

“The dark side of industrial clusters: human resources”

Introduction

Generally speaking, human resources (HRs) are the set of people that make up a company's human factor. They are the workers, employees and managers. Any person who has a contractual relationship with an organization is considered an HR. HRs is also a business function centralized or not in a department (human resource management – HRM) that develops three critical tasks: acquiring and developing worker skills, employee motivation and job design (Schuler and Jackson, 1987). Moreover, HRM has to do with what is called labor administration (wages, social security, payroll and unions) and the adjustment of people to each job position (Mathis *et al.*, 2015). In short, HRM is a set of policies and practices designed to maximize organizational integration, employee commitment, flexibility and quality of work (Guest, 1987; Paauwe, 2009).

Human capital (HC) is defined as the knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being (Healy and Côté, 2001). HC represents the stock of talent of an organization. HRs and HC have in common the people, who are a crucial aspect in the microfoundations of the industrial clusters (ICs), but they differ in the scope given to them. This feature can explain that two firms have the same dotation of HRs but different levels of HC (Nerdrum and Erikson, 2001). In other words, HRs have mainly an individual-level perspective while HC belongs to the individual and groups (Ployhart *et al.*, 2014). From a strategic perspective, Wright and McMahan (2011) argue a mediator role between the HRM and the HC because through HRs practices, firms combine and transform the people's skills and talent into HC. Recently, authors as Belso-Martinez *et al.* (2018) have evidenced that firms with superior internal capabilities obtain better access and exploitation to the external resources of the IC.

HC is along with the social and organizational capital, part of a firm's intellectual capital (Coleman, 1988). Due to its nature, it can be studied at different levels (individual, unit, firm and territories). For this reason and reverse causality, it is intrinsically linked with the literature's ICs. I mean, whether according to Porter (2000), ICs are geographic concentrations of interconnected organizations in related industries, it can be said that its essential components are people (HRs), interrelations and firms. In this line, Marshall (1890) postulates that these territories are simultaneously a set of HRs in the quantity and qualification that the main industry needs and an environment that spread the innovations. This combination between HC and HRM influences the performance and evolution of the ICs (Fromhold-Eisebith, *et al.*, 2021).

Literature abounds on the positive cluster effect on firm performance (Claver-Cortés *et al.*, 2019). Also, abundant empirical evidence links HRM and firm performance (Combs *et al.*, 2006). Furthermore, the economic-business literature relates the company's performance with the management and quality of its HC (Crook *et al.*, 2011). Two main arguments seem to explain these effects. First, at an individual level, the positive relationship between employee commitment and a satisfied workforce with firm performance (Martinez-del-Río *et al.*, 2013). Second, given its uniqueness at a firm level, HRs are associated with the firm's competitive advantages through flexibility, resilience and innovation (Pfeffer, 1994).

This research has been funded by the Research Project UV-INV-AE19-1206484 of the University of Valencia (Spain).



However, the workforce and competitive environment are changing. They have higher education levels and expectations, and technology is modifying the nature of the jobs. Moreover, globalization and economic crisis require fast and effective responses by companies that are sometimes threaten and erode the territories' stability and its HC (for example, the fluid/liquid workforce). These general trends undoubtedly need a new perspective in the study of HRM in the ICs. This new angle that I call the dark side should focus at a firm-level on the community of people that are part of clusters (human side) and in the mechanisms and ways clustered firms combine and transform HRs in HC (HRs firm policies).

The human side of the ICs

In the territories that host ICs, there are many companies, people who work and live there and a particular competition and cooperation system among its members. Most are small and medium-sized companies; with a low degree of vertical integration, specialized in one or some phases of the production process in the main or related industries; and according to their managerial role, independent, with a slight separation between ownership and control and a marked family character (Puig and Marques, 2010). This diversity of firms (related and unrelated to the primary industry) is relevant for the innovative performance and identification of different types of HRs (Giannini *et al.*, 2019). Another relevant characteristic of these firms is that most of them are spinoffs (founded by incumbent firms from the same industry located close to their parents), which enhances tie formation in the local network, favoring collaboration harnessing of knowledge concentration (Juhász, 2019). As Bahrami, and Evans (1995) pointed out, in some IC's a flexible recycling of the entrepreneurial spirit is remarkable, that is, in turbulent and crisis times, the bankruptcy or demise of one firm typically leads to the formation of others. This particular "flexible recycling" or "business turnaround" process can result in a new reconfiguration of knowledge and human capabilities, allowing new companies to rise from the ashes of disengaged companies.

HRs who live and work in it are workers (core and peripheral) and managers (middle and top). Due to the proximity, clustered firms compete personally, due to people that form part of it is immerse community knows the salaries, shifts and work conditions. In line with Dierickx and Cool (1989), firms compete in the product market and in the factor market (where humans are essential). The IC's are not an exception, and sometimes firms establish rules of coexistence for it ("gentlemen agreements" so as not to "steal" the high qualified workers) (Urzelai and Puig, 2019). Moreover, when the HRs are identified, it will require considerable time to develop the necessary resource base due to the impossibility of acquiring it in factor markets and phenomena such as causal ambiguity and isolation mechanisms (Fromhold-Eisebith *et al.*, 2021).

