

Conjunctural causality and “multiple effects” in High Performance Work Systems

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Purpose of the research

A large body of literature highlights the key-role of Human Resource Management (HRM) in improving organizational performances. Nevertheless, many questions arise on these “strategic” linkages and some shortcomings remain to be filled. First, a lack of theory that supports the Strategic Human Resource Management (SHRM) tends to disguise the underlying causal mechanisms between high performance work systems (HPWSs) and organizational performances. Second, the complexity relating to the existence of complementarities in the new forms of work organization poses some methodological issues, with particular regard to find support for the configurational approach in SHRM. Finally, the effects of HPWS are not unequivocal on workers-related outcomes, contributing to make enough unclear those underlying causal mechanisms.

Through a systematic review of the existing literature, this study aims to identify the most relevant deficiencies in HPWS research. By analyzing the current debates, we reveal an interesting key to interpret them as highly interrelated challenges and we propose the use of set-theoretic methods to fill them. Overall, this article suggests some future paths of research to be devoted, both empirically and theoretically, to configurations and complementarities in the new work organizations.

Literature Review

Previous literature has investigated the positive effects of HRM practices on various outcome indicators, such as product or service quality (MacDuffie, 1995), turnover (Arthur, 1994), productivity (Ichniowski et al., 1997), financial returns (Delery and Doty, 1996), firm’s value (Huselid, 1995). This growing research area is commonly labeled SHRM which is based on two main guiding assumptions: in order to achieve superior performance, we need both “vertical fit” (which requires the alignment of HR practices with the organizational context) and “horizontal fit” (which requires HR practices to support each other in a consistent HRM system) (Delery, 1998). Although the researchers involved in this field agree upon the strategic impact of HRM on organizational performance, they adopt very different perspectives, depending on which kind of ‘fit’ they consider. The main modes of theorizing include the universalistic, contingency and configurational approaches.

Also known as ‘best-practices approach’ to SRHM (Delery and Doty, 1996), the *universalistic* perspective identifies a positive relationship between certain HRM practices and several outcomes, such as employee commitment (e.g. Walton, 1985) or business performances (e.g. Huselid, 1995). Some examples are incentive pay, participation, employment security, training, team working, total quality management and job rotation (Pfeffer, 1994; Osterman, 1994). More recently, the notion of HPWS has been used to indicate a set of high-performance practices, mutually reinforcing in a consistent HRM system (Arthur, 1994; MacDuffie, 1995; Ichniowski *et al.*, 1997). The logic is that “interrelated and internally consistent HR practices, rather than individual practices, are the appropriate unit of analysis for studying the link to performance, because they create the multiple, mutually reinforcing conditions that support employee motivation and skill acquisition” (MacDuffie, 1995:198). In this way, the concept of ‘HR bundles’ makes its debut.

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Conversely, the *contingent* approach prefers the external fit, since it argues that the greater the consistency with the organizational context (e.g. technology, strategy or organizational structure), the greater the positive impact on business performance. Studies on contingency perspective have focused especially on business strategy, by showing that different HR strategies (and practices) are required for different business strategies (Miles and Snow, 1984; Schuler and Jackson, 1987; Delery and Doty, 1996).

By giving relevance both to the external and internal fit, the *configurational* perspective opens a really interesting scenario. Its fundamental assumption arises from a holistic view of organizations where “each element can best be understood by making reference to the whole configuration” (Miller and Friesen, 1984:1). The configurational approach appears the most suitable for SHRM (Wright and McMahan, 1992), because: 1) it permits inquiry into certain sets or bundles of HR practices that fit with the organizational and environmental context; 2) it aims to find synergic effects in a set of HR practices, based on the idea that the more aligned HR practices are, the higher the performances; and 3) by considering the presence of multiple possible combinations (of HR practices) that can equally lead to higher performance, it involves the concept of *equifinality* (Fiss, 2011). Unfortunately, the configurational perspective in SHRM has found little support from empirical research, due to the mismatch between theory and research methods. In order to overcome the most common methodological issues, set-theoretic methods³ are proposed to fit better with configurational theory and SHRM objectives.

