

(Re)thinking work in SMEs

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Summary: 1. Introduction – 2. Literature review– 3. Legislation – 4. Methodology – 5. Results – 6. Discussion – 7. Conclusion – References.

Abstract

Purpose. The improvement in the management of knowledge and technology is leading to (re)thinking an innovative organizational model based on flexible work, namely “smart working.” This paper presents the main benefits of smart working, the Italian legislation, and some case studies in Veneto small and medium enterprises (SMEs), one of the most prosperous and important economic areas in Europe. Design / methodology / approach. An exploratory approach was adopted to describe smart working and to investigate certain Italian SMEs to evaluate the real implementation of smart working according to the key variables of smart working implementation and the critical success factors of the smart working design. Findings. The research highlights a poor implementation of smart working in SMEs; however, there are already initiatives related to flexible work based on informal activities. Practical implications. By showing evidence on smart working in an economically advanced European region, it sheds light on how flexible work plays out in a real context.

Keywords: case study, smart working, SMEs.

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Arrived 29th April 2020; accepted 12th October 2020.

DOI: 10.15167/1824-3576/IPEJM2021.1.1348

1. Introduction

Topics such as information technology and knowledge-based systems (Carlile, 2002; Dyer and Nobeoka, 2000; Gold et al., 2001; Spender, 1996; Wasko and Faraj, 2005) have recently been studied concerning the study of the strategy, management, and organization of companies. In the past 10 years, scholars have investigated knowledge related to innovation, information management, and knowledge sharing and transfer in the digital era (Abubakar et al., 2019; Bresciani et al., 2018; North et al., 2018; Perkmann et al., 2013).

The unstoppable technological evolution, which has plagued private and working lives for years, has favored the search for new innovative forms of corporate resource management; however, it is relevant to (re)think the work (Colbert et al., 2016; Dery et al., 2017; Ferrazzi, 2014; Li and Herd, 2017; Sardi and Garengo, 2015) in which business process capabilities and organizational learning (Sardi et al., 2018; Wu et al., 2014) play a key role.

Smart working has become a new approach in which the organization of a company and a team are focused on the balance between private and working life for organizations to improve the link between work and new technologies (Podgórski et al., 2017; Torre and Sarti, 2020).

This interaction between knowledge, work, and technology is leading a new work organization model based on flexible work (Burdinand Pérotin, 2019; Errichiello and Pianese, 2019; Fleewood, 2007; Lewis and Humbert, 2010).

The European Union is promoting forms of flexible work, or “smart working,” highlighting to its members the social benefits derived from the work-life balance. Following the EU, Italy is also promoting smart working through actions aimed at protecting workers who operate at different times and places than company headquarters. The Italian legislation Law 81/2017 defines smart working as “an execution method of the subordinate employment relationship established by agreement between the parties. It can forecast work management based on phases, cycles, and objectives and without specific time and place constraints. It can be supported by technological tools. The job activities are performed inside and outside the company without a fixed position within limits daily and weekly.” The Smart Working Observatory of the Politecnico di Milano defines smart working as “a new managerial philosophy based on giving people back flexibility and autonomy of spaces, times and tools in exchange for greater responsibility on results.” With smart working, the workplace loses its previous role (Torre, 2015, 2016). In this context, smart working is defined as an organizational model aimed at promoting flexibility and a better work-life balance. According to recent research, it is recognized as a useful model for quality improvements in living, working, and productivity conditions (Kelliher and Anderson, 2008; Shanmugam and Agarwal, 2019; Van Der Voordt, 2004).

According to Politecnico di Milano, in 2019, Italian smart workers numbered 570,000. Smart working is a consolidated model in 58% of Italian large companies. In contrast, small and medium enterprises (SMEs) do not adopt smart working sufficiently, although in 2019, there was an increase from 8% to 12%, while 18% of

SMEs have informal smart working projects (Working, 2019). Flexible work is currently a key topic for organizations, and previous research has provided case studies on smart working in SMEs (Cañibano, 2019; Carlson et al., 2006; Decastri et al., 2020; Tagliaro and Ciaramella, 2016; Wilkinson et al., 2018).

This paper presents smart working opportunities by analyzing the recent Italian legislation and case studies in Veneto SMEs, one of the most flourishing and important economic areas in Europe. Therefore, the multiperspective approach contributes to the literature on smart working practices, highlighting that it is possible to promote the adoption of an approach oriented towards (re)thinking work organization in to develop efficient smart working models. Through an exploratory study, the research indicated there is no systematic implementation of smart working in SMEs as a process of cultural and organizational change; however, it showed that flexible work is implemented using an informal approach.

The paper is organized as follows. In the next section, the paper describes the literature background of smart working. Consequently, it introduces the Italian regulatory context, characteristics, limitations, and benefits resulting from smart working adoption. Finally, it describes case studies carried out in the Veneto Region.

2. Literature review

Current technological transformations have led to direct and identifiable repercussions on producing, marketing, and work organization (Burdinand Pérotin, 2019; Fleewood, 2007; Garengo and Panizzolo, 2013; Panizzolo et al., 2010). These transformations offer two different opportunities. On the one hand, multiple opportunities associated with the creation of new wealth and greater well-being are offered. On the other hand, there is a solution to the challenge related to the social sustainability of a new economic system. Both opportunities should lead to improving the work-life balance (Bednar and Welch, 2019a; 2019b).

