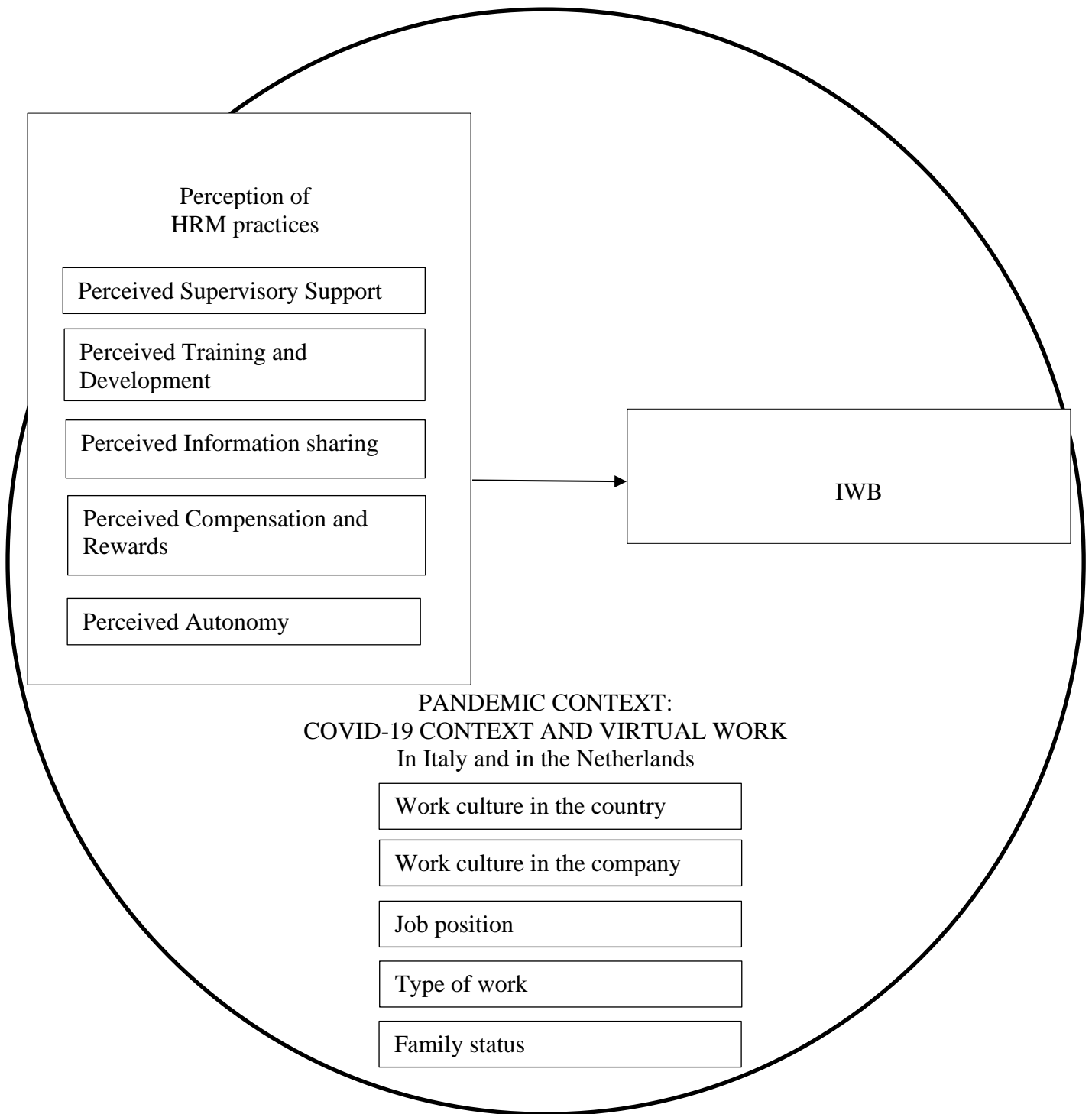
Figure 2. Dependencies and contextual factors' role in the conceptual model

Perception of
HRM practices

Perceived Supervisory Support

Perceived Training and
Development

Perceived Information sharing

Perceived Compensation and
Rewards

Perceived Autonomy

IWB

PANDEMIC CONTEXT:
COVID-19 CONTEXT AND VIRTUAL WORK
In Italy and in the Netherlands

Work culture in the country

Work culture in the company

Job position

Type of work

Family status

4.5 HRM and the room for being innovative working from home

In general, the pandemic situation has pointed out many things that can be improved. Considering all the variables, what is clear is that the particular situation the world is facing now can offer not only an important food for thought but even a room for improvement for practices already exiting.

