

ALL THAT GLITTERS IS NOT GOLD. EXPLORING VIRTUAL TEAM ADOPTION IN THE COVID-19 ERA

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ABSTRACT

The lockdown triggered by the Covid-19 pandemic forced organizations to cope with relevant economic costs. Alongside generating substantial financial burdens, the pandemic fostered the adoption of new routines and technologies to dynamically respond to these threats by making use of all possible organizational resources to survive the crisis and its consequences on organizational processes. By adopting Virtual Teams (VTs), SMEs leverage digital technologies (DTs) to promote human resource capital and enhance organizational resilience, increasing their ability to overcome current challenges pivoting on the human-machine binomial. The study adopts an in-depth qualitative approach. A combination of data and interviews of n.9 senior managers from three different SMEs operating in Campania, Southern Italy, was accomplished. Research findings offer various suggestions for a balanced implementation of VT innovation among SMEs. Firstly, it is still unclear whether the forced VT adoption in such a limited timeline has affected or not both VT performance and members' personal spheres. Secondly, constructs that emerged from this study can nourish the debate on VT, by querying the literature to confirm or disconfirm them for an empirical assessment. This contribution has emphasized the lack of studies on the impact of VTs in crisis contexts. It configures itself as a checkpoint from starting a future research agenda development.

KEYWORDS: Virtual Team, Organizations, Covid-19, Remote Working, SME

JEL CLASSIFICATION: M10; M12; M19; O15; O33

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INTRODUCTION

Organizations went through major changes in the way they operate. The need for acting in an increasingly complex and globalized environment spread dramatically due to the advent of digitization. The digital turn allowed firms to internationalize and recontextualize their actions in a boundaryless scenario (Hannibal & Knight, 2018; Cassetta et al., 2020), where competitive advantage derives from the organizational capability to innovate products, services, and processes (Juergensen et al., 2020). This is especially true for Small and Medium-Sized Enterprises (SMEs), which should learn to thrive in a globalized environment (Dvorský, et al., 2021).

Digitization triggers structural and behavioral changes which are required to take advantage of Information and Communication Technologies (ICTs) and digital tools to sustain organizational performance (Westerman *et al.*, 2011). The application of digital technologies to industry – namely,

Industry 4.0 (van Tulder et al. 2018) – has been addressed as an opportunity to foster a revitalization of companies (Bellandi et al. 2019). It is enacted through the introduction of advanced human resource management practices and working methodologies (Wageman et al., 2012), such as Virtual Teams (VTs). VTs "...consist of (a) two or more persons who (b) collaborate interactively to achieve common goals, while (c) at least one of the team members works at a different location, organization, or at a different time so that (d) communication and coordination is predominantly based on electronic communication media" (Hertel et al., 2005, p.71) Different motivations urge firms to implement VTs. Firstly, the quest for innovation heralded by the volatility of the external environment makes VTs the right solution to manage internal operations (Rachinger et al., 2019). Secondly, VTs permit to overcome the boundaries that are faced by traditional teams, such as spatial, temporal, functional, organizational, and cultural hindrances. Thirdly, they enable adaptability, flexibility, and responsiveness to critical competitive challenges (Bell & Kozlowski, 2012).

The backlash of the Covid-19 pandemic boosted the digital transition of organizations, forcing a large part of companies to recontextualize their activities in the cyber-physical environment. From this standpoint, the pandemic favoured the adoption of new routines and technologies "to conduct collaborative tasks when team members work from home" (Grözinger et al., 2020, p. 201). Even though literature found a positive association between remote working and organizational dynamics, workplace may suffer from remotization of work (Bloom et al., 2015; Palumbo, 2020a; 2020b). Organizations should address these challenges, embedding remote workers in proper work arrangements which makes them involved in organizational dynamics.

The article intends to contribute to the scientific debate (Krumm et al., 2017; Romeike et al., 2016) about the use of VTs as a method to facilitate the digital reconfiguration of SMEs. More specifically, it aims to investigate VTs as effective digital working arrangements for SMEs to deal with unprecedented organizational challenges.

This paper is structured as follow: in the first chapter the theoretical framework of VT as a tool for organisational change is presented; the second chapter illustrates the qualitative methodology employed to investigate the phenomenon by adopting a field study approach; the third chapter shows the results of the interviews that were discussed and compared in the fourth one; conclusions will outline future research perspectives.

1 VIRTUAL TEAM: AN OVERVIEW OF THE LITERATURE

1.1 Definition

A VT is a group of geographically displaced people, who may belong to the same organization or to different companies, cooperating to achieve common goals by using technologies to support work, communication, and coordination (Metallo, 2007). VTs allows organizations to overcome the spatio-temporal limitations that affect traditional teams (Maznevski and Distefano, 2000). Gaudes et al. (2007) found that people involved in VT are likely to work interdependently and share outcomes and responsibilities using virtual technology to plan and coordinate their activities. In general, a VT is a union of co-workers deriving from several "...organizational departments or business units who uses advanced information and communication technology to achieve a common purpose or goal" (Pangil & Chan, 2014, p.94).

1.2 The pros & cons of VT

VTs pave the way for several advantages. Firstly, they allow to overcome physical costs typical of face-to-face meetings, removing space-time constraints. The employees' time and fatigue to reach the workplace is also reduced, allowing an increased work-life balance. Moreover, companies may benefit

from an increase of efficiency and effectiveness triggered by the opportunity to involve in VTs the best people available in the organization, regardless of their physical location (Alsharo et al., 2017).

However, VTs carry several disadvantages, which are usually underestimated. The geographical distance of participants may generate various problems in terms of socialization and interpersonal relationships. According to Hoegl et al. (2007), collaboration and teamwork are indirectly related to distance: the more it increases, the more relations are weak. Another disadvantage is communication: without adequate infrastructures and training, information exchange is impaired in VTs (Chen et al., 2006). VTs may also engender an erosion of trust amongst employees. Finally, yet importantly, insufficient context signals, feedback delay, long interruptions and pauses in communication may further imperil the VTs' effectiveness (Hertel et al., 2005).

1.3 A taxonomy of VTs

Companies should select the VT approach which is fitting with their needs, characteristics, and size. More precisely, scholars define four major VTs:

- Extreme action team: they deal with many tasks simultaneously, addressing unprecedented challenges. The team composition is unstable and, therefore, its members must be able to engage newcomers (Klein & Ziegert, 2006);
- Self-managed VTs: they are autonomous, and members are allowed to manage and supervise their own work (Metallo, 2007);
- Project groups: they usually operate in an *Open-Source* environment; team members rarely meet face-to-face; activities are coordinated through Computer Mediated Communication (CMC) mechanisms (Crowstone et al., 2010);
- Team science: they are used by scientific collaboration groups, enacting a collaboration of people coming from different scientific backgrounds to share knowledge and information (You-Na et al., 2016).