Digital transformations occur at a much faster pace than ever before. Humans and machines interact in technologically intensive environments, putting into practice what has been called “sociomateriality” (Orlikowski and Scott., 2008). Some examples are smart buildings, smart mobility, smart infrastructures, and structures (Alter, 2019; Andrushevich et al., 2017; Avgoustaki and Bessa, 2019).

In this challenging scenario, new needs arise, and consequently, new products are developed. Companies that innovate first and therefore benefit from new technologies have a significant competitive advantage. The destruction and creation of new job positions associated with the introduction of new processes will occur (Iapichino et al., 2018). These changes will lead to an organizational model based on work flexibility, such as “smart working” (D’Amato, 2014). D’Amato defines smart working as a dynamic and interchangeable workplace. It differs from teleworking in which the subject usually works at home because it allows employees and employers to select the times, places, and tools, typically technological, such as PCs, smartphones, and tablets. The smart concept refers to advanced forms of work organization in which the smart worker must operate during complex processes, interact remotely

cooperatively and collaboratively with colleagues, and be evaluated based on achievement results (Mattalucci, 2014).

To implement smart working, organizations must redesign job places and work tasks, service delivery, and performance measurements (Hörning et al., 2018).

Smart working aims to simplify teleworking. It allows working where and when people want, increasing greater hourly and organizational flexibility. In this way, as Olivieri Pennesi (2014) states, new work balances can be concretely achieved. The economic crisis has led to a review of the competitiveness, productivity, and innovation capacity of organizations. Therefore, the need has emerged to rethink organizational policies by integrating the flexibility of time and place of work as well as to adapt to new behaviors, leadership styles, space management, and use of communication technologies (Chiaro et al., 2015).

Barbier and Nadel (2002, pp.VII-XXV) declare that flexibility “means making its characteristics variable: the working times associated with it, the places and conditions of its exercise, its statutory and legal elements.” Organizational policies must be rethought by integrating the flexibility of the work time/place.

Recently, following the spread of agreements developed in the context of corporate bargaining, Italy has had a greater focus on smart working. Recently, it regulated different ways to work with the common element being the reduction of physical presence in the spaces destined to carry out work through the use of advanced information technologies (Neri et al., 2017). More specifically, Italy passed Law 81/2017, which defines, delimits, and promotes smart working.

Law No.81/2017 aims to “increase competitiveness” by promoting smart working as well as by facilitating the work-life balance; however, this law specifies that tax and social security incentives, possibly recognized as concerning increases in productivity and the efficiency of subordinate work, are also applicable when the work activity is performed smartly.

Smart working is recognized as one of the factors that increase productivity, profitability, efficiency, quality, and innovation. Consequently, the strategical adoption of smart working is often included in corporate welfare plans defined by national and second-level collective bargaining. For instance, smart working can benefit from tax breaks.

The benefits of the introduction of smart working can be measured from two perspectives, i.e., the company and the worker. In the first case, the main benefits are quantifiable in terms of reducing absenteeism, reducing costs for physical spaces, and increasing productivity. Always the Observatory has estimated that the increase in productivity for a worker resulting from the adoption of a “mature” model of smart working is about 15%. The overall benefit estimate is around € 14 billion. Although this estimate is hypothetical, it was developed based on concrete and directly measured data. Furthermore, the implementation of smart working provides benefits for workers and the environment. For example, the main benefits for workers are the reduction of transfer times and costs, the improvement of the work-life balance, and the increase in employees' motivation and satisfaction (Avgoustaki and Bessa, 2019; Cañibano, 2019). The Observatory estimates that 60 minutes for each working day is the average time saved by a worker when engaging in smart working. Finally, the

shorter displacement also leads to a reduction in CO2 emissions and a reduction in traffic. Therefore, considering some of the smart working benefits, it could become one of the main sustainable business models in the long-term.

3. Legislation

The main Italian law for smart working implementation is Law No.81/2017 entitled "Measures for the protection of self-employed non-entrepreneurial work and measures aimed at promoting flexible articulation in the times and places of subordinate work." Law 81/2017, Chapter II (Articles 18-24), namely "Smart working," specifies the main guidelines for the full understanding of this organizational model. These Articles define smart working, contract forms, and workers' and employers' rights. For instance, it recognizes continuous learning and the certification of worker skills as a right. Moreover, it shows the key role of control and disciplinary power (Art.21), safety (Art. 22), and accident insurance and occupational disease insurance (Art.23). To reveal how to take advantage of the benefits offered by this Law, some fundamental articles are described.

First, Article 18, Law No.81/2017, establishes the agreement form: *"The provisions of this chapter, to increase competitiveness and facilitate the reconciliation of life and work times, promote smart working as a mode of execution of the subordinate employment relationship established by agreement between the parties, also with forms of organization by phases, cycles and objectives and without precise time or place of work constraints, with the possible use of technological tools for carrying out the work activity. The work is performed, partly inside company premises and partly outside without a predetermined workplace, within limits daily and weekly, deriving from the law and collective bargaining agreement."* According to this paragraph, smart working execution must be established through a written agreement for administrative and legal regularity; however, until November 2017, companies that signed individual smart working agreements did not know how to regularize the worker who operated in places other than the company. After completing INAIL Circular No.48/2017, the agreement must be sent through the specific IT platform available on the website of the Ministry of Labor and Social Policies "www.lavoro.gov.it." The agreement communication includes the information of the employer and the worker, including the typology of an employment relationship, INAIL insurance, signing date, and contract period as required by Article 19, Law No.81/2017. As specified by INAIL Circular No.48/2017, the information contained in the agreement will be sent to INPS as part of the application cooperation agreement with the Ministry of Labor and Social Policies concerning the transfer of data contained in the aforementioned communications.