In order to evaluate what are potentialities for HRM, what could have been managed differently, and what is different than before the Covid crisis, it is better to start from what has been done and what were the problems.

Considering the pandemic situations, all the companies tried to adapt in the short time possible to the new conditions. Dutch companies have way more time to understand the magnitude of the possible economic damage, and therefore they have applied new practices in advance in order to better handle the employees' wellbeing. A common HR practice was to introduce online courses about virtual work management: because the number of emails, the number of messages employees receive in chats, or the number of tasks they do operationally through computers and no longer through face-to-face has increased exponentially they have been taught how to best manage the office from home and all the new work from home processes.

Besides training and development practices, even feedback session was tried to be managed in a continuous although different way. Most of the companies tried to schedule a weekly meeting just for the feedback session, in order to do not lose the current state of progress and show support to those trainees who dealt with certain tasks or circumstances for the first time.

Interesting is the case of a new way of brainstorm for innovative ideas. A company proposed to their employees to meet in the national park in order to spend some time there with other colleagues and just walking along. In a lockdown situation, meeting up and changing the environment could improve opportunity exploration and idea generation.

Although these new adaptations of HR practices, many issues were recorded.

First to consider is the fact that the shift from a physical to a virtual working setting was prompt and straightforward, requiring immediate adaptation, especially in Italy, from the sides of the employees that had to reinvent their office, from the managers that had to change leadership style, and from the company side that had to deal with managing the previous two issues and implementing sanitary measures without losing the focus on performances.

Focusing on the employees' level, the main topic addressed was the loss of the work-life balance.

> *"Like it's more difficult to really stop the working routine because what I noticed since the beginning is that I worked more hours, with less breaths. It's like you never really switch off your brain from the working routine"* [I4]

In fact, the majority of employees perceived to have worked more hours, especially during their first lockdown, both because they were forced home without many more distracting activities to do, and because of a missing awareness of the whole state of things, leading to decreasing efficient handling of the daily routine.

One of the reasons of the loss of the work-life balance was isolation. Not by chance, many respondents complained about isolation as the main issue. Further, being isolated and feeling more alone has led to a decrease in the creative process because of the missing interactions that stimulate it. Sometimes employees that feel isolated and left alone were even less willing to ask for support from the company, entering into an endless loneliness spiral. This represents a strong barrier to the effectiveness of HR practices, and consequently to innovation and the company's outcome. A possible way to handle this kind of situation is implementing practices that let the employees feel an active part of the process, sharing the choices that it has made. Through this practice, the acceptance of the situation and the following adaptation could be smoother.

For these reasons, the top management should be aware of the declared issues and should try to create engagement on the acceptance and adaptation of this new way of working. Considering what could have been done differently, the main argument rising from the qualitative analysis is to do not let the employees be left alone. Regarding this point, comparing the same company in the two countries, it seems that Netherlands has had a better implementation of HR practices.

> *"I mean, I think it's just a matter of timing, right? So, when it started in Italy, here in the Netherlands was not a real issue. So, I think about that the more time to really introduce new measures, to really think how to introduce new measures. But at the same time, what I understand of course I'm not working anymore, but what I understand from my colleagues still working there [Italy] is that they were left alone a bit. While I did not have this feeling. So, it's just a comparison of experiences between what I'm living in the Netherlands and what other people told me that they're experiencing in Italy."*

Therefore, there is more room for improvement for Italian companies.

4.6 Overview of the findings

Differences and similarities between Italian and Dutch employees are summarized in the following table (Table 2). Considering all these findings, it is possible to state that there is more room for improvement for Italian companies and HR managers.