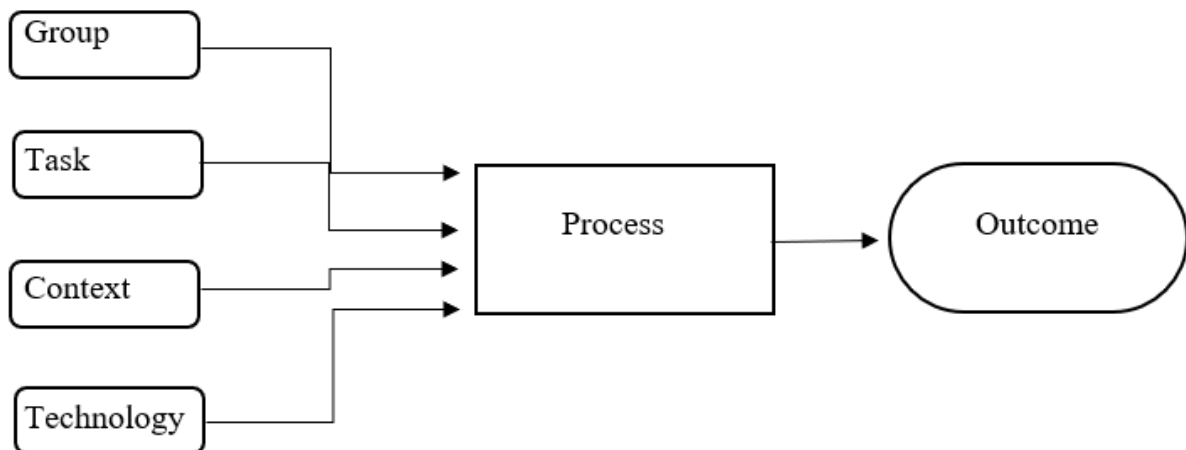
1.4 Measuring VT implications

Different approaches have been proposed to measure VTs' performance. Among others, Kirkman et al. (2004, p. 177) propose a "Contingency Model of Virtual Team Performance", based on the idea that "...team empowerment may be more important to the performance of virtual teams than it is to the performance of collocated teams because of the unique nature of virtual team tasks". Potter & Balthazard (2002, p. 427), tried to measure VT performances assessing group interaction styles, stating that "...the interaction style of virtual teams will predict objective measures of team performance". Mathieu et al. (2008), identified three levels of performance measure: (1) organizational-level performance, (2) team performance behaviour and outcomes, (3) role-based performance. Later, Algesheimer et al (2011) expanded these levels, including: team size; tenure; heterogeneity; past performance; intra-team communication; team cohesion; positive/negative anticipated emotions; shared desire/goals; we-intentions to perform; and expected/actual performance. Other attempts were accomplished by Peters & Karren (2009) and by Joel and Linda Olson (2012), who stressed the role of trust and functional diversity and of task sequences, respectively.

However, these approaches are not designed to measure VT performance in critical and unprecedented situation. Environmental complexity and uncertainty do not allow to limit the assessment of VTs' performance to a single batch of measures. This gap is especially relevant nowadays, considering the challenges generated by the Covid-19. A qualitative, systemic, and exploratory approach to analyse VT performance may be the best solution to achieve a better understanding of VTs' activities during period of crisis. As graphically depicted in Figure 1, a comprehensive analysis of VTs' performance should rely on four main domains (Lurey & Raisinghani, 2001):

- (1) Group: members, relations, and skills.
- (2) Tasks to be performed within the VT.
- (3) Context in which VT acts.
- (4) Technology used to perform the task.

Figure 1 Meta-level research model



(Source: Lurey & Raisinghani, 2001, p.3)

2 METHODOLOGY

2.1 The study design

An *ad-hoc* research protocol was designed for the purpose of this study. A case study approach was used, involving an empirical investigation intended to investigate contemporary phenomena in a real-life context (Barratt et al., 2011). To enhance the reliability and the dependability of this research, the authors decided to undertake a comparative case study method, investigating three different SMEs which adopted VT between March, 2020 and May, 2020 (the first lockdown period in Italy). The main aim of the analysis was to evaluate the companies' performance and to identify indicators to measure implications in future studies.

The use of an explorative methodology over a structured measurement of a given phenomenon was justified by three reasons:

- (1) *The research objectives focus on understanding experiences, opinions, attitudes, values, and processes;*
- (2) *There is insufficient knowledge about the subject to draft an effective questionnaire;*
- (3) *The potential interviewees might be more receptive to an interview than other data gathering approaches* (Rowley, 2012, p.262)

Qualitative and semi-structured interviews were conducted in the units of analysis. This was the most suitable method since it allowed us to ask questions directly and freely to the organization members. To draft the case-study analysis, Gioia's qualitative approach model in organizational studies (Gioia & Chittipeddi, 1991; Gioia et al., 2013) was used. Based on Grounded theory (Corley & Gioia, 2011) and

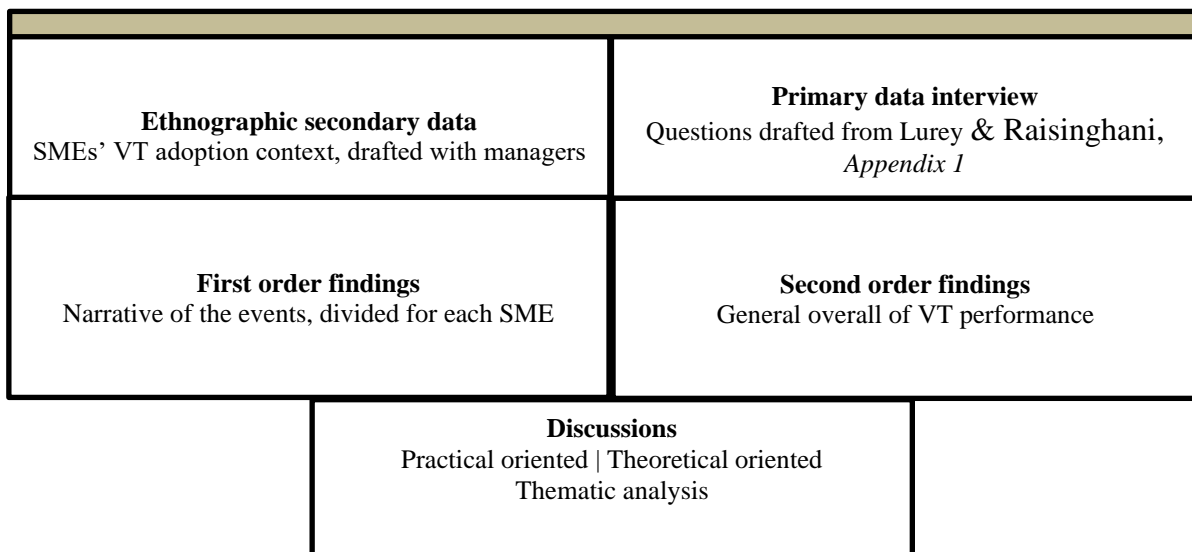
interpretivism, it corroborates the idea that human understanding and actions are based on personal interpretation of reality and events through individual experience (Rabinow and Sullivan, 1979). Case-study analysis has been outlined in Fig.2, and consists of a few main steps:

1) Primary and secondary data analysis: the analysis involves a combination of ethnographic data analysis (context, actors, tools, and relationships) and qualitative interviews. As Zammuner (1998) suggests, interviews can be carried out both remotely and face-to-face. This also applies to VTs. In this circumstance, sticking to social distancing norms dictated by the COVID-19 pandemic, 9 managers from the three case companies have been interviewed remotely. Each interview lasted half an hour, was verbatim transcribed and then analyzed. By following Lurey & Raisinghani (2001), eight questions were elaborated and associated to the conceptual dimensions investigated in this study.