The smart working agreement must be entered into in writing and has the objective of regularizing the work for administrative purposes. It describes the work performed outside the workplace, the managerial power of the employer, and the job tools. The necessary measures are also identified to allow the worker to pause from the use of technological working tools.

According to Article 19, Law 81/2017, the contract can be limited or permanent. If it is a permanent contract, the withdrawal can be requested with a minimum notice of 30 days. As referred to in Article 1, Law 68/1999, in the case of disabled workers, the withdrawal deadline must take place by the employer in no less than 90 days to guarantee adequate work and private reorganization for the worker. The contractors can repeal the contract before the deadline in the case of a fixed-term or open-ended contract even without notice but in both cases, only in the presence of a justified reason.

If a company decides to hire many workers with a smart employment contract but all or some of these workers decide to withdraw from the agreement, the employer can resort to dismissal for an objective reason and justify it. According to Article 3, Law 604/1966, numerous cases of withdrawal from smart working contracts can cause serious consequences for the organization of work, leading to an objective and justified reason for dismissal.

Another fundamental regulation is Legislative Decree 66/2003, which is related to understanding and implementing smart working. It establishes that it is possible to carry out the services even in discontinuous hours, but they must not exceed the ordinary duration hours, including night hours.

As clearly expressed in Article 20, Law 81/2017, the implementation of work as a smart job guarantees workers the right to lifelong learning and periodic certification of the related skills. In addition, paragraph 1 also guarantees the right to the same economic and regulatory treatment no less than that applied for workers who work within the company.

Article 21, Law 81/2017, also regulates the employer's control over the worker's performance outside the workplace by respecting the provisions of Article 4, Law 300/1970, and subsequent amendments.

Finally, health and safety at work are specifically addressed by Article 22, Law 81/2017. Employers are required to deliver information to the worker and worker representative for safety. In the information prepared in writing, the general and specific risks related to the method of performing the working relationship must be reported to guarantee the health and safety of the worker. The worker must practice the preventive measures to avoid the risks connected with the execution of work outside the company. Due to Article 23, Law 81/2017, the worker has the right to protection against occupational diseases and accidents due to the risks associated with the work performed carried out outside the company premises. In addition, the worker also has the right to protection against accidents occurring during the usual round trip from the home to the one chosen workplace when the choice is due to the need of the worker to reconcile a work-life balance.

4. Methodology

The research highlighted some explorative case studies (Yin, 2018). They have been carried out in collaboration with Confindustria Veneto SIAV within the project "Rose n 'Blue organizations in the plural." The project aimed to spread an

organizational culture based on plurality and transparent communication. For this purpose, the project investigated the smart working model to favor an inclusive perspective. A sample of SMEs was investigated due to SMEs still having little use for this method of working. In particular, the organizational and technological SME contexts were analyzed.

A case study methodology was applied (Yin, 2018), which is recognized as a useful exploratory approach to explore and to explicate complex situations simply. Baxter and Jack (2010) stated: "While you are considering what your research question will be, you must also consider what the case is. This may sound simple, but determining what the case study is can be a challenge for scholars." We chose to investigate the "what" situation impacted by smart working (Baxter and Jack, 2010). Using a social constructionist paradigm, the SME context was explored to describe the current use of the smart working model according to the key smart working factors. The main stages of the longitudinal case study were:

- ✓ Sample selection
- ✓ Data collection
- ✓ Data analysis

Sample selection. A sample of 20 manufacturing and service SMEs of the Veneto Region, a business area known for its great productivity and innovation capacity, was selected (Brunetti et al., 2015). According to the Veneto Statistical Report, in 2019, the total number of Veneto companies was 430,000 (+8.4%), with positive results in terms of turnover and number of employees. This sample allowed for understanding the real implementation of smart working in these companies.

Data collection. Data were gathered through semi-structured interviews with SME managers in three steps. In this first meeting, managers were asked to participate in a research project on smart working. This step showed that 12 SMEs on a sample of 20 SMEs (i.e. 60%) were interested in participating to learn about this new organizational model and its regulations. In the second meeting, the main characteristics of smart working were described in detail. Finally, data were collected related to their initiatives of flexible working. To gather data, predefined forms were entered to facilitate summarizing and comparison. This form was developed according to a systematic literature review. This review aimed to identify (a) the variables of smart working and (b) the critical success factors of smart working design to develop a framework to assess the degree of smart working. To identify this information, the Web of Science, Scopus, and Google Scholar were used.

The process suggested by Tranfield et al. (2003) was followed. The summary of findings is reported in this section.

(a) First, the following variables were identified as the key variables to evaluate the implementation of smart working:

- ✓ Culture - Values, ideas, and principles shared by individuals of an organization (Hofstede, 1980).

