

The Way Organizational Models Shape Human Resource Management Practices and the Perceptions of Workers

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Abstract

The main aim of this study was to analyse the way organizational models shape human resource management practices in firms linked to technology-intensive sectors. We used multiple-case study methodology. Four firms were chosen for the case study. The methodology included the use of a series of data collecting techniques, namely: interviews with HRM directors, questionnaires to workers, documental analysis and observation. Our main findings were, first, that the sector of activity, understood in societal terms, emerges as an important factor of isomorphism between the firms. This isomorphism is due to the necessity of firms to comply with the Quality Management requirements and the demands of clients. Second, the firms that have adopted the “lean” model have similar HRM systems and similar conceptualizations of human capital. Both firms have codifying HRM models and both conceptualize their human capital as having low value and singularity. Third, the perception of access to information and the perception of job enrichment are the two factors that differentiate employees' perceptions about work. These factors are, however, shaped by team-work. Team work seems to be responsible for a higher perception of access to information and to supportive leadership. The perception of job enrichment is correlated to the perception of an innovative culture.

Introduction

The main aim of this study was to explore the way organizational models shape human resource management practices in firms linked to technology-intensive sectors in Portugal. Several factors such as globalization, the increase of economic competition and the differentiation of consumption mutually conditioned by technological and employment innovations have contributed to changes in organizational models and work settings. Firms in uncertain and highly competitive environments are required to be more flexible and proactive, i.e., to be able to anticipate and/or to respond with efficacy and efficiency to rapid technological and market changes. Although flexible work practices and new forms of work organization have been highly promoted as key factors for competitive advantage, several studies have shown that the degree of adoption of these practices in some sectors is far from what would be expected. However, firms linked to technology-intensive sectors seem to be more likely to adopt flexible work practices and new forms of work organization, because of the demands and changes related to these sectors, namely quality demands, rapid market changes and technology development. In Portugal, despite the growing interest in HRM as a new academic domain and/or as a range of practices crucial for organizational performance, the field of HRM as a consistent body of knowledge is still not sufficiently systematized. Few

studies focus on a more holistic and contextual approach of HRM. Therefore, and considering the importance to accumulate knowledge in this field, in this study we decided to do an exploratory research, using multiple-case study methodology, in order to be able to identify and to relate the factors that shape HRM practices in Portuguese industrial firms. We also analysed the perceptions of workers' about job characteristics and organizational values in order to understand how HRM and work organization models are implemented. Thus, we used a series of data collecting techniques, namely: interviews with HRM directors, questionnaires to workers, documental analysis and observation.

HRM: conceptualizations and perspectives

Although HRM has acquired a recognized status in today's socio-economic and organizational contexts, the field of HRM has not yet established itself as a consistent institutionalized body of knowledge. HRM appears to be embedded in some ambiguities and paradoxes. As Keenoy (1997) points out “(...) the more we study HRism, the more we find out about it and the more we elaborate it, the more elusive and obscure it becomes”. The lack of consensus is apparent in the discussion about the concept “HRM” itself. This discussion can be typified in three conceptualizations of “HRM”, namely: as representing a new conceptualization of the personnel function (Brewster and Larsen, 2000; Storey, 1995); as an evolution and an embellishment of personnel administration (Torrington, 1995; Mahoney and Dekop, 1996); as mere rhetoric or mere language difference that aims to convey a set of “WASP” values, such as individualism and work ethics, and to credit the personnel function (Legge, 1995). The different conceptualizations of HRM also seem apparent in the different perspectives of HRM.

The different perspectives seem to highlight a shift from a more micro and universalistic approach to HRM to a more macro and holistic approach to HRM.

Table 1. Different perspectives of HRM

Different perspectives	Focus	Authors
Best-fit	Causal relationship between HRM and organizational performance	Schuler & Jackson (1987); Miles & Snow (1984); Delery & Doty (1996); Guest (1997); Pfeffer (1994); MacDuffies (1995)
Contextual	Study the viability of the emergence of a European HRM model. Focus on contextual factors	Brewster (1995); Sparrow & Hiltrop (1997); Claus (2003)
New institutionalism	Factors that influence the similarities and differences between firms	DiMaggio & Powell (1983); Scott & Meyer (1983)
Political	The role of the actors	Pichault & Schoenaers (2003)
Resource-based	Focus mainly on internal factors. New approach to Strategic HRM.	Boxall & Purcell (2000); Kamoche (1996); Lado & Wilson (1994); Lepak & Snell (1999); Grant (1998)