2) First and second order findings analysis: primary findings present an exhaustive "photography" (Gehman et al., 2018, p.286) of VT impact among the various SMEs, through the voice of its managers; secondary findings synthesize them by presenting an overview of the general framework of VT.

3) Discussions of the results: discussions were conducted following thematic analysis (Braun and Clarke, 2008, Grbich, 1999) and divided into practical and theoretical implications, following van den Broek et al. (2018).

Figure 2 Qualitative interview methodology outline



(Source: Authors' elaboration, inspired by Gioia and Chittipeddi, 1991)

2.2 Analysis: ethnographic secondary data

Ethnographic and background data (Spradley, 1979), drafted in concert with the 9 interviewed managers, are useful to present the context in which SMEs are adopting VT: volatile, uncertain, and disruptive. The Covid-19 pandemic put the entire Italian economy under stress, forcing many SMEs to temporarily interrupt their activities. The three SMEs were identified through a purposive approach (Etikan, et al., 2016). The units of analysis, as synthesized in Tab.1, consist of three research subjects operating in different economic sectors and showing different organizational attributes. More specifically, the SMEs are involved in three different economic sectors: distribution (Center Group s.r.l.), manufacturing (Sip & T Group s.p.a.), and service (ITsvil s.r.l.).

Center Group s.r.l. is a leading SME for the distribution and commercialization of cars and commercial vehicles. Founded in 1977 in Castellammare di Stabia, today it is one of the main players in Campania and Italy in terms of size, volume, and turnover. The company has five sales outlets throughout the Campania region, including Salerno, Avellino, Casoria, and Pozzuoli. The organization is structured according to a functional model (Meijaard et al. 2005). It offers substantially standard products which differ only slightly (Rugiadini, 1979). Seven functional macro-areas concerning the organization of the Center Group can be identified, each of which acts distinctly, and it is further articulated into activities belonging to a specific operating sector. The functional areas are administration and finance, marketing management, sales management, customer relationship management, car rental, mechanical workshop, and supply warehouse.

Sip & T Group S.p.a. designs and sells telescopic rods, tools, and equipment for vertical drilling, as well as tools for construction sites of infrastructure works. In addition, it fulfills major civil engineering works (highways, viaducts, tunnels, and dams). Founded in 1996, it is made up of a large team of experts oriented towards problem solving applied to large-scale projects. This company has adopted a functional, hierarchical structure, which allows to achieve high operational efficiency in each organizational unit. Nevertheless, a disadvantage lies in the risk of compartmentalization (Parnell et al., 2012): each function operates as micro-company itself, often running the risk of poor coordination and difficulty to pursue the objectives of the organization. The functional areas are management, sales, purchasing & logistic, operations and administration.

ITsvil s.r.l. is a service company working in the field of Information & Communication Technology. It was founded in 2005 by a team of business-oriented specialized human resources. More specifically, their competences are related to the health and local government sectors, contextualized to the effort of bringing technological and innovative solutions into them. ITsvil s.r.l. is a company with high competences in the IT sector for Healthcare, thanks to highly innovative technological services, perfectly adapted to customer needs and qualified and dynamic professional resources. Even in this case, the organizational structure is functional, with a specific hierarchy since the company offers homogeneous products.

Table 1 SMEs' profile

Name Business	Nature	N. of employees
Centre Group srl	Cars and commercial vehicles sales and rental	86
Sip&T Group SPA	Design & selling vertical drilling equipment	66
Itsvil Srl	Information System solutions development	48

(Source: Authors' elaboration)

The study aims not only at understanding how the three Italian SMEs have reorganized the entire work system in a very short time, but also at analyzing the most impetuous problems and the complexity of bringing innovative solutions within the work processes. Team management is a complex process which differs according to the nature of the organizations. There are sectors that necessarily require employee's physical presence. In Center Group, for instance, mechanics and sales consultants' tasks are fundamental, as well as that of employees in Sip & T. In this regard, only the ITsvil company could remotely manage most of the employees' work, using the various communication technologies to coordinate and manage the VT. By producing computer software, programmers can carry out their own tasks directly from home, without being physically present at office. Nevertheless, meeting, and face-to-face communication are generally considered as the most effective processes to deal with organizational activities. The managers'

profile, reported in Table 2, shows a strong professional background, as well as a skilled attitude for the role they are called to play within different sectors.

Table 2 Managers' profile

I.D	Qualification	Organization sector	Years' service
<i>Center Group s.r.l.</i>			
M.1	Bachelor Business and Economics	Administration	10
M.2	Bachelor Political Science	Renting	3
M.3	Bachelor Managerial Engineering	Commercial	8
<i>ITSVil s.r.l.</i>			
M.4	Bachelor Foreign Languages	Human Resources	15
M.5	Bachelor IT	Technical	10
M.6	Master's Degree Accountability	Administration	2
<i>Sip&T s.p.a</i>			
M.7	Master's Degree Accountability	Administration	10
M.8	Master's Degree Business	Finance	15
M.9	Master's Degree H.R.	Human Resources	2

(Source: Authors' elaboration)

2.3 Analysis: interview indicators, primary data

The logic which lies behind the interview's schedule is reported below, and it is graphically synthesized in Figure 3:

Q.1. How much has the virtual teams been adopted within the organization during the months of lockdown? Q.1 is structured in a 5-points Likert scale (Albaum, 1997): it is aimed at understanding how much the company has used VT.

Q.2. Which business sector has had the need to reorganize its work processes? Q.2. is unstructured, allowing the manager to answer freely. It aims at eliciting the sector/function in which it was possible to pursue an organizational change, to identify the reorganization process and to assess its complexity.

Q.3. How satisfied are you by analysing the results achieved by your team adopting the virtual approach? It is a 5-points Likert-scale question, which is aimed at evaluating the achievement of the

objectives. These vary depending on both the company's characteristics and the type of sector in which it operates.

Q.4 How better performance could have been achieved? This is a semi-structured item, since it has both closed answers (software and hardware equipment available to staff, high costs, staff skills) representing the most common problems encountered by companies, as well as an open possibility (other).

Q.5 Which were the main difficulties encountered in implementing VT? The impact of the pandemic was underestimated. Companies had a very limited time to organize remote work, as the lockdown challenged both entrepreneurs and employees. A main issue is related to the difficulties encountered by employees: for the first time, many of them experienced this new dynamic. This item, aimed at assessing this relevant issue, was unstructured.

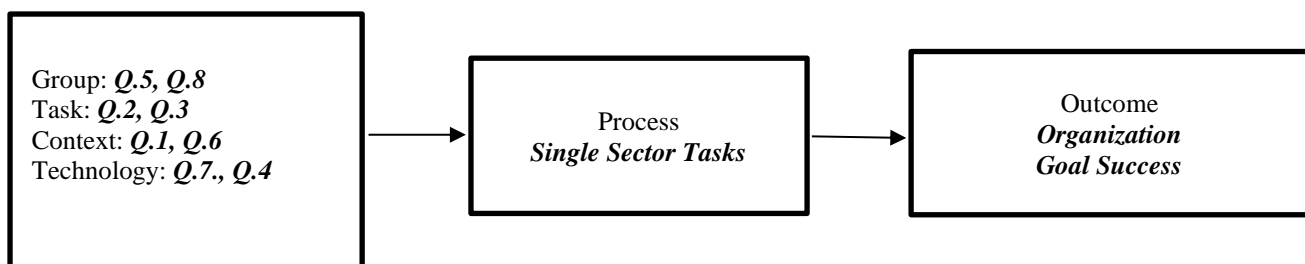
Q.6 Did the staff possess the necessary skills to use the technological tools that VT needed, or had the company to provide specific training courses? This item focuses on the benefits that the VT methodology - still not popular in Italy – has provided at the individual and collective levels. It is a non-structured item, since it can significantly vary according to the type of organization interviewed.