- ✓ Structure - Activities and processes used to manage a company (Garengo and Bititci, 2007).
- ✓ Technology - Technical knowledge and ICT tools used to operate working activities (Garengo and Bititci, 2007).
- ✓ ICT - Information communication technology useful to operate and to manage a company (e.g., software, hardware) (Garengo and Biazzo, 2013).
- ✓ Leadership - Ability to motivate people to achieve a common goal (Schein, 1996; Garengo and Bititci, 2007; Otley, 2016)

(b) Second, the critical success factors of a smart working design were identified:

- ✓ Workplace - Areas (formal and informal) where the company's employees work (Cañibano, 2019).
- ✓ Worktime - Working hours (Colber et al., 2016).
- ✓ Performance measurement - Systems that collect, analyze, and report organizational data. They give feedback on individual and organizational actions. For instance, they have characteristics such as connected and real-time multi-feedback measures, easy and accessible measures, and measures focused on the development of human resources (Bititci, 2015; Bititci et al., 2012; Sardi et al., 2018)
- ✓ Performance management - Practices that favor performance communication and sharing. For instance, they have characteristics such as continuous sharing of knowledge, open environments useful for learning, and transparent and open communication systems (Bititci, 2015; Bititci et al., 2012; Sardi et al., 2018; Sardi and Sorano, 2019; Smith and Bititci, 2017).

Data analysis. Data were analyzed through the “categorical aggregation technique” that allows for aggregating elements and analyzing them as a group. As suggested by Yin (2018), data were represented by the aggregation graph and discussed according to the main literature evidence. The key variables were analyzed according to conceptual frameworks proposed by Hofstede (1980) for culture and Garengo and Bititci (2007) for technology. Consequently, the critical success factors of the smart working design were analyzed.

5. Results

The research showed that 60% of the companies contacted were interested in smart working. The findings describe the evaluation of the key variables and the critical success factors (Figure 1) in the companies interested in smart working.

Below, this section describes the evaluation of the following variables: culture, structure, technology, information technology and management style.

Culture - The small and medium enterprises analyzed outline a power culture based on the central control of the entrepreneur/s. These enterprises are mainly family-owned-business, where the concentration of power stays with enterpriser or a few directors. It is focused to gain the company's' strategic goals through carrying out work in company building.

Structure - They presented limited bureaucracy and procedures because the owner makes decisions that change rapidly in an autocratic way. These companies were results-oriented and preferred people with autonomy and fast decision-making capacity. The enterprises were traditional family small and medium enterprises, where the capital was held by shareholders belonging to the same family.

Technology - These organizations had high technical knowledge and showed high investments in information technology tools for operating working activities; however, employees had a different degree of information technology skills according to various job-positions and ages.

Management style - The small and medium enterprises analyzed highlight an authoritative management style. This style did not encourage the implementation of smart working in the organization. This style limits the capability of decision making action outside the headquarter. The practices adopted by entrepreneur/s and directors in decision making, management of information, relationships, motivation and managing subordinates influences the level of delegation, the approach and time required to make decisions and the control of activities.

To summarize, these findings related to the evaluation of the main variables linked to the implementation of smart working show the uniformity of the study sample. They highlight traditional small and medium enterprises, a power culture, high investments in information technology tools for operating working activities, and different types of information technology knowledge.

Below this section describes the evaluation of the following critical success factors of smart working design: workplace, worktime, performance measurement and performance management (Figure 1).

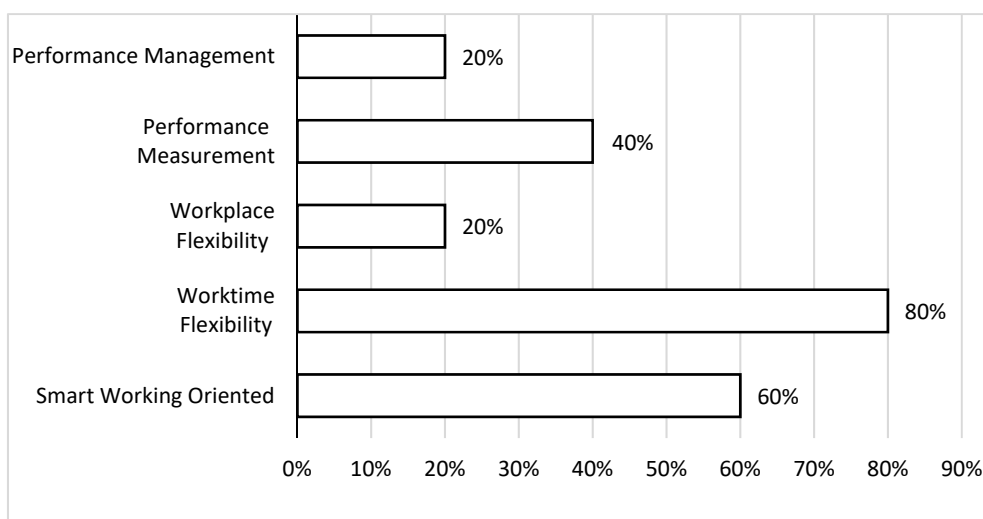
Workplace - 20% of the companies investigated used workplace flexibility. Usually, the entrepreneurs preferred the way of working in the presence. They give this opportunity in special issues linked to the family, health and welfare. The use of Workplace flexibility rarely meets the needs of the business strategy.

Worktime - 80% of the companies investigated adopted initiatives of work flexibility regarding the time of entry and exit from the company. The worktime flexibility allowed employees the change to make their own choices as to where, when and how they engage in work related to their tasks and projects.