	Italy	The Netherlands
Lockdowns	Longer period	Shorter period
Perception of Covid regulations	Civil duty	Recommendation
Digital savviness	Low	High
Perception of technology	A bit reluctant, preference for physical contact	Positive
IWB	Differences in identification of steps between trainee, junior employees and senior employees.	
Innovation working from home	It is possible, but it is harder for trainees and less experienced employees	
Perceived HR practices that facilitate IWB working from home	Supportive supervision and feedback	Information sharing and feedback
Main perceived issue	Isolation	Transparency

Table 2. Differences and similarities between Italian and Dutch employees

5. DISCUSSION

This study's primary objectives were to determine in which way the perceived HR practices can facilitate employees to stimulate IWB within a virtual work environment. By examining the role of perceived HR practices, this study has generated several insights with interesting scholarly and managerial implications. The most relevant finding suggests that in the Italian online work environment supervisory support and feedback sessions represent the HR practices that can highly stimulate IWB, while in the Netherlands information sharing has this role. Contextual factors need to be taken into account: work culture in the country, work culture in the company, job position, type of work, and family status are the dependencies that represent the conditions for which those HR practices are appropriate to face the exogenous event of Covid-19 crisis.

5.1 THEORETICAL IMPLICATION

This study enriches the growing body of empirical evidence of the relationship between HRM and employees' innovation and the different perceptions of the HR practices in an online environment, contributing to the limited virtual work literature.

All the mentioned HR practices have a positive impact on the IWB steps in the online setting, although the step of idea realization in the online working setting is not affected by these practices. This is in line with the literature, where all the practices analysed were described to be positively related to IWB (Boselie et al., 2001; McClean & Collins, 2011; Veenendaal, & Bondarouk, 2015; Bos-Nehles & Veenendaal, 2019). Some of these practices are more relevant in the forced working from home situation. Supervisory support and information sharing are the most relevant practices to considered in the virtual work because of the role communication has in a situation in which the way of communicating change. Precisely, supervisory support can positively stimulate opportunity exploration, idea generation and reflection, while information sharing can positively affect opportunity exploration, idea generation, idea promotion and reflection. Training and development, compensation and reward and autonomy seem to be as influential as before Covid-crisis. Even in this case the findings follow the literature. In fact, the previous practices could have an ambiguous impact on IWB (McClean & Collins, 2011; Veenendaal, & Bondarouk, 2015).

The perception of all the HR practices is changed not only for the different way they were provided but even because of the different needs the employees had in the current situation. Changing the needs means a necessary redesign and readaptation of the HR practices. In the case where this has been done, the employees' perception of HR practices and the company remain highly positive.

Stating that it is possible to be innovative working from home, this study concludes that HRM has to focus on the practices that create engagement and develop new stimuli in order to stimulate the extra-role behaviour of employees in an uncommon way of working. The reciprocation feeling is always at the base of the relationship between employees and employers; thus, it can be encouraged by this bundle of HR practices.

5.2 PRACTICAL IMPLICATION

IWB can be enhanced by strengthening the perceptions of certain HR practices in a virtual environment. Therefore, managers can rely on a discretionary behaviour even in particular working settings. Showing more support and being more transparent on company's future actions can help the employee to perceive to be part of the process. This would create more engagement, which is required way more in a situation of social distancing.

Moreover, more formalization is required. Employees that live a fluid daily routine ask for structured processes. Therefore, managers can set up regular feedback sessions, for example, trying to maintain employees' attention and engagement high. Otherwise, the employees' perception will follow the flow of a never-ending flattening, which evolves in an inconsistent IWB.

Stimulation of IWB should follow a different path when dealing with the online environment. Nevertheless, it is still possible. Therefore, the importance of HR practices and the way HR managers implement them increase.

5.3 LIMITATION AND FUTURE RESEARCH

This study also has its limitations. The first important limitation is that the analysis was developed between multiple firms and industries. Consistency in the research has been questioned. In this study, multiple firms and industries were considered, based on the assumption that more insights can be provided. In fact, the abundance of information has been exploited to generalize the findings.

Moreover, individual differences were considered among the interviewees. Specifically, the difference in the perception of HR practices and the understanding of IWB by trainees, junior employees and senior employees have been highly relevant in the formulation of the results. Therefore, further research should focus even on just one of the above-mentioned categories of employees when considering the sample to be selected. In this way, more accuracy can be provided. Moreover, perception changes the way employees understand their working reality but personality traits can also play a role. In this study, these aspects were considered when the interviews took place: the questions are slightly adapted to the respondents based on those considerations.

Another limitation is time. This study was developed in a particular frame of time, during which all the respondents have experienced lockdowns and forced virtual work. The findings can show different results in the case virtual work is considered as a discretional way of working. Further, on the same line, the results depend on the length the interviewees were forced to stay at home. Therefore, the strength and truthfulness of the research are based even on the peculiar time frame in which the research took place.