Conjunctural causation and “multiple effects” in HPWS

HPWSs are often associated with production management policies orientated towards the logic of lean production, processes organizations, flat organizational structure, ICT technologies, extensive training and team working, multi-skilling and multi-tasking, selective hiring, profit or gain sharing, and good and participative industrial relations (Cristini et al., 2003; Leoni, 2013). Taken together, these new traits identify the configuration of modern firms, outside the traditional Fordist configurations (Leoni, 2012) and inspired to the Japanese (or Toyota) model. Both the old and new patterns consist of mutually complementary features; for example, complementarity can be established between the flexibility of production and increasing the breath of the product line, because complementarities stem from the circumstance that employing one element increases the value of employing the others (Milgrom and Roberts, 1995). The synergic effects created by complementarities contribute to the success of the firms, in a way that adopting bundle of complementary practices leads to better performance, instead of adopting a single one. The new work organizations in Western economies has incorporated some, but not all the characteristics of the Japanese model, by preventing its revolutionary scope (Leoni, 2013). Alongside, the introduction and diffusion of new work organization and new HR practices is highly influenced by institutional settings and cultural resistances to change (e.g., Boselie et al., 2003; Solari and Della Torre, 2013). Interestingly, several of the well-known ‘best practices’ are institutionalized in Rhineland countries (such as Germany, France and the Netherlands); for instance, the collaborative work relations in UK firms has favored high involvement work practices, participation and employment security (Paauwe and Boselie, 2003).

At the same time, the extant research on HPWS has neglected the role of managers, their leadership styles, their attitudes and behaviors in favoring the link between HPWS and firm performance, with very few notable exceptions. Indeed, Solari and Della Torre (2013) theoretically argue the role of management integrity as an antecedent and a mediating factor in the relation between new work practices and organizational performance. From this

³ This techniques allow researcher to take into account the fundamental assumptions of configuration theory, such as *equifinality*, causal asymmetry, internal and external fit.

perspective the presence of management integrity enables the adoption of HPWS and enhances the outcome of HPWS over time. By complementarity, employing integrity increases the value of employing HPWS. Such an argument could suggest that, beyond the innovation of management techniques, also managerial culture and attitudes have to be innovated to fit in HPWS and catalyze their positive effects on firm performance.

Definitively, several levels of complementarities can be established between HR practices and organization of production, work organization, institutional and cultural factors, managerial attitudes and behaviours. The state of art suggests that the positive effects of HPWSs are contingent on the presence/absence of other complementary features. This circumstance should lead researchers to pay attention on the joint influence, rather than the single effects of HPWS, culture, institutions, managerial practices, work and production organization on firm performance. Clearly, there is a problem of causal configurations, whereas causes may not be individually sufficient or necessary and configurations represent the intersection of factors whose conjunction causes an outcome (Kogut et al., 2004). However, the lack of overall theoretical arguments about the potential causal mechanisms that link HPWS with better organizational performance does not allow us to establish the existence of a conjunctural causality.

Furthermore, the causal chains become even longer, if one considers that HPWSs have rather controversial effects on workers and their well-being (an overview is provided by Solari and Della Torre, 2013). Generally, theorists of SHRM allocate to workers the role of mediation between HPWS and firm performance (Solari and Della Torre, 2013), but, though the rationale of SHRM states that interrelated and internally consistent HR practices create multiple and mutually reinforcing effects on employee motivation and skill acquisition (MacDuffie, 1995: 198), the ‘employee-organization fit’ should not be neglected (Boselie *et al.*, 2005:80). Indeed, some practices may have positive effects on firm performance, but this does not imply that the companies with superior performance are attractive places in which to work (Guest, 1997). Conceptually, this remark implies the presence of ‘multiple effects’ of HPWS. In this way what happens in the “black box” between HPWS and organizational performance becomes much more dense and difficult to explain. Thus, certain high-performance work practices may result in conflict with work life balance as they negatively impact on job-to-home spillover (White *et al.*, 2003) or they may increase workloads and stress for workers. Unfortunately, empirical research has often marginalized some HR practices related to job security or work life balance (Boselie *et al.*, 2005), which could have a supplementary function by offsetting the deficiencies of others (e.g., total reward or corporate welfare practices).

Interestingly, Fleetwood and Hesketh (2007, 2008) argue that the HRM-performance link involves a problem of interacting causal phenomena, and therefore it requires robust explanation to answer the question ‘Why?’. The authors underline that, with some exceptions, the extant research has mainly focused on the prediction, rather than the explanatory dimension of HRM-performance link, by elaborating on the ‘What’ and ‘How’ questions. They think it is necessary moving toward meta-theoretical options to better understand how HR practices enable people to perform.