In the ICs, the information is not easy to keep secret (Saxenian, 1994). Sometimes both, workers and managers live in the same town and share a homogeneous system of values and ideas, which are the expression of an ethic of work and activity, family, reciprocity and change (Becattini, 2004). Its stability characterizes a specialized workforce in the IC; essentially local, though not exclusive, recruiting arena; more professional than higher levels of training; and increased mobility constituted in the stages that make up the promotion (Fromhold-Eisebith *et al.*, 2021). The HRs in the cluster allow flexibility due to their capacity to develop different jobs and the numerical flexibility they grant (Martinez-del-Río *et al.*, 2013).

The system of relationships, mainly informal and unstructured, is critical for creating and disseminating information and knowledge, generating their HC (Molina-Morales, 2001). These relationships are among people belonging to different actors in the cluster

(competitors, suppliers, clients, associations and technological institutes) and embeddedness in formal and informal ties (Nassimbeni, 2003). As a result of this, it can be said that the diversity of firms, heterogeneity of people, and particular framework of relations, demands at an IC level-specific management and policies of HRs.

HRM and firm policies in clustered firms

As it has been commented, depending on the type of organization working on the IC (upstream and downstream firms, professional associations, local and financial support institutions, providers of business services and R&D institutes, local government and competitors), and the link that the workforce maintains with said organizations (occasional or permanent relationship), as well as the level of responsibility exercised (core and peripheral employees) and the level of talent they accumulate (skill and unskilled), it is possible to distinguish different types of HRs policies and practices.

To give light to the dark side, HRM should adjust in terms of number and skills, the workforce supply to the actual demand of the territory. For example, for the recruitment and retention to distinguish between the peripheral employees of the IC and the core. The first group's needs can be covered through low-involvement practices (temporary employment, part-time hiring and subcontracting). For the second group, the focus should be high-involvement work practices (selection, training programs, systems of team working and types of incentives).

On the other side, at a unit level, to attend to the specific demands of the people. For this purpose, it is necessary to consider the role of the HC in the training processes and critical changes that are taking place in the ICs (Sohn *et al.*, 2016). To be competitive, IC's organizations must adapt and effectively build their HRs capacities to the requirements of the competitive environment. In this sense, HRM should focus on building dynamic capabilities to integrate and reconfigure the resources and competencies that its HRs possess (Schuler and Jackson, 1987). The big challenge is how different intangibles may be acquired and developed and what to do to organize and disseminate HC. In line with Da Giau *et al.* (2020) the Teece's (2007) model, based on sensing, seizing and reconfiguring capabilities, can serve as a starting point.

Purpose of the special issue (SI). From 2015 to 2019 has been uninterruptedly held in the Faculty of Economics of Valencia (Spain) the Clustering Conference (unfortunately, pandemic stopped this successful track record). In this international event based on the face-to-face interactions framed in a cozy atmosphere created by senior and junior researchers on the topic, but also for managers and politicians interested in it, we noted three aspects: the growing interest for the academy on the issues of the IC, the global scope of it both in geography terms and activity content (services and industries) and the lack of scientific interest and scarce reach on the HRs that form this type of geographic concentrations of companies. The Clustering's participants have advanced in understanding the challenge that globalization, sustainability, and industry 4.0 suppose for it during five editions. Also, they have evidenced the role of clustering in the growth and development of regions. Strategies as innovation and internationalization were analyzed through the lens of Porter's theory. Aspects as proximity (key for the event's organizers) and social capital structures have been constructed and dimensioned. However, after five years seems that HRs still is on the dark side of the ICs.

Our SI tried to harness that phenomenon and selected several papers presented at the last conference (2019) that simultaneously studied firms, location, competitiveness, and HRs from different perspectives. The objective of the SI was to highlight some of the new lines of research emerging in that subject. I am sure that this focus will attract the reader due to the

samples and topics analyzed. Thanks to this effort, the SI covers questions understudied until now and offers new insights regarding ICs, HC, and firm performance. This issue contains the accepted scholarly work that completed the double-blind peer review process successfully. As a result of this compilation, I can affirm that HRs are a critical aspect of explaining the observed heterogeneity in both firms' and regions' performance. Furthermore, their adjustment supply-demand in the territory and internal dynamicity is critical to affront the environmental changes.

Finally, the group of research GESTOR could not pass up the opportunity to announce that the next Clustering Conference will be held in May 2022 in Valencia (if the pandemic situation permits it). Also, another SI based on the conference's motto will be organized (to be announced).