The shift to a more holistic approach seems to be apparent in the different theories on strategic human resource management (SHRM). We name them best-fit perspectives because

they are based on the underlying assumption that there is a causal relationship between HRM practices or systems and organizational performance. Delery and Doty (1996) typified SHRM theories in three perspectives: universalistic, contingency and configurational. Whereas, the universalistic perspective focuses on the prescription of best-practices that will warrant the organization high performance, the other two perspectives underline more holistic models on SRHM. The contingency perspectives assume the relationship between HRM practices and organizational development is mediated by contingency factors, such as organizational size; seniority; technology; capital intensity; sector of activity. The configurational perspectives assume that the organizational performance depends on how close the set of HRM practices is to an ideal model of HRM.

The contextual perspectives emphasize the need for more holistic approaches and focus on a larger number of variables. These include (Sparrow and Hilthrop, 1997; Claus, 2003; Brewster et al., 2004): (a) the environment dimension: international; national; national HRM context: labour legislations and social security provisions; differences in business structure and systems, the degree of state ownership; the fragmentation of industrial sectors; (b) the organizational dimension: organizational strategy, HRM strategy, HRM practices such as labour relations, organizational communication and development. Within the contextual perspectives, the “new institutionalism approach” (DiMaggio and Powell, 1983) presents the concept of isomorphism to explain why and how organizations resemble similar organizations in their environment to obtain legitimacy in their markets. There are two types of isomorphism: competitive and institutional. Competitive isomorphism is linked to a system of rationality which emphasizes market competition, niche change and fitness measures. Whereas institutional isomorphism is an alternative perspective that focuses on three mechanisms of decision-making in organizations: coercive mechanisms (change stems from political influence and the problem of legitimacy); mimetic mechanism (change results from standard responses to uncertainty); and normative mechanisms (change stems from professionalization).

The resource-based theory presents itself as an alternative to traditional SHRM. It emphasizes the importance of heterogeneity of internal factors to obtain competitive advantage. These must be (Barney, 1991): unsubstitutable, inimitable, valuable and rare. The resource-based theories can be divided into two groups (Wright et al., 1994): (1) the theories that are centred on the HR of the firm, that is, on the “firm's human capital pool”; (2) the theories that are centred on HRM practices, used as instruments to manage this type of resources. In this perspective we highlight Lepak and Snell's (1999) human capital theory. Crossing the value of human capital with the singularity of human capital, Lepak and Snell (1999) typified four human capital models: (1) development model (high value and high singularity): it's based on commitment of employees and the promotion of training and career development; (2) acquisition model (high value and low singularity): based on mutual gains and on a symbiotic relationship between organization and employee; (3) alliance model (low value and high singularity): based on partnership and collaboration; (4) contract model (low value and low singularity): based on transactional labour relations that are economically based.

Pichault and Schoenaers (2003) present a more holistic and integrative model. The authors integrate a contingency approach with a political approach and take into consideration the role of organizational actors. They define five HRM models: (1) arbitrary model: centralized on top management; practices are based on the good will of top management; assessment and recruitment is informal, as well as compensations/rewards (2) codifying model: based on the definition and formalization of HRM criteria to guarantee equal rights; equal pay for equal jobs; rewards and promotions based on seniority; (3) value model: a volatile model based on the principles of corporate culture; (4) agreement models: a collegial model in which actors

participate in the definition of policies and practices; (5) individualising model: based on the personalization of labour relationships. Criteria are formalized and it integrates both individual and collective practices.

Flexible work practices and work organization models

New forms of work organization and flexible work practices have been highly promoted as solutions for organizations to obtain competitive advantages, because they enable workers' skill development and empowerment. Examples of new forms of work organization and new practices include team-working, joint problem solving, strong outcome-based appraisal systems, involvement in job design, multitasking, flexible working and effective structures for information and consultation. In industrial settings the new forms of work organization include lean production and autonomous work groups. Godard (2001) distinguishes between "individualized lean" (lean with little or no team work) and "lean production" and post-lean production (that is equivalent to autonomous work groups"). The first two ("individualized lean" and "lean") are work forms which follow the *just-in-time* philosophy. Although these new forms of work organization and practices are widely known, several studies have confirmed that they have not been adopted in a systematic or coherent way by organizations. This seems to emphasize different factors that shape their adoption. Amongst these factors are: the different conceptualizations academics and professionals have of these models; the different organizational strategies; the sector of activity (Kovács, 1998; EU Presidency, 2003). The sector of activity seems to be an important factor that shapes the introduction of flexible work practices. Laursen (2002) and Lorenz and Valeyre (2004), for example, came to the conclusion that new HRM practices that lead to better innovation performance are more effective and applicable in knowledge-intensive sectors of the economy.