Discussion and Conclusion

From the arguments reviewed, three main shortcomings emerge in SHRM literature: 1) a lack of explanatory theory about the link between HPWS and organizational performances; 2) the existence of causal complexity and methodological issues to find support for the configurational approach in SHRM; and 3) the controversial effects of HPWS on workers. The lack of theoretical explanations could be due to the difficulties of finding an overall theoretical argument which takes into account every level of complementarities. Otherwise, it

could depend on the presence of multiple and opposite effects on workers and organization. Hence, taken together, these limitations appear to be closely intertwined. From this perspective, solving one of them may contribute to solve the others, by clarifying the underlying causal mechanisms that link HPWS to organizational performance.

While the usefulness of employing set-theoretic methods in configurational approaches has been broadly described elsewhere (e.g., Kogut et al., 2004; Fiss, 2011), in this section we would discuss that employing set-theoretic methods also may help researchers to scratch the under-theorization in SHRM and to better understand the problem of multiple effects in HPWS.

As noted by Schneider and Wagemann (2012), the theory evaluation in set-theoretic approaches has been rarely used in the literature, despite its extensive treatment by Ragin (1987). The authors point out that set-theoretic methods, and Qualitative Comparative Analysis (QCA) in particular, are inductive in their nature, since they emphasize developing rather than testing hypotheses. Interestingly, the comparison between the theory-derived sufficient path (T) and the solution term of sufficient causal conditions (S) may reveal some meaningful intersections. When theory and empirical findings overlap (TS), a theory is confirmed. Conversely, theory can be extended when empirical cases not expected by theory exist (\sim TS), and it should be delimited when theory-expected cases do not empirically occur (T \sim S) (Schneider and Wagemann, 2012). On the other hand, theory is very significant in QCA because theoretically information is necessary for the choice of cases and attributes and it requires a systematic dialogue of ideas and evidence (De Meur and Rihoux, 2002; Rihoux, 2006). In line with this logic, after preliminary findings, cases, causal condition and outcomes can be added, dropped or reconceptualised (Schneider and Wagemann, 2012).

These characteristics may contribute to both predictive and explanatory dimensions of HRM-performance link. First, set-theoretic methods implicitly lead to theoretically justify which HR practices are actually related to organizational performance (the 'what' question) and to find support for their causal conjunction with other environmental and organizational features (the 'how' question). For instance, the existence of necessary but non-sufficient conditions (singly), automatically implies a conjunctural causation, since they could be sufficient if combined with others (Schneider & Wagemann, 2012). Finally, and what is more interesting, they may allow researchers to develop robust explanations about the underlying causal mechanism linking HPWS with organizational performance. If the major difficulty of configurational analysis is to understand the unspecified and unknown relationships among some elements in reference to a given outcome, set-logic contributes to reduce complexity and to find the minimal number of logical statements (Kogut and Ragin, 2006). In this way, causal relations are investigating by unravelling necessary and sufficient conditions and combinations of these two types of causes (Schneider & Wagemann, 2012). For instance, in line with Cristini *et al.* (2003), a flat organizational structure may be a necessary but not sufficient condition for the implementation of innovative work practices. Other causal conditions, such as a wider process of re-organization or particular institutional settings, may be required. On the other hand, the analysis of set relations may help in unpacking the problem of multiple effects. For instance, some worker-related outcomes (such as well-being, stress, workload) may be involved in the causal conditions leading to higher organizational performance. In turn, they can be chosen as the outcome of other causal analyses in order to better understand the underlying mechanisms of the causal chain which link HPWS with workers and, finally, with organizations. In this way we can add our acknowledge about the existence of both complementary and supplementary (or compensatory) HR practices leading to win-win configurations.

Overall, set-theoretic methods represent viable tools to manage causal complexity and find robust explanations of jointly causal phenomena. Especially, thanks to a continuous dialogue

between theories and evidences, they provide an intermediate route between the over-tested and under-theorized research in HPWS literature.