6. CONCLUSION

The use of a two-countries analysis has allowed us to answer the research question *in which way can HRM practices facilitate Italian and Dutch employees to engage in Innovative Work Behaviours in the virtual work situation and working from home*? This research provides insights for a better understanding of innovative work behaviour that should be stimulated in a situation of isolation for the employee.

The bottom line is that changing setting has changed how people perceive colleagues, superiors, HRM practices, etc. This means that what employees are willing to reciprocate to the company has changed as well. What they reciprocate depends on work culture in the country, work culture in the company, job position, type of work, and family status. Based on a positive or negative dependence of these elements, the worker can continue to contribute to business innovation through his/her behaviour.

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APPENDIX

Appendix I - Interviews questions

1. Can you introduce yourself?
   (Which is your role/position in the company? What is your function and what are your responsibilities? What have you done before? Is your role changed in the past months?)
2. Could you elaborate on your working situation during the COVID-19 pandemic?
   Asking for how he/she arrange everything to work from home (children, husband/life, internet connection, working time)
   (Did you work from home in the past 12 months? And in the past 24 months? Currently?)
3. How did your company react to the measures provided by the government and what were the consequences for you?
4. What is your opinion about it?
5. In your opinion, what should the company have changed to deal with the pandemic situation?
6. In what ways are you engaged in innovation (projects)? What are the possibilities for you to be innovative in your work?
7. What do you need to be innovative?
8. Could you give an example of an innovation process in which you have been involved? What were the different steps taken from the start to the end?
   (Ask for follow-up questions if they do not come up with reflection, for example:
   How you look back to the innovation process? What have you learned from it?
9. How can you be innovative working from home? How do you do it? even comparing it with the "normal" innovation process (before Covid-19)?
10. How do you work on innovative projects during the Covid-19 crisis?
    - How do you manage the innovation process?
    - How do you brainstorm for innovative ideas?
    - How do you ask for feedback on innovative ideas?
    - How do you look for and involve the necessary expertise for the innovation?
    - How do you engage with the supporters of your innovation?
    - How do you implement innovative ideas?
11. What do you think of the way your company dealt with innovation before Covid and during Covid?
12. What did you need from your company to engage in innovation processes before the pandemic crisis? And now?
13. Which HRM solutions would you need to engage in innovation? In your opinion, in what way could HRM solutions influence those innovation steps?
14. What kind of support (computer, internet connection, psychological support, interest from the company) would you need in order to reach the different stages?
15. What kind of support do you need from your supervisor to be innovative?
16. How does your company need to reward you for your job in order to be innovative?
17. How should the training and development policy and initiatives look like for you to be innovative?

18. In what way should the company share information across the organization for you in order to be innovative?

19. How much autonomy do you think is needed to be innovative?

20. Reflecting again on supervisory support, training and development, information sharing, compensation and rewards, autonomy, [others if mentioned by the respondent] for innovation, what should your company have changed to deal with the pandemic situation? (Other practices)?

21. Do you have a question for me? Do you still want to share anything else?

Appendix II – Coding Scheme

Innovative Work Behaviour

1st order code	2nd order code	definitions	code	example
IWB	Opportunity exploration	Recognition of problems	IWB_OE	*"It's always started with the problem, with the need, with how you can do something better but same time it's also the eagerness that you have in order to do that better and to always challenge what this sounds good."*
	Idea generation	Thinking about ways to improve products or processes	IWB_IG	*"Starting from there you start brainstorming how you can change it, how we can achieve next step, what you can do, and what are the people that you can contact in order to help you really facilitate the process. And this, I think, is the second step: when you become really aware of what's happening and you also become aware of people who you can use in order to overcome this problem."*
	Idea championing	Search for sponsorship for the idea generated in order both to be adapted in existing systems and to find financial support	IWB_IC	"*I think the base is always to have a really direct communication to set the common ground for what you expect, what other people expect, what are you looking for, what they're looking for. And then yeah, it evolves."*
	Idea application	The idea is produced and the invention is implemented and marketed: it is the development and launch of innovations	IWB_IA	*"These first two phases are quite easy because ì it's still everything very vague, so you really brainstorm with people how to group things. But then the real issue is first how could that be in practice and then how to*

				measure result. So put that in practice it really depends, so of course that you need to try to wait, sometimes the first way is not the correct one, so you need to accept your idea and think how/what you need to improve and it really takes sometimes and then advance the assessment of the outcomes which is what really shows you if the direction that you're taking and it's the following is the correct one or not."
	Reflection	Linking past and present experiences for better future outcomes in order to have a bette awareness of the context	IWB_R	*"There is a need for a loop, which is open, that is, you go back and forward, always with the aim of solving the initial problem"*