Performance measurement - 40% of the companies investigated adopted performance measurement activities such as gathering, analysing and visualizing performance. In particular, 40% of these enterprises used information technology, such as business intelligence and management software, to support performance measurement. This technology allows controlling the main operational performance information in real-time to everywhere.

Performance management - 20% of the companies investigated had performance management practices such as communicating, learning and improving performance. These practices supported the company's people in the performance management process mainly enabling and structuring internal and external communication between personnel involved in the process of target setting. Sometimes, this performance information supported the employees' learning.

Fig. 1 Evaluation of critical success factors



Source: our elaboration

To summarize, these findings related to the evaluation of the main critical success factors linked to the implementation of smart working describe a poor use of performance measurement and management practices, even though some enterprises highlight a virtuous adoption of this performance information. Furthermore, the results sharpen a scarce use of workplace flexibility, but a marked use of worktime flexibility.

SMEs performed the implementation of initiatives related to smart working. These initiatives were based on informal agreements between the employer and the employee. For example, according to Olivieri Pennesi (2014), initiatives allowed some employees greater flexibility of workplace and worktime, being able to work even outside the company headquarters. These initiatives were adopted for some employees who worked for objectives or projects or moved for personal reasons but had a key role in the company or serious impossibilities in reaching the workplace.

6. Discussion

The evolution of corporate organizational models is leading to (re)thinking the work in the current business context (Colbert et al., 2016; Dery et al., 2017; Ferrazzi, 2014; Li and Herd, 2017). The research showed that 60% of the companies contacted

were interested in smart working; however, organizations still poorly apply this legislation and this model as suggested to recent literature (Olivieri & Pennesi, 2014; Torre, 2015; Torre, 2016; Torre, 2020).

The enterprises analyzed highlighted a power culture based on the central control of the entrepreneurs or directors, a fast decision-making process based on results-oriented and recent information technology tools. These typical aspects of small and medium enterprises impacted the level of smart working implementation. As address to literature (Ates et al., 2013; Garengo, 2009; Jardioui et al., 2020; Manville et al., 2019), on the one hand, these aspects push the operational processes of SMEs toward efficiency and innovation, on the other hand, these aspects stop new managerial and strategical processes.

Despite this, 80% of the companies investigated already adopted initiatives of work flexibility regarding the time of entry and exit from the company, whilst only 20% used workplace flexibility. Although they hold information technology tools for operating working activities, these tools were rarely utilized for performance measurement and management. This poor use of this information technology tools in small and medium enterprises confirm the trend shown recently to Sardi et al. (2020a,b) which highlighted the several constraints obstruct performance measurement and management in this typology of company (Bourne et al., 2018; Garengo and Sharma, 2014). Small and medium enterprises often lack the availability of human capital, managerial skills and capital resources (Sardi et al., 2020b,c). Their employees are engaged in technical and operational processes rather than in managerial and strategical activities (Sardi et al., 2020b).

The performance measurement and management system of the companies analyzed did not sufficiently allow for managing work through a democratic and remote approach. Forty per cent of companies used these tools to measure the main key performance indicators, whereas few enterprises adopted them for management and communicate performance even if the companies had the digital technologies necessary for the effective performance of smart working. Although the availability of these technologies is a necessary condition to allow people to complete work outside the company (Avgoustaki & Bessa, 2019; Cañibano, 2019; Sardi et al., 2020b), the capacity and their use remain exclusive to a select few. This poor use of technology made it difficult to work outside the company. However, the enterprises analyzed performed the implementation of initiatives related to smart working. These initiatives were based on informal agreements between the employer and the employee. For example, according to Olivieri & Pennesi (2014), initiatives allowed some employees greater flexibility of workplace and worktime, being able to work even outside the company headquarters. These initiatives were adopted for some employees who worked for objectives or projects or moved for personal reasons but had a key role in the company or serious impossibilities in reaching the workplace.

According to this consideration, this type of company should (re)think about the organization of work, knowledge management and technical support to develop efficient smart working (Vaggelas & Leotta, 2019).

In this scenario, human capital is a variable that should not be underestimated in favoring the digital transformation process in which digital skills (Prezioso et al., 2020; Parola et al., 2019) are considered an indispensable pillar that positively affects company performance (Cristofaro et al., 2020). In other words, companies are also required to have organizational resilience (Palumbo & Manna, 2019), that is, the ability to recognize the changing demands of the external context and, at the same time, to predict environmental dynamics. In the future, smart working will be used more often as a solution to improve the balance between professional and private life and to cope with emergencies, health (Covid-19), social, environmental and economic as emergencies are often considered points of break-in social life, but they also accelerate innovative solutions in experimentation, providing significant opportunities for work reorganization and giving impetus to the spread of new forms of work such as smart working (Torre, 2020) through a mix of structural and behavioral interventions.

7. Conclusion

The evolution of corporate organizational models is leading to (re)thinking the work in the current business context; however, the SMEs' activities are not enough to improve their work organization, although the European Union is widely favouring the innovative work approach, such as smart working, and the literature demonstrates the increase in productivity and the improvement of the work-life balance.

In this context, the implementation of smart working in a sample of Veneto SMEs was investigated.

Smart working is considered an organizational model for a better work-life balance, and 56% of Italian large companies have adopted this model. The situation is still very different for small and medium-sized enterprises. SMEs do not sufficiently adopt this model. The research shows that SMEs implement smart working initiatives through informal agreements between the employer and employees. It is applied to solve specific situations without detailed planning; however, SMEs show a strong interest in legislative compliance for employees who already use this form of work.