The articles of the special issue

The paper that opens the SI is entitled "Social learning in cluster initiatives" by Malgorzata Rozkwitalska and Anna Lis. The authors aim to portray social learning in cluster initiatives (CIs). To do it, they developed a qualitative study of four CIs. Through the theory of the communities of practice (CoP), they identified various ways social learning occurs among the people and HRs. Basically, into CoP or between them, the learning is created and transferred both unidirectional and bidirectional what is most important for the participation of different actors as participants, cooperators and locomotives. That last aspect is crucial to understand the content of it: awareness, motivation and capabilities. Thanks to this research, critical practical implications for CIs and ICs emerged. First, to identify which group of actors are more involved in each CI. Second, to study how this unequal involvement affects the effectiveness of it. And third, to create and use social learning through alternative ways. This last aspect would suggest more profound research about the keys mechanisms that can favor it (trust, informal connections, repeated interactions and non-competitive relationships) and be implemented to give dynamism to the territories.

The second article, "The influence of clustering on HR practices and intrapreneurial behavior" by Teresa Canet-Giner, Ana Redondo-Cano, Francisco Balbastre-Benavent, Naiara Escriba-Carda, Lorenzo Revuelto-Taboada and María del Carmen Saorin-Iborra, is focused on the analysis of how and why the type of cluster can influence HRM practices and knowledge sharing in organizations that encourage intrapreneurial behaviors in their employees. They compared the HRM practices implemented by two similar companies belonging to different industries through the case study method. Practices such as recruitment, retention, training and compensation were contrasted in the framework of a knowledge-intensive context. As a result of this work, the authors evidence interesting commonalities and differences between the firms analyzed and their location in HRM practices. These exciting results call for more profound studies about the HRM strategy on other aspects like the dynamism and flexibility of the cluster. They can serve as a guide for practical training-oriented programs and the development of knowledge-retention policies.

The third article, "The relational embeddedness as the differentiator of the cluster supply chain (CSC) collaboration – a multidimensional comparative analysis", by Marzena Frankowska and Katarzyna Cheba, sheds light on supply chains under the perspective of the IC literature. They prove that the collaboration of the cluster enterprises within a supply chain is significantly affected by their relational embeddedness in the cluster, and the relational embeddedness is the differentiator of supply chains operating in the clusters. As the authors say, that aspect affects the building of social capital among cooperating actors in CSC due to the framework of relational embeddedness among the people that conform to it. It means that the clustering defines the type of personal relations that develop during

interactions between individuals and are reflected in friendship and respect, which translates into the behavior of actors.

In short, the three papers complement the vision of how the location of the company and its human factor is affected from three perspectives: that of CIs, that of the human factor and that of being part of a chain supply. Furthermore, given the nature of the research, they also contribute to understanding the mechanisms that stimulate and favor the creation and dissemination of HC. In this line, it could be suggested complementing the reading of the first paper with the [Urzelai and Puig \(2019\)](#) (especially for the role of CoPs in the internationalization of firms), the second one with the [Fromhold-Eisebith et al. \(2021\)](#) (to contrast the HRM practices inside and outside of ICs), and the third one with the [Belso-Martinez et al. \(2018\)](#) (to deepen in the relationships between networks in the IC).

Concluding remarks

The main objective of this Editorial was to introduce the SI about HRs and ICs. To do it, it has presented the antecedents, purpose and papers included in it. I do wish this SI can highlight the crucial role that HRs have in the IC's evolution and survival and offer fertile lines of future research about this topic. Beyond these guesses, the contributions of this paper are relevant to stimulate the managers in their strategies and the development of government policies such as the CIs and HRs plans (as has been suggested by [Sohn et al., 2016](#)). It also can serve to think critically on how to affront real challenges like the evolution to industry 4.0 ([Fromhold-Eisebith et al., 2021](#)), sustainable development ([Da Giau et al., 2020](#)), the changes experimented in the global value chains, and the multi-localization of the local firms ([González-Loureiro et al., 2014](#); [Kano et al., 2020](#)).

As a result, I call for a better understanding of the microfoundations of HC in ICs. It means to study how the clustered firms' core employees perceive the deployed firms' policies relative to the acquisition, retention and development; and how the public policies used to face the COVID crisis affect the evolution of the ICs, centripetally or centrifugally. In this regard, interesting questions arise about whether recruitment outside the cluster affects the mechanisms of creation and transfer of knowledge or how HR practices of multinational companies affect the labor market of the cluster. Another relevant aspect is the analysis that the effect of the type of training given to employees has on innovation performance. Regarding jobs, it could be helpful to understand how high-commitment practices (i.e. team-working and teleworking) affect companies' productive flexibility and what the perception is about the threat that robots will substitute for employees. Finally, the analysis of how to improve the clustering among firms, and the effectiveness of core employees from support institutions (cluster managers, institutes, associations, unions) in the cluster's ability to adapt its skills to the changes (for example, sustainability) could be another critical line of research. As far as I know, nothing has been studied for that purpose.

Francisco Puig

Faculty of Economics, University of Valencia, Valencia, Spain

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About the guest editor

Francisco Puig is Professor of Business Strategy at the University of Valencia (Spain). Focused on studying the intersection between Location-Strategy-Performance, he has published in leading academic journals and international books. He is the coordinator of the research group GESTOR (Organizational Geostrategy: Clusters and Competitiveness).