Q.7 How much and in which way Covid-19 emergency has changed the coordination of teamwork? This question is unstructured, since the answers may consider a wide range of SMEs' organizational decisions (adjustments of the tasks, logistical or organizational challenges, et similia).

Q.8 Before the Covid-19 emergency, had the virtual team working method already been tested? If this is a first time, what kind of benefits has it generated? This question is unstructured, as it specifies not only the objectives achieved, but also any improvement in performance the members of the organization would have been able to achieve in better working conditions. This question is also fundamental to assess whether an organization would continue to adopt the VT methodology in the future, when the pandemic will be over.

All these questions were associated with each conceptual domain proposed by the Lurey & Raisinghani (2000) model.

Figure 3 Case study in-depth research model



(Source: Authors' elaboration, inspired by Lurey & Raisinghani, 2001)

3 FINDINGS

The first-order findings provide a narrative of events, revealing insights on VT adoption results according to management view.

3.1 First order analysis

IT'Svil

By offering IT services, IT'Svil was found to be more prepared to adopt VT than the other two firms, where contact and face-to-face communication remain preferential. In fact, in IT'Svil VT has been adopted within the organization during the months of lockdown in all departments, reaching the highest performance in its technological sector, as programmers were able to perform their duties even better than in their usual workplace, because of the absence of the pressure generated by direct relationships with the public. This means that, for the company, some offices could be permanently moved to VT, as it produced an enhancement of organizational performances as well as a sense of complete satisfaction among employees, as found by some studies (Serrat, 2017).

VT performance during the pandemic period is an aspect perceived in a different way, in the different SMEs studied, related to different typologies of virtual teams, it is not possible to apply the same to every company, but it is suggested to choose the most appropriate one. IT'Svil, for instance, chose project groups, in which employees were able to operate changes to their tasks from remote during the lockdown period, carrying out their daily tasks in *Open Source*, due to the nature of its services. This approach, as stated by its managers, allowed the firm to reach the highest scores in terms of performances. This confirms that the company has regarded the pandemic period - more than as a moment of crisis - as an experiment towards the permanent adoption of a new working methodology.

Nevertheless, despite the reached results, IT'Svil employees still faced hard times in balancing work life with private life, at least initially, perhaps due – according to its managers – to the stress related to Covid-19 and relative consequence in reorganizing private life activities and duties.

IT'Svil did not report the need for specific training courses. The SME's employees, in fact, working closely with IT, were ready to adopt VT, and their duties remained almost the same, performing from remote what they normally did in the organization. This suggests that the organization has not radically changed, unlike the other two SMEs. It has been able to remotely lead and coordinate the team in all its sectors, making use merely of the digital communication to coordinate employees' work and lead them to reach the goal.

Overall, this company achieved good results during the lockdown period through communications via digital tools and assigning and by managing job tasks from remote. Therefore, the answers given by its managers shows that VT as coordination vector has brought more advantages than disadvantages to its members. This could be explained by the fact that in IT'Svil all departments had already experienced VT before the pandemic situation: advantages have always been considerable, and it is precisely for this reason that the company has done nothing but find benefits to the implementation of VT during the COVID-19 pandemic.

Sip&T

Sip&T managers responded almost homogeneously to the question concerning to what extent VT had been adopted by the various departments: answers were "*a lot*" in the areas reserved to administration and finance, while "*average*" for the department assigned to human resources. The later represents the organizational unit that has benefited less from the implementation of the VT, thus suggesting that the performance of this department is dependent on fact-to-face interactions, and digital technologies are used only during emergencies.

In contrast with the other two SMEs, in Sip&T the answers were very different from each other, in the many departments that worked by adopting the VT mechanism: logistics, purchasing, and sales, alongside

administration and HR. Still, Sip&T administrators highlighted that the company encountered difficulties concerning the absence of adequate hardware and software equipment available within the company. The financial sector underwent significant changes in digital information and operations sharing in VT, because it was the department which coordinated the financial operations of all the others.

Sip&T choose *self-managed teams*: groups were interdependent and could, therefore, carry out their work in a totally autonomous way, without interfering with other groups coordinated by a team leader. Nevertheless, the absence of a group coordinator for the various departments could explain the hard times that employees encountered in managing working hours and their work-life balance, as emerges in the current debate (Palumbo et al., 2020).

From a knowledge perspective, major problems were encountered in a first step when approaching to a new digital working method, since employees were not used to deal with VT tools and software before the pandemic. The problems were subsequently overcome without providing specific empowerment to the employees. This, of course, required time and efforts that impacted on SME's performance: as shown by managers' responses, employees felt disoriented and did not immediately understand the new working method; the working of the financial department was significantly slowed.

Center Group

Center Group managers all responded with the second level of the Likert scale to the question on VT usage. The HR department did not implement VT, as the company has decided to leave this sector on standby during the pandemic period.

Although the self-managed team proved to be the best choice, a different approach was adopted in Center Group, involving a small team of people working autonomously for each car brand. The case studies analyzed show a high level of satisfaction due to the good results achieved with the VT approach. Not surprisingly, responses were homogeneous, located at the highest satisfaction level.

Because of its commercial nature, in Center Group the lack of adequate training for sellers in VT, the absence of specific equipment for rental use, and the unpreparedness to remote working were the factors that led to initial difficulties within the organization. In fact, the lack of employee's skills in dealing with the latest working technologies available at that moment caused the impossibility to develop a long-lasting Organizational Learning, which is a pivotal aspect in organizational culture (Costa, et al., 2020).

To overcome this limit, at least for some specific departments, the company had to invest in a new software, namely "*Salesforce Live Agent*", to perform remote work. This new program was used mostly in the commercial and rental functions. It allowed to maintain constant communication and to easily carry out daily tasks. Moreover, it could also be used by customers who, visiting the company website, had the possibility to interact with the seller by call or video call, leaving messages, and asking for info and cars' costs, as well as virtually trying different configurations. The software was also useful for the rental sector: through chat, each team member could respond to several customers almost simultaneously, providing detailed feedback on their requests. Disadvantages, on the other hand, can be found in regular customers' unwillingness to make use of this software due to their limited skills and perceived low trust.

VT methodology was applied for the first time in the commercial and rental departments. The work processes usually continued to rely on face-to-face meetings between the actors, leaving for VT only the file transfer activity, so VT turned out to be more an experiment than an effective application. The time saving was the greatest advantage found, something that hardly happened with the traditional group work.