Research implications of this research suggest how the findings can be important for theory and practice subsequent research.

The theoretical implications of this research describe the degree of smart working implementation in a sample of SMEs. In particular, it highlights the difficulty of implementing smart working in these enterprises. Although there are already initiatives related to flexible work based on informal activities, the study illustrates a poor implementation of smart working in small and medium enterprises. Through this research, researchers have available a conceptual framework (variables identified and critical success factors) able to support the evaluation of the degree of smart working implementation. Furthermore, researches may adopt this framework in other companies to develop other studies or understand the weaknesses and seek improvement solutions for applying smart working.

The managerial implications of this research indicate that companies should follow the main critical success factors identified to design effective smart working. Before designing this model, companies must evaluate the organizational variable to better understand their specific contexts.

As with all research, this study has two main limitations. Firstly, although the systematic literature review followed rigorously process suggested by Tranfield et al. (2003), it may lack some explanations about the variables and the critical success factors of smart working useful to assess the degree of smart working implementation. However, it reported the main references for each variable and critical success factors for further insights. Secondly, the results obtained cannot represent the entire group of small and medium enterprises because few companies were explored. Although these weaknesses of the research limit the generalizability of the results, it allows to explorer this unexplored field. Furthermore, it provides a first representation of how small and medium enterprises implement smart working and which key variables are useful to design and to adopt efficient and effective smart working.

Acknowledgment. We are grateful to Regione Veneto and Confindustria Veneto SIAV for this excellent research opportunity. We also thank all company directors and managers for their comments, suggestions, and active participation in this research. Our gratitude also goes to Dr. Gabriella Bettiol, Dr. Elisabetta De Cecchi, Prof. Giovanni Bernardi, and the Confindustria Veneto SIAV staff.

Research funding. Regione Veneto DGR 254/2016 Pari Opportunità Nel Lavoro Che Cambia - Investiamo Nell'occupazione Femminile - Project title: ROSE 'N' BLUE ORGANIZZAZIONI AL PLURALE - Codice: 1075-1-254-2016 - Coordinating Institution: Confindustria Veneto Siav Spa - Partner Institution: Università degli Studi di Padova - Department of Industrial Engineering - Scholarship N.2017DII097.

References

- Abubakar, A.M., Elrehail, H., Alatailat, M.A. & Elçi, A. (2019). Knowledge management, decision-making style and organizational performance. *Journal of Innovation and Knowledge*, 4(2), 104–114.
- Alter, S. (2019). Making sense of smart living, working, and organizing enhanced by supposedly smart objects and systems. *IFIP Advances in Information and Communication Technology*.
- Andrushevich, A., Biallas, M., Kistler, R., Eusebi, L., Ronai, J. & Valla, M. (2017). Towards smart working spaces with enhanced well-being and safety of elderly staff. *GloTS 2017 - Global Internet of Things Summit, Proceedings*.
- Avgoustaki, A., & Bessa, I. (2019). Examining the link between flexible working arrangement bundles and employee work effort. *Human Resource Management*, 58(4), 431–449.

- Barbier J.C., & Nadel H. (2002). *La flessibilità del lavoro e dell'occupazione*. Donzelli, Roma.
- Baxter, P., & Jack, S. (2010). Qualitative Case Study Methodology : Study Design and Implementation for Novice Researchers, *The Qualitative Report*, 13(4), 544–559.
- Bednar, P.M., & Welch, C. (2019a). Socio-Technical Perspectives on Smart Working: Creating Meaningful and Sustainable Systems. *Information Systems Frontiers*, 22, 281-298.
- Bednar, P.M., & Welch, C. (2019b). Balancing stakeholder interests: Socio-technical perspectives on smart working practice. *IFIP Advances in Information and Communication Technology*.
- Bititci, U.S. (2015). *Managing Business Performance: The Science and the Art*, Managing Business Performance: The Science and the Art. Wiley Blackwell, Edinburgh, U.K.
- Bititci, U.S., Garengo, P., Dörfler, V., & Nudurupati, S. (2012). Performance Measurement: Challenges for Tomorrow. *International Journal of Management Reviews*, 14(3), 305–327.
- Bresciani, S., Ferraris, A., & Del Giudice, M. (2018). The management of organizational ambidexterity through alliances in a new context of analysis: Internet of Things (IoT) smart city projects. *Technological Forecasting and Social Change*, 136, 331–338.
- Brunetti, G., Bernardi, G., & Bettiol, G. (2015). *Narrare l'innovazione*. Marsilio, Venezia.
- Burdin, G. & Pérotin, V. (2019). Employee representation and flexible working time. *Labour Economics*, 61, 101755.
- Burkley, L.A. (1976). *Geochronology of the Central Andes*, Venezuela. Doctoral Thesis. Cheveland (Ohio), Case Western Reserve University, 159pp.
- Cañibano, A. (2019). Workplace flexibility as a paradoxical phenomenon: Exploring employee experiences. *Human Relations*, 72 (2), 444–470.
- Carlile, P. R. (2002). *A pragmatic view of knowledge and boundaries: Boundary objects in new product development*. *Organization science*, 13(4), 442-455.
- Carlson, D.S., Upton, N., & Seaman, S. (2006). The impact of human resource practices and compensation design on performance: An analysis of family-owned SMEs. *Journal of Small Business Management*, 44 (4), 531–543.
- Chiaro, G., Prati, G., & Zocca, M. (2015). *Smart working: dal lavoro flessibile al lavoro agile*. Sociologia del lavoro.
- Colbert A., Yee N., & George G., (2016). *The digital workforce and the workplace of the future*. *Academy of Management Journal*, 59(3), 731-739.
- D'Amato V. (2014). *Management 3.0. Il manifesto e le nuove competenze per un manager*. FrancoAngeli, Milano.
- Decastri, M., Gagliarducci, F., Previtali, P., & Scarozza, D. (2020), Understanding the use of smart working in public administration: The experience of the presidency of the council of ministers, *Lecture Notes in Information Systems and Organisation*, 33, 343–363.
- Decreto Legislativo 8 aprile 2003, n. 66. *Attuazione delle direttive 93/104/CE e 2000/34/CE concernenti taluni aspetti dell'organizzazione dell'orario di lavoro*. Available at: <https://www.camera.it/parlam/leggi/deleghe/03066dl.htm>