REFERENCES

- Arthur, J.B. 1994. Effects of human resource systems on manufacturing performance and turnover. *Academy of Management Journal*, 37(3): 670–687.
- Boselie et al. 2003. Human resource management and performance: lessons from the Netherlands. *The International Journal of HRM*, 12(7):1107-25.
- Boselie et al. 2005. Commonalities and contradictions in HRM and performance research. *HRM Journal*, 15(3):67-94.
- Cristini et al. 2003. Flat hierarchical structure, bundles of new work practices and firm performance. *Rivista italiana degli economisti*, VIII(2):313-341.
- De Meur, G., Rihoux, B. 2002. L'Analyse quali-quantitative comparée (AQQCQCA): approche, techniques et applications en sciences humaines. Louvain-la-Neuve: Academia-Bruylant.
- Delery, J.E., Doty, D.H. 1996. Modes of theorizing in strategic human resource management: tests of universalistic, contingency, and configurational performance predictions. *Academy of Management Journal*, 39(4): 802-835.
- Delery, J.E. 1998. Issues of fit in strategic human resource management: implications for research. *HRM Review*, 8(3): 289-309.
- Fiss, P.C. 2011. Building Better Causal Theories: A Fuzzy Set Approach to Typologies in Organization Research. *Academy of Management Journal*, 54(2):393-420.
- Fleetwood, S., Hesketh. 2007. HRM-Performance research: under-theorized and lacking explanatory power. *The International Journal of HRM*, 17(12):1977-1993.
- Fleetwood, S., Hesketh. 2008. Theorising under-theorisation in research on the HRM-Performance Link. *Personnel Review*, 37(2):126-144.
- Guest, D.E. 1997. Human resource management and performance: a review and research agenda. *The International Journal of HRM*, 8(3):263-276.
- Huselid, M. 1995. The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, 38(3): 635–672.
- Ichniowski et al. 1997. The effects of human resource management practices on productivity: a study of steel finishing lines. *American Economic Review*, 87(3): 291–313.
- Leoni, R. 2012. Workplace design, complementarities among work practices, and the formation of key competencies: Evidence from Italian employees. *ILR Review*, 65(2):316-349.
- Leoni, R. 2013. Organization of work practices and productivity: an assessment of research on world – class manufacturing, in Grandori A. (ed.), *Handbook of Economic Organization. Integrating Economic and Organization Theory*, Edward Elgar, Cheltenham.
- Kogut et al. 2004. Prototypes and strategy: assigning causal credit using fuzzy sets. *European Management Review*, 1:114-131.
- Kogut, B., Ragin, C.C. 2006. Exploring complexity when diversity is limited: Institutional complementarity in theories of rule of law and national systems revisited. *European Management Review*, 3(1): 44-59
- MacDuffie, J.P. 1995. Human resource bundles and manufacturing performance: organizational logic and flexible production systems in the world auto industry. *Industrial and Labor Relations Review*, 48(2):197-221.

- Miles, R.E. and Snow, C.C. (1984). Designing strategic human resources systems. *Organisational Dynamics*, summer:36-52.
- Miller, D., Friesen, P. 1984. *Organizations: A Quantum View*. Englewood Cliffs, N.J.:Prentice-Hall.
- Milgrom, P., Roberts, J. 1995. Complementarities and fit strategy, structure and organizational change in manufacturing. *Journal of Accounting and Economics*, 19:179-208.
- Osterman, P. 1994. How common is workplace transformation and who adopts it? *Industrial and Labor Relations Review*, 47:173-188.
- Paaewe, J., Boselie, P. 2003. Challenging ‘strategic HRM’ and the relevance of the institutional setting. *HRM Journal*, 13(3):56-70.
- Pfeffer, J. 1994. *Competitive Advantage Through People*. Harvard Business School Press, Boston, Mass.
- Ragin, C.C. 1987. *The Comparative Method: Moving beyond Qualitative and Quantitative Strategies*. University of California Press, Berkeley.
- Rihoux, B. 2006. Qualitative Comparative Analysis (QCA) and Related Systematic Comparative Methods: Recent Advances and Remaining Challenges for Social Science Research. *International Sociology*, 21(5):679-706.
- Schneider, C. Q., Wagemann, C. 2012. **Set-Theoretic Methods for the Social Sciences. A guide to Qualitative Comparative Analysis**. Cambridge University Press.
- Schuler, R.S., Jackson, S.E. 1987. Linking Competitive Strategies with Human Resource Management Practices. *Academy of Management Executive*, 1(3):209–13.
- Solari, L., Della Torre, E. 2013. From practices to processes: High performance work systems and Integrity. In Amann, W., Stachowicz-Stanusch (eds), *Integrity in Organizations. Building the foundations for humanistic Management*. Palgrave Macmillan, Basingstoke.
- Walton, R. E. 1985. From control to commitment in the workplace. *Harvard Business Review*, 63(2):77–84.
- White et al. 2003. “High performance” management practices, working hours and work-life balance. *British Journal of Industrial Relations*, 41(2):175-195.
- Wright, P. M., McMahan, G. C. 1992. Theoretical perspectives for strategic human resource management. *Journal of Management*, 18: 295–320.