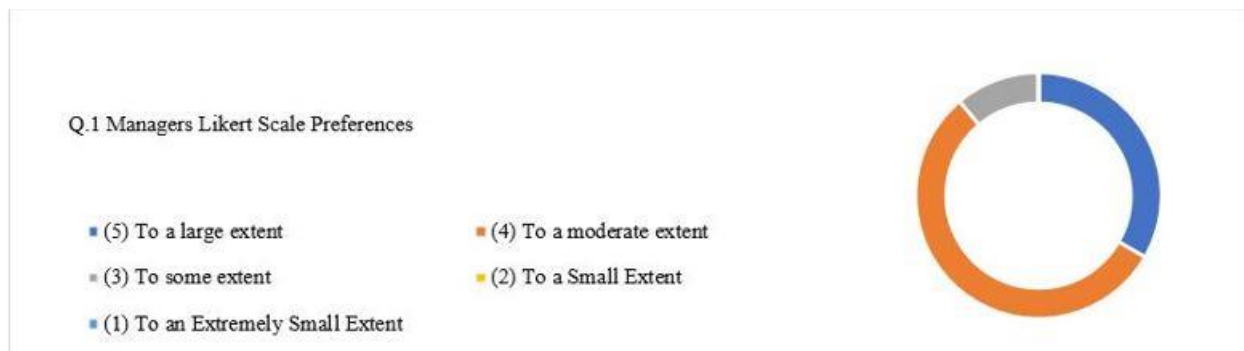
3.2. Comparative findings

Primary findings are not necessarily explicative on providing a clear practical synthesis of the suggested VT results. Therefore, still according to Gioia and Chittipeddi (1991), it is useful to enrich the discussion with concluding statements and further practical results.

Comparative findings

Comparing all the 9 *managers'* responses, it can be noticed that the typology of business played an essential role in VT usage and adoption within the organization during the months of lockdown (Fig. 4 and 5).

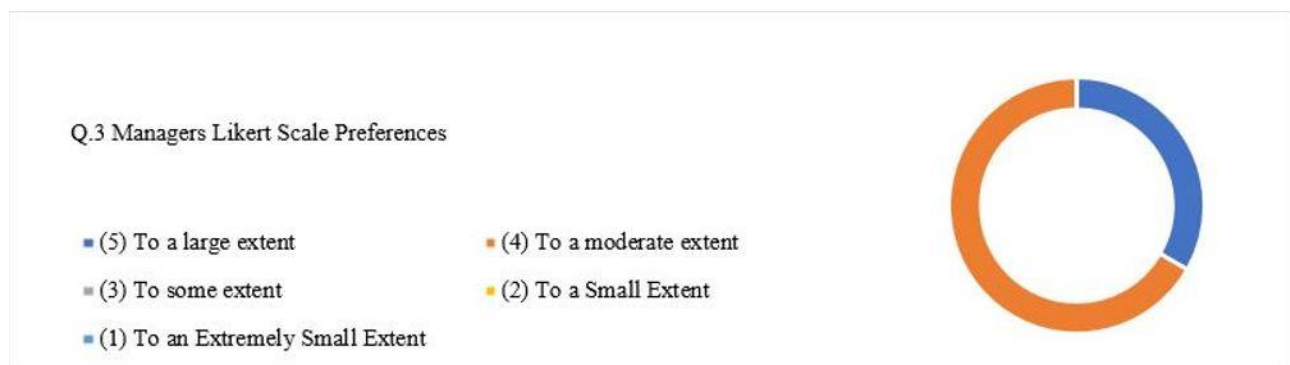
Figure 4 Q.1 Results



(Source: Authors' elaboration)

The organizational unit that has used VT in all three companies is the administrative unit. This means that, regardless of the type of sector in which the companies work (commercial, production or services), there is always room for VT methodology.

Figure 5 Q.3 Results



(Source: Authors' elaboration)

Despite some specific considerations that have been made, better results could have been achieved if VT had been immediately understood and implemented, both in technical and operational terms. The relative earnings in terms of time and resources could have been used in a better timetable rescheduling, aspect that in all the three SMEs should have been improved. In fact, one of the strengths of VT is to allow

employees to perform their tasks in a more efficient way during the whole working day. This is a relevant benefit, both from the entrepreneurial point of view and from that of the staff, that the firms – probably because of the pandemic challenges - were not able to rationally manage.

In conclusion, during Covid-19 pandemic specific organizational units, thanks to the VT approach, continued to work efficiently and effectively unlike others, which necessarily require traditional teamwork to be efficient.

4 DISCUSSION

4.1 Thematic analysis: theoretical considerations

Findings allow the identification of four key factors which nourish the current debate in organizational studies and, therefore, could be considered as conceptual dimensions to be included for a future - and more comprehensive - assessment of VT performance during crisis:

(A) *Happiness at work and firm performance.* The results of this explorative research confirm what many research streams argue on the correlation between workers' satisfaction with their working life and its impact on organizational performance (Beauregard & Henry, 2009; Salas-Vallina et al., 2017). In this sense, Covid-19 pandemic exacerbated the main difficulties that both employees and entrepreneurs faced, and VT proved to be an effective tool through which to cope with crisis.

(B) *Work-life balance.* Employees' wellness and satisfaction at work is often affected by the presence of a supportive working context (Prieto and Pérez-Santana, 2014) which allows for an adequate work-life balance (Alegre and Pasamar, 2018). Accordingly, VT implementation had a positive effect on work-life balance, allowing for eliminating the downtime occurring in the workday. This is what emerges from 2 SMEs out of 3. In Itsvil, conversely, the lack of work-life balance has certainly, as stated by the managers, influenced a less impactful performance of the organization, as suggested by several studies (Ojo et al., 2014; Nayak & Sahoo, 2015).

(C) *Organizational Learning.* This study spurred the importance of the role of knowledge sharing within the organization. Accordingly, the literature (Oh, 2019) suggests that Organizational Learning (OL) consists of that form of knowledge occurring when the members of an organization, dealing with a problem, take collectively action and set up strategies to solve it. In other words, both employees and managers act as "learning actors" for the organization, that is, when information, experiences, discoveries, evaluations of everyone become the common heritage of the entire organization, translating them in norms, values, and metaphors based on which everyone acts (Poell et al., 2018). For Chiva et al. (2018, p.87), it is "*the efficient procedure for the processing, interpretation, and improvement of representations of reality*". The current pandemic, in fact, led organizations and its members to develop a common knowledge with which to cope with the pandemic and the SMEs aims. Findings show evidence of organizational learning, and an overall degree of satisfaction of the managers in this respect.

(D) *E-leadership.* Recent literature conveys the idea a social influence process that lies in both proximal and distant contexts mediated by IT structures that may produce a relevant shift in thinking, behavior, and performance of a team headed by a group leader (Avolio et al., 2014). This, according to Van Wart et al. (2019), emphasizes the role and the efficacy of information and communication technologies in leading employees remotely. The results of this analysis show evidence of e-leadership rise, and managers appeared satisfied that through communication tools they could manage the whole VT functions and coordinate their members.

In a nutshell, findings pave the way for future research. In fact, the need to deeply investigate the nature of happiness at work as well as the degree of job satisfaction are highlighted. Although limited to

organization's managers, these interviews showed a good level of job satisfaction, and proved worth to be investigated even from workers perspective in further quantitative evaluations (Salas-Vallina et al., 2017).

Moreover, all the involved workers - despite different results achieved with VT – struggled in balancing employee work-life. This suggests that the improvement in work performance, when VT are adopted as an obligation and not by choice (Ahmad, 2013), may generate an imbalance of work-life time schedules. In addition, the importance of specific teaming routines or conditions emerges, like the ones spurred during the pandemic, "*agreed upon goals, independence to experiment and an environment of trust*", (Dixon, 2017, p.146). If implemented in a VT, these conditions could foster continuous learning. Therefore, future studies could focus on investigating settings and conditions which mostly contribute to OL development in VT.