- Dery K., Ina S.M., & van der Meulen N. (2017). *The Digital Workplace Is Key to Digital Innovation*. *MIS Quarterly Executive*: 16(2), 135-152.
- Dyer, J. H., & Nobeoka, K. (2000). *Creating and managing a high-performance knowledge-sharing network: the Toyota case*. *Strategic management journal*, 21(3), 345-367.
- Errichiello, L., & Pianese, T. (2019). Toward a theory on workplaces for smart workers. *Facilities*, 38(3-4), 298-315.
- Ferrazzi K., (2014). *How virtual teams can create human connections despite distance*. Harvard Business Review.
- Fleetwood, S. (2007). Why work-life balance now?. *International Journal of Human Resource Management*, 18(3), 387-400.
- Garengo, P., & Panizzolo, R. (2013). Supplier involvement in integrated product development: Evidence from a group of Italian SMEs. *Production Planning and Control*, 24(2-3), 158-171.
- Garengo, P., & Biazzo, S. (2013). From ISO quality standards to an integrated management system: an implementation process in SME. *Total Quality Management and Business Excellence*, 24(3), 310-335.
- Garengo, P., & Bititci, U.S. (2007). Towards a contingency approach to performance measurement: An empirical study in Scottish SMEs. *International Journal of Operations and Production Management*, 27(8), 802-825.
- Gold, A. H., Malhotra, A., & Segars, A. H. (2001). *Knowledge management: An organizational capabilities perspective*. *Journal of management information systems*, 18(1), 185-214.
- Hofstede, G. (1980). *Culture's Consequences*, Sage, Beverly Hill, CA.
- Hörning, K. H., Gerhardt, A., & Michailow, M. (2018). *Time pioneers: Flexible working time and new lifestyles*. John Wiley & Sons.
- Iapichino, A., De Rosa, A., & Liberace, P. (2018). *Smart Organizations, New Skills, and Smart Working to Manage Companies' Digital Transformation*. In *Digitized Labor* (215-227). Palgrave Macmillan, Cham.
- Inail 2 novembre 2017, n. 48. *Lavoro agile. Legge 22 maggio 2017, n. 81, articoli 18-23. Obbligo assicurativo e classificazione tariffaria, retribuzione imponibile, tutela assicurativa, tutela della salute e sicurezza dei lavoratori. Istruzioni operative*. Available at: <https://www.inail.it/cs/internet/atti-e-documenti/note-provvedimenti/circolari/circolare-n-48-del-2-novembre-2017.html>
- Kelliher, C., & Anderson, D. (2008). For better or for worse? An analysis of how flexible working practices influence employees' perceptions of job quality. *International Journal of Human Resource Management*, 19(3), 419-431.
- Kotey, B. A. (2017). Flexible working arrangements and strategic positions in SMEs. *Personnel Review*, 46(2), 355-370.
- Lee, J. (2014). Cross-disciplinary knowledge: Desperate call from business enterprises in coming smart working era. *Technological and Economic Development of Economy*, 19, S285-S303.
- Legge 12 marzo 1999, n. 68. *Norme per il diritto al lavoro dei disabili*. Available at: <http://www.parlamento.it/parlam/leggi/99068l.htm>