High -commitment HRM practices

1st order code	2nd order code	definitions	code	example
High - commitment HRM practices	Supervisory support	Leadership behaviour expressed by showing interest in employees' feelings and needs and providing feedback	HCWP_SS	*"Working together with him. How often do we open that door and discuss that work together. I think that it is also the most important thing. We often do that."* *"He is a person who involves you a lot in activities. [...] Then it is a person who leaves a lot of room for expression, does not suffocate and he is willing to listen to a different*

				point of view. Then it allows the possibility to buy what is needed to be innovative: instrumentation, software, materials. So, I have full support."
	Training and development	The perception of employees' chance to develop in their own job and career and the firms' availability of resources for the exploitation of their value	HCWP_TD	*"I divide the training into two parts: the technical training should be very inherent to the activity that is required. [...] The other part of the training is about how you are inside a company: how you relate to people, both from a working and human point of view. [...] Training and development go hand in hand with fluidifying business processes and structuring them, the passage of quick and useful information. On the other hand, more technical training for people working in the technical field focused on their activities."*
	Information sharing	Eemployees' perceptions of the extent to which they are informed about the organization's goals, norms and values, so that they know what to expect and what is required by them	HCWP_IS	*"[The company] always needs to be transparent because whether they are not transparent about different and clearer what is the goal. So transparent meaning what's the vision and clear about the goal, what they want to achieve in the short run and in the long run"* *"There are different types of ways in which the company can share information. The best known is the all-hands meeting, where managers who are two/three/... five levels higher bring you*

					back to where the business is. So, you realize what's going on outside, because your bottom-up view is always very limited."
	Compensation and rewards	Employees' perceived fairly compensation and distributive justice		HCWP_CR	*"Of course the bonus, but also in terms of your rule, so are receiving more challenging projects are receiving recognition in terms of promotions."*
	Autonomy	Degree of perceived independence and freedom of employees in performing their tasks and duties		HCWP_A	*"Autonomy for me always lies in the time available."* *"Enough independence and an easier management of the funds that are there. If you have to put your hand to a test you must also see the funds that are there and calibrate for what is worth spending"*

Virtual Work

1st order code	2nd order code	3rd order code	definitions	code	example
Virtual work	Location	Location Negative aspects	Isolation, Less opportunity to discuss thing and to have feedbacks on	VW_N	*"There are some people for which it was really difficult to work from home because they did not have enough space to create their own office setting or for example. We have a lot of working parents"*

		Location Positive aspects	Opportunity to have home office and work office, technology advancement, digital savviness	VW_P	*"I need to update my internet connection to a better one. Now I have fibre connection"*
	Methods and Tools		How the work is accomplished and the way the tools are used to accomplish the tasks	VW_Methods VW_Tools	*"With all communication services such as Zoom, Teams, has activated much more the comparison with colleagues on these platforms."*

Contextual factors (open coding)

1st order code	2nd order code	code	example
Dependencies and contextual factors	work culture in the country	CF_WC	*"There are two types of culture, right? One is the company culture, that of course shapes how the company's guidelines have been applied, but at the same time you need to go one level deeper and adapt to the country."*
	work culture in the company	CF_WCC	*"When you work in a company like mine it's easy because you have a lot of tools, so probably if it's not... maybe because, I will not say the word "spoiled", but indeed I am compared to other person working in other companies because I have way more many tools"*
	job position	CF_JP	*"So, I think for me it was relatively easy to adapt to working from home because I'm also an experienced professional, so I know what's expected from*

			me and I need a little guidance. I am more the one in the lead so it's easier for me to drive processor. But what I realized throughout this period is that we were challenging for junior resources, or junior people because they need guidance and they do not really know what to expect, so it's not easy for them to grow in their role when they cannot observe in the daily work"
	type of work	CF_TW	*"My company started an internal risk assessment. As a design group, we don't have a lot of laboratory or production activities. We do something with a small number of people working there. In addition, also the part of HR and site management and administrative part. So, the company set up a smart working plan and allowed people to work from home in the pandemic phase."*
	family status	CF_FS	*"There are some people for which it was really difficult to work from home because they did not have enough space to create their own office setting or for example. We have a lot of working parents"*