Lastly, a further common element emerged from the interviews is managers' satisfaction in carrying out their leadership roles exclusively in virtual scenarios. In fact, digital leadership helped managers to control the operations and interactions between the various departments and the teams, despite all the difficulties encountered and independently from their performance. This may suggest that digital leadership (*e-leadership*) in a period of crisis (Kulshreshtha & Sharma, 2021). could be unrelated to the goals that the team itself should achieve. Therefore, its role in influencing VT performance should be further debated.

4.2. Thematic analysis: empirical considerations

From what emerges from the exploratory survey's results, the three SMEs did not have fully overlapping perspectives towards VT. In ITSvil, in fact, being by nature a company that does not require specific equipment to be able to work, employees could work from any place carrying out their tasks still in such performing manner (Shin et al., 2015), so that+ the company itself was not affected by the Covid-19 pandemic. Therefore, it maintained a high performance, and kept hiring during the pandemic period.

By comparing the answers given by the other firms' managers, greater difficulties emerged. Since the dealership sector encounters several hardships if being carried out remotely – because both customers and sellers prefer a face-to-face approach – it has become quite complicated for Center Group to maintain high performance during the pandemic lockdown. Furthermore, team members of both the rental and the sales departments found it difficult to carry out their tasks remotely, having to provide training for the use of "Live Agents" management software. Therefore, desired results have not been fully achieved and maintaining VT appears a challenging task. Sip&T, on the other hand, faced more problems than the other two SMEs, especially in the Human Resources department. In addition, other departments suffered inconveniences both with the communication tools implementation and with employees (Hertel et al., 2006), who were too resistant to change. Despite that, the firm decided not to provide specific training for VT. According to the administrative manager, VT has been adopted not as a permanent response, but as a Covid-19 temporary crisis response, since the SME had to quickly reorganize to face the lockdown. Accordingly, it can be eventually deduced that the company could certainly have achieved better results with more time available to reorganize itself.

Results show that significant organizational changes occurred during the lockdown for each organizational sector. In particular:

- (1) the administration department adopted VT in all the three companies. In this case, the organizations did not change significantly, except for the communication means adopted. In fact, employees used multiple software for videoconferences for an almost face-to-face

synchronous interaction (Skype was used by both IT'Svil and Sip&T while Microsoft Teams was used by Center Group);

- (2) the human resources department continued to work during the pandemic in both Sip&T and IT'Svil, while in Center Group remained on standby (in this case, the related duties were carried out by other departments). Communication tools changed, and core activities, on the contrary, remained almost the same;
- (3) the technical manager department, exclusive to IT'Svil, faced several changes only in communication, but the tasks remained relatively constant. In this case, workers were able to work at their full potential on several projects through TV. This department proved to be even more efficient than in pre Covid-19 period, achieving results that had never been achieved within the company;
- (4) the financial department in Sip&T has faced many challenges. By adopting VT for the first time, members were considerably disoriented; tasks changed slightly due to technological changes and because of the absence of the basic equipment to work left in the company office when the pandemic started. Nevertheless, VT in Sip&T did not promote training initiatives tailored to their needs;
- (5) both the commercial and rental departments in Center Group significantly changed their structure and activities: they adopted new technological communication tools, a new software for remote work requiring basic training; team members found themselves ready and motivated to perform their remote work.

CONCLUSIONS

This analysis showed that a relevant shift in organizational dynamics occurred, particularly in some of the SMEs departments involved in the analysis. Others experienced a transition in working hour schedules and diversification of the technological tools to manage remote interaction. Notwithstanding, the three SMEs desire to extend the use of VT at least temporarily and/or even after the pandemic.

Therefore, VT adoption in SMEs appears to be an exciting phenomenon worth investigating even after the pandemic because, as suggested by this exploratory study, it can be a consistent means to lead companies towards a phase of post-pandemic economic rebirth.

Several limitations affected the study findings reported above. The SMEs interviewed through their managers' voices are not quantitatively relevant to answering the proposed research question. Besides, the literature review on VT performance has not been carried out systematically, and, therefore, it does not contemplate the full range of efforts made by scholars to contextualize this phenomenon. The indicators chosen to set up the questions were based on the existing literature contributions of VT, members, and firm characteristics but following discretionary criteria, which were crafted in light of the particular challenges faced by SMEs in the Covid-19 era.

Lastly, despite the encouraging results from the interviews, it is still too pretentious to account VT as one of the most performing organizational tools for SMEs to face the pandemic. This study, however, has emphasized the lack of specific studies on the impact of VTs in crisis contexts

and should be read as a checkpoint from which starting a research agenda development, which should include:

- (1) a systematic literature review of the most accredited studies on the VT performance measurement in firms and organizations, to return contributions to be considered for the construction of a specific survey scale during and post-pandemic;
- (2) the survey validation through a Delphi methodology with experts from the business, digital and organization sectors;
- (3) the survey administration to a representative and a quantitatively consistent sample of managers, employees, and business owners to effectively measure the previously validated phenomenon.

Furthermore, it could be interesting for both managers and organizational scholars to repeat this study after 2 years of VT adoption to the same SME sample to compare their shift in attitudes towards the pandemic period and organizational change.

REFERENCES

- Ahmad, S., (2013), Paradigms of Quality of Work Life, *Journal of Human Values*, Vol.19, issue 1, pp.73-82
- Albaum, G., (1997), The Likert scale revisited: An alternate version, *Market Research Society. Journal of the Market Research Society*; Vol. 39, Issue 2, pp.331-348
- Alegre, J., & Pasamar, S., (2018), Firm innovativeness and work-life balance, *Technology Analysis & Strategic Management*, Vol.30, n.4, pp.421-433
- Alegre, J., Romera, F., García-Granero, A., Fernández-Mesa, A., (2018), Open Innovation and experimentation in a small learning organization. In *Open Innovation and Knowledge Management in Small and Medium Enterprises*; *World Scientific Publishing Co. Ptd. Ltd.: Singapore*, pp. 163–181.
- Algesheimer, R, Dholakia, UM., & Gurău, C. (2011), Virtual Team Performance in a Highly Competitive Environment, *Group & Organization Management*, vol.36, n.2, pp.161-190
- Alsharo, M., Gregg, D., & Ramirez, R. (2017). Virtual team effectiveness: The role of knowledge sharing and trust. *Information & Management*, Vol.54 No.4, pp.479-490.
- Avolio, BJ., Kahai, S., Dodge, G., (2000), E-leadership: Implications for theory, research, and practice, *Leadership Quarterly*, Vol.11, n.4, pp.615–668
- Barratt M., Choi, T.Y., Li, M., (2011), Qualitative case studies in operations management: Trends, research outcomes, and future research implications, *Journal of Operations Management*, Volume 29, Issue 4, pp. 329-342
- Beauregard, T.A. & Henry, L.C., (2009), Making the link between work-life balance practices and organizational performance, *Human Resource Management Review*, Volume 19, Issue 1, pp. 9-22
- Bellandi, M., De Propris, L., & Santini, E. (2019). Industry 4.0 + challenges to local productive systems and place-based integrated industrial policies. In P. Bianchi, C. R. Durán, & S. Labory (Eds.), *Transforming industrial policy for the digital age: Production, territories and structural change* (pp. 201–218). *Cheltenham: Edward Elgar Publishing*.
- Bloom, N., Liang, J., Roberts, J. & Ying, Z.J., (2015), Does Working from Home Work? Evidence from a Chinese Experiment, *The Quarterly Journal of Economics*, Volume 130, Issue 1, pp. 165–218
- Braun, V., & Clarke, V. (2006), Using thematic analysis in psychology, *Qualitative research in psychology*, Vol.3, n.2, pp.77-101
- Cassetta, E., Monarca, U., Dileo, I., Di Berardino C., & Pini M., (2020), The relationship between digital technologies and internationalisation. Evidence from Italian SMEs, *Industry and Innovation*, vol.27, n.4, pp.311-339
- Chen, S., Geluykens, R., Choi, C. J., (2006), The Importance of Language in Global Teams: A Linguistic Perspective, *Management International Review*, vol.46, n.6, pp. 679–695