- Legge 15 luglio 1966, n. 604. *Norme sui licenziamenti individuali*. Available at: https://www.cliclavoro.gov.it/Normative/Legge_15_luglio_1966_n.604.pdf
- Legge 20 maggio 1970, n. 300. *Norme sulla tutela della libertà e dignità dei lavoratori, della libertà sindacale e dell'attività sindacale nei luoghi di lavoro e norme sul collocamento*. Available at: <http://www.di-elle.it/leggi-voce-menu/117-l-300-70-statuto-dei-diritti-dei-lavoratori>
- Legge 22 maggio 2017, n. 81. *Misure per la tutela del lavoro autonomo non imprenditoriale e misure volte a favorire l'articolazione flessibile nei tempi e nei luoghi del lavoro subordinato*. Available at: <https://www.gazzettaufficiale.it/eli/id/2017/06/13/17G00096/sg>
- Lewis, S., & Humbert, L. (2010). Discourse or reality?: 'Work-life balance', flexible working policies and the gendered organization. *Equality, Diversity and Inclusion: An International Journal*, 29 (3), 239-254.
- Li J., & Herd A.M., (2017). Shifting Practices in Digital Workplace Learning: An Integrated Approach to Learning, Knowledge Management, and Knowledge Sharing. *Human Resource Development International*, 20(3), 185-193.
- Mattalucci, L. (2014). *Il crescente interesse per il tema dello "smart working"*. Available at: www.marcoarelio.comune.roma.it.
- Møller, J., & Skaaning, S. E. (2017). *Explanatory typologies as a nested strategy of inquiry: Combining cross-case and within-case analyses*. *Sociological Methods & Research*, 46(4), 1018-1048.
- Neri, M., Bonato, R., Zappalà, S., Torre, T., Scapolan, A., Mizzau, L., ... & Masino, G. (2017). *Smart working: una prospettiva critica*, Available at: amsacta.unibo.it/5717/1/SmartWorking.pdf.
- North K., Maier R., & Haas O. (2018), *Knowledge Management in Digital Change: New Findings and Practical Cases*, Springer International Publishing, Cham.
- Olivieri Pennesi S. (2014). *Dove (è) il lavoro*. Saggi su aspetti socio-economici. Aracne, Ariccia (RM).
- Orlikowski, W.J., and S.V. Scott. (2008). Sociomateriality: Challenging the Separation of Technology, Work and Organization. *Academy of Management Annals*, 2, 433-474.
- Otley, D.T. (2016). The contingency theory of management accounting and control: 1980-2014. *Management Accounting Research*, 31 (1), 45-62.
- Panizzolo, R., Biazzo, S., & Garengo, P. (2010). New product development assessment: Towards a normative-contingent audit. *Benchmarking: An International Journal*, 17(2), 173-194.
- Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D'Este, P., Fini, R., et al. (2013). Academic engagement and commercialisation: A review of the literature on university-industry relations, *Research Policy*, 42 (2), 423-442.
- Podgórski, D., Majchrzycka, K., Dąbrowska, A., Gralewicz, G. & Okrasa, M. (2017). Towards a conceptual framework of OSH risk management in smart working environments based on smart PPE, ambient intelligence and the Internet of Things technologies, *International Journal of Occupational Safety and Ergonomics*, 23 (1), 1-20.

- Rapporto Statistico Regione Veneto, (2019). *Il Veneto si racconta, il Veneto si confronta*, Biblos s.r.l., Regione del Veneto.
- Sardi, A. & Garengo, P. (2015). "Performance Management in Innovative SMEs: The Key Role of the Social Media", 18th Toulon-Verona Conference "Excellence in Services", 509-526.
- Sardi, A., Garengo, P., & Bititci, U.S. (2018). Measurement and management of competences by enterprise social networking, *International Journal of Productivity and Performance Management*, 68 (1), 109-126.
- Sardi, A., & Sorano, E. (2019). *Dynamic Performance Management: An Approach for Managing the Common Goods, Sustainability*, 11, 6435.
- Schein, E.H. (1996). Culture: The Missing Concept in Organization Studies. *Administrative Science Quarterly*, 41 (2), 229-240.
- Shanmugam, M.M., & Agarwal, B. (2019). Support perceptions, flexible work options and career outcomes: A study of working women at the threshold of motherhood in India, *Gender in Management*, 34 (4), 254-286.
- Smith, M., & Bititci, U.S. (2017). Interplay between performance measurement and management, employee engagement and performance. *International Journal of Operations and Production Management*, 37(9), 1207-1228.
- Spender, J. C. (1996). Organizational knowledge, learning and memory: three concepts in search of a theory. *Journal of organizational change management*.
- Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: SAGE Publications.
- Tagliaro, C. & Ciaramella, A. (2016). Experiencing smart working: a case study on workplace change management in Italy. *Journal of Corporate Real Estate*, 18(3), 194-208.
- Torre, T. (2015). Tutto è smart... anche il lavoro. *Impresa Progetto*, 3, 1-10.
- Torre, T. (2016). Connessi o non connessi? that is the question... *Impresa Progetto*, 3, 1-11.
- Torre, T. (2020). Smart working: soluzione ad ogni emergenza? Prospettive oltre l'emergenza, *Impresa Progetto* 1, 1-11.
- Torre, T., & Sarti, D. (2020). Innovative Approaches to Work Organization and New Technologies. First Insight from the Italian Context. *Lecture Notes in Information Systems and Organisation*, 35, 133-145.
- Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review, *British Journal of Management*, 14(3), 207-222.
- Van Der Voordt, T.J.M. (2004). Productivity and employee satisfaction in flexible workplaces. *Journal of Corporate Real Estate*, 6 (2), 133-148.
- Wasko, M. M., & Faraj, S. (2005). Why should I share? Examining social capital and knowledge contribution in electronic networks of practice. *MIS Quarterly*, 29(1), 35-57.
- Wilkinson, K., Tomlinson, J., & Gardiner, J. (2018). The perceived fairness of work-life balance policies: A UK case study of solo-living managers and professionals without children. *Human Resource Management Journal*, 28 (2), 325-339.

- Wu, Ing-Long, & Chen, Jian-Liang, (2014). Knowledge management driven firm performance: the roles of business process capabilities and organizational learning. *Journal of Knowledge Management*, 18 (6), 1141-1164.
- Yin, R. (2018). *Case Study Research: Design and Methods*. 6th ed., Sage, Los Angeles, CA.