- Chiva, R., Lapiedra, R., Alegre, J., & Miralles, S., (2018), Organisational Learning and Knowledge Management: A Prospective Analysis Based on the Levels of Consciousness, pp.85-103, in *The Palgrave Handbook of Knowledge Management*, Palgrave Macmillan, London
- Corley, K. G., & Gioia, D. A. (2011), Building theory about theory building: what constitutes a theoretical contribution?, *Academy of management review*, Vol.36, n.1, pp.12-32.
- Costa, J., Rodrigues, A. C., & Ferreira, M. R. (2020). Organizational culture in social economy organizations. *Economics & Sociology*, Vol.13 No.3, pp.156-170.
- Curlee W. (2008), Modern Virtual Project Management: The Effects of a Centralized and Decentralized Project Management Office, *Project Management Journal*, vol.39 (1_suppl), pp.S83-S96.
- Dvorský, J., Čepel, M., Kotásková, A. & Bugánová, K.(2021). Differences in business risk effects on the future of SMEs due to Covid-19 pandemic. *International Journal of Entrepreneurial Knowledge*, Vol.9 No.2, pp.14-31.
- Dixon, N., (2017), Learning together and working apart: routines for organizational learning in virtual teams, *The Learning Organization*, Vol. 24 No. 3, pp. 138-149.
- Edmondson, A. C., (2003), Speaking up in the operating room: How team leaders promote learning in inter disciplinary action teams, *Journal of Management Studies*, Vol. 40, pp.1419-1452
- Eisenhardt, K.E., (1989), Building Theories from Case Study Research, *The Academy of Management Review*, Vol. 14, No. 4, pp. 532-550
- Gaudes, A., Hamilton-Bogart, B., Marsh, S. and Robinson, H. (2007), A framework for constructing effective virtual teams, *The Journal of E-working*, Vol. 1, pp. 83-97
- Gehman, J., Glaser, V. L., Eisenhardt, K. M., Gioia, D., Langley, A., & Corley, K. G. (2018), Finding theory–method fit: A comparison of three qualitative approaches to theory building, *Journal of Management Inquiry*, Vol.27, n.3, pp.284-300.
- Gioia, D. A., & Chittipeddi, K. (1991), Sensemaking and sensegiving in strategic change initiation, *Strategic management journal*, Vol.12, n.6, pp. 433-448
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013), Seeking qualitative rigor in inductive research: Notes on the Gioia methodology, *Organizational research methods*, Vol.16, n.1, pp.15-31
- Grbich, C., (1998), Qualitative research in health: An introduction, *Sage Publications Ltd, New York (US)*
- Grözinger, N., Irlenbusch, B., Laske, K., Schröder, M., (2020), Innovation and communication media in virtual teams – An experimental study, *Journal of Economic Behavior & Organization*, Volume 180, pp. 201-218
- Hall, K. L., Feng, A. X., Moser, R. P., Stokols, D., & Taylor, B. K. (2008a). Moving the science of team science forward, *American Journal of Preventive Medicine*, Vol.35, pp.S243–S249.
- Hall, K. L., Stokols, D., Moser, R. P., Taylor, B. K., Thornquist, M. D., Nebeling, L. C., et al. (2008b), The collaboration readiness of transdisciplinary research teams and centers, *American Journal of Preventive Medicine*, vol.35, pp. S161–S172.
- Hertel, G., Geister, S. & Konradt, U., (2005), Managing virtual teams: A review of current empirical research, *Human Resource Management Review*, Vol.15, pp.69 – 95
- Hertel, G., Konradt U., & Voss, K., (2006) Competencies for virtual teamwork: Development and validation of a web-based selection tool for members of distributed teams, *European Journal of Work and Organizational Psychology*, vol.15, n.4, pp.477-504,
- Hoegl, M., Ernst, H., & Proserpio, L. (2007), How teamwork matters more as team member dispersion increases, *Journal of Product Innovation Management*, vol.24, n.2, pp. 156–165
- Hope, T., Portenoy, J., Vasan, K., Borchardt, J., Horvitz, E., Weld, D.S., Hearst, M.A., and West, J., (2020), Scisight: Combining faceted navigation and research group detection for covid-19 exploratory scientific search, *Information Retrieval Repository*, arXiv:2005.12668.
- Juergensen, J., Guimón, J. & Narula, R. (2020) European SMEs amidst the COVID-19 crisis: assessing impact and policy responses, *Journal of Industrial and Business Economics*, vol. 47, pp. 499–510
- Hannibal, M., Knight, G., (2018), Additive manufacturing and the global factory: Disruptive technologies and the location of international business, *International Business Review*, Volume 27, Issue 6, pp. 1116-1127

- Kirkman, B.L., Rosen, B., Tesluk, P.E., & Gibson, C.B. (2004), The impact of team empowerment on virtual team performance: The moderating role of face-to-face interaction. *Academy of Management Journal*, vol.47, pp. 175–192.
- Klein, KJ, Ziegert, JC, Knight, AP, Xiao, Y., (2006), Dynamic Delegation: Shared, Hierarchical, and Deindividualized Leadership in Extreme Action Teams, *Administrative Science Quarterly*, vol. 51, n.4, pp. 590-621
- Krumm, S., Kanthak, J., Hartmann, K., & Hertel, G., (2016), What does it take to be a virtual team player? The knowledge, skills, abilities, and other characteristics required in virtual teams, *Human Performance*, 29:2, 123-142
- Kulshreshtha, K., & Sharma, G. (2021). Understanding e-leadership: Please mind the gap. *Technological Forecasting and Social Change*, 168, 120750.
- Lurey, J.S., & Raisinghani, M.S., (2001), An empirical study of best practices in virtual teams, *Information & Management*, Volume 38, Issue 8, 2001, pp. 523-544
- Massey, A.P., Montoya-Weiss, M.M., & Hung, Y., (2003) Because Time Matters: Temporal Coordination in Global Virtual Project Teams, *Journal of Management Information Systems*, vol.19, n.4, pp. 129-155
- Mathieu, J. E., Maynard, M. T., Rapp, T., & Gilson, L. (2008), Team effectiveness 1997-2007: A review of recent advancements and a glimpse into the future, *Journal of Management*, vol.34, pp. 410-476
- Maznevski, M.L., Distefano, J.J., (2000), Global leaders are team players: Developing global leaders through membership on global teams, *Human Resource Management*, Volume 39, Issue 2-3, pp. 195-208
- Meijaard, J., Brand, MJ., Mosselman, M., (2005), Organizational Structure and Performance in Dutch small Firms, *Small Business Economics*, vol.25, pp.83–96
- Metallo C., (2007), L'organizzazione del lavoro a distanza, *G. Giappichelli Editore, Torino*
- Nayak, T., Sahoo, CK., (2015), Quality of Work Life and Organizational Performance: The Mediating Role of Employee Commitment, *Journal of Health Management*, vol.17, n.3, pp.263-273.
- Oh, S.-Y. (2019), Effects of organizational learning on performance: the moderating roles of trust in leaders and organizational justice, *Journal of Knowledge Management*, Vol. 23 No. 2, pp. 313-331.
- Ojo, I. S., Salau, O. P., & Falola, H. O. (2014). Work-life balance practices in Nigeria: A comparison of three sectors. *Journal of Competitiveness*, Vol.6 No.2, pp.3-14.
- Olson, J. and Olson, L. (2012), Virtual team trust: task, communication and sequence, *Team Performance Management*, Vol. 18 No. 5/6, pp. 256-276.
- Palumbo, R. (2020a), Let me go to the office! An investigation into the side effects of working from home on work-life balance, *International Journal of Public Sector Management*, Vol. 33 No. 6/7, pp. 771-790.
- Palumbo, R. (2020b), Improving Health Professionals' Involvement Whilst Sustaining Work–Life Balance: Evidence from an Empirical Analysis, *Sustainability*, vol.12, 9291, pp.1-21
- Palumbo, R., Manna, R. and Cavallone, M. (2020), Beware of side effects on quality! Investigating the implications of home working on work-life balance in educational services, *The TQM Journal*, Vol. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/TQM-05-2020-0120>
- Pangil, F. and Moi Chan, J. (2014), The mediating effect of knowledge sharing on the relationship between trust and virtual team effectiveness, *Journal of Knowledge Management*, Vol. 18 No. 1, pp. 92-106
- Parnell, J.A., Lester, D.L., Long, Z. and Köseoglu, M.A. (2012), How environmental uncertainty affects the link between business strategy and performance in SMEs: Evidence from China, Turkey, and the USA, *Management Decision*, Vol. 50, No. 4, pp. 546-568
- Peters L, Karren RJ., (2009), An Examination of the Roles of Trust and Functional Diversity on Virtual Team Performance Ratings, *Group & Organization Management*, vol.34, n.4, pp.479-504
- Poell, R.F., Lundgren, H., Bang, A., Justice, S.B., Marsick, V.J., Sung, S. and Yorks, L. (2018), How do employees' individual learning paths differ across occupations? A review of 10 years of empirical research, *Journal of Workplace Learning*, Vol. 30 No. 5, pp. 315-334

- Potter, R. E., & Balthazard, P. A., (2002), Virtual team interaction styles: Assessment and effects. *International Journal of Human – Computer Studies*, vol.56, pp.1 – 21.
- Prieto, I. M., & Pérez-Santana, M. P., (2014), Managing Innovative Work Behavior: The Role of Human Resource Practices, *Personnel Review*, Vol.43, n.2, pp. 184–208
- Rachinger, M., Rauter, R., Müller, C., Vorraber, W., & Schirgi, E., (2019), Digitalization and its influence on business model innovation, *Journal of Manufacturing Technology Management*, Vol. 30, n.8, pp.1143-1160
- Rabinow, P., & Sullivan, W. M., (1979), Interpretive Social Science, *University of California Press, Berkeley, CA*
- Reed, A.H., Knight, L.V., (2010), Effect of a virtual project team environment on communication-related project risk, *International Journal of Project Management*, Volume 28, Issue 5, pp. 422-427
- Romeike, P.D., Nienaber, A.M., & Schewe, G., (2016). How differences in perceptions of own and team performance impact trust and job satisfaction in virtual teams, *Human Performance*, Vol29:4, pp.291-309
- Rowley, J. (2012), Conducting research interviews, *Management Research Review*, Vol. 35 No. 3/4, pp. 260-271
- Rugiadini, A., (1979), Organizzazione d'Impresa, *Giuffrè Editore, Milano*
- Salas-Vallina, A., Alegre, J., & Fernandez, R., (2017), Happiness at work and organisational citizenship behaviour: Is organisational learning a missing link?, *International Journal of Manpower*, Vol. 38 No. 3, pp. 470-488.
- Salas-Vallina, A., López-Cabrales, Á., Alegre, J. and Fernández, R. (2017), On the road to happiness at work (HAW): Transformational leadership and organizational learning capability as drivers of HAW in a healthcare context, *Personnel Review*, Vol. 46 No. 2, pp. 314-338.
- Serrat O. (2017) Building a Learning Organization. *In: Knowledge Solutions. Springer, Singapore.*
- Shin Y, Kim M, Choi JN, Lee S-H. (2015), Does Team Culture Matter? Roles of Team Culture and Collective Regulatory Focus in Team Task and Creative Performance, *Group & Organization Management*, Vol.41, n.2, pp. 232-265.
- Schmutz, J. B., Lei, Z., Eppich, W. J., & Manser, T., (2018), Reflection in the heat of the moment: The role of in-action team reflexivity in health care emergency teams, *Journal of Organizational Behavior*, vol.39, pp.749–765
- Spradley, J. (1979), Asking descriptive questions, *The ethnographic interview*, vol.1, pp. 44-61
- Stokols, D., Hall K.L., Taylor, B.K., & Moser, R.P., (2008), The Science of Team Science: Overview of the Field and Introduction to the Supplement, *American Journal of Preventive Medicine*, Volume 35, Issue 2, Supplement, pp.S77-S89
- Tata, J., & Prasad, S., (2004), Team Self-management, Organizational Structure, and Judgments of Team Effectiveness, *Journal of Managerial Issues*, vol.16, n.2, pp.248-265
- van den Broek, J., Boselie, P., & Paauwe, J. (2018), Cooperative innovation through a talent management pool: A qualitative study on cooptation in healthcare, *European Management Journal*, Vol.36, n.1, pp.135-144.
- van Tulder, R., Verbeke, A., & Piscitello, L., (2018). Introduction: International Business in the information and digital age an overview of themes and challenges. In R. van Tulder, A. Verbeke, & L. Piscitello (Eds.), *International Business in the information and digital age (Progress in International Business Research)* (pp. 1–13). *Bingley: Emerald Publishing Limited.*
- Van Wart M, Roman A, Wang X, Liu C., (2019), Operationalizing the definition of e-leadership: identifying the elements of e-leadership, *International Review of Administrative Sciences*, Vol.85, n.1, pp.80-97
- Wageman, R., (2001), How leaders foster self-managing team effectiveness: Design choices versus hands on coaching, *Organization Science*, vol.12, pp.559-577
- Wageman, R., Gardner, H., & Mortensen, M. (2012), The changing ecology of teams: New directions for teams research, *Journal of Organizational Behavior*, Vol. 33, pp.301-315.

- Westerman, G., Calm ejane, C., Bonnet, D., Ferraris, P. and McAfee, A. (2011), Digital transformation: a road-map for billion-dollar organizations, *MIT Center for Digital Business and Capgemini Consulting, Cambridge, MA and Paris*
- You-Na, L., Walsh J., Wang, J., (2015), Creativity in scientific teams: Unpacking novelty and impact, *Research Policy*, Volume 44, Issue 3, pp. 684-697
- Zammuner, V. L. (1998), Tecniche dell'intervista e del questionario, *Bologna: Il Mulino*.

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