Methodology

In order to achieve our main aim that was to explore the way organizational models shape human resource management practices in firms linked to technology-intensive sectors in Portugal, we decided to use multiple-case study methodology. We chose four firms. Three firms linked to technology-intensive sectors, namely the automobile industry. And one firm that is knowledge-intensive firm, namely a software production firm. Our specific aims were to: (1) identify the factors that shape HRM models; (2) analyse the work organization models and the use of flexible work practices; (3) analyse the workers' perceptions on job characteristics and organizational values. Based on a contextual approach of HRM, and taking into account the contributions of the different perspectives, our variables and dimensions of analysis were: (1) organizational factors: activity; work organization; HR characteristics; (2) workers' perceptions of work: job characteristics; leadership style; role clarity; organizational values; (3) HRM models; practices; level of formalization; conceptualization of human capital. We used different data collecting techniques, namely: interviews with HRM Directors; questionnaires to workers; documental analysis and observation. We applied qualitative and quantitative data analysis.

Analysis and discussion of results

The results show that the firms that have lean production models (Cases B and C), have a higher degree of isomorphism. This isomorphism seems to be reflected both in the type of HRM model and in the conceptualization of human capital. Both firms in these cases have HRM systems that can be classified, according to Pichault and Schoenaers (2003), as codifying models. They also share the same conceptualization model of human capital, i.e., a contract model. Notwithstanding that in both cases the permanent contract is predominant, the set of HRM practices (namely, the use of numeric flexibility) and the HR characteristics (low education levels, i.e., elementary school level) seem to reveal that in both firms the conceptualization of human capital is that of low singularity and low value. The differences in Cases B and C are in gender predominance and the type of lean production. In Case B the work organization fits what Godard (2001) describes as “individualized lean” and done by women. Whereas, in Case C there is “lean production” with team work done by men. Moreover, Case B, where work is simpler and requires less qualifications, differs from all the other cases in gender predominance. The analyses of the prescribed, i.e., formalized practices reveals that the degree of isomorphism (similar practices and processes) is higher among Cases A, B and C. This is due to the Quality certification requirements and due to the fact that all firms are linked to the same societal sector (Scott and Meyer, 1983), namely, the automobile sector.

Table 2. Characterization of the four cases

Cases	Case A	Case B	Case C	Case D
Activity	Production of molds	Production of components	Transports and logistics	Production of software
Work Organization	Individual/multi-tasking	Lean (assembly line)/just-in-time	Lean (team work)/just-in-time	Autonomous work groups
Human Resources	Predominantly male; high and elementary school level; permanent contract	Predominantly female; elementary school level; permanent contract	Predominantly male; elementary school level; permanent contract	Predominantly male; university graduates; temporary
HRM model	Arbitrary model	Codifying model	Codifying model	Value Model
Human Capital Model	Development	Contract	Contract	Aquisition

Cases A and D differ from the previous two and from each other in both work organization models and HRM models. Both cases, comparing to Cases B and C, require more qualified workers. However, the conceptualization of human capital and HRM models are very different. Case A being a family firm that produces molds has an arbitrary model of HRM, very much centered on authority and discernment of the entrepreneur. Also, the specificity of the firm's activity (mold production), in which traditionally labour is not formally trained but learns on the job and in the organization, supports the fact that the firm adopts a development model of human capital. This is reinforced by the fact that this firm is in a small community and employees most of the families in the community. In Case D, the firm is a well-known knowledge-intensive Portuguese firm that produces for the global market. Although the firm employs highly educated workers the fact that it has a close relationship, and in some cases partnership, with higher education institutions enables it to have easy access to highly qualified and educated students. Thus, this firm opts for an acquisition model of human

capital (Lepak and Snell, 1999). Moreover, as most of these employees have recently obtained their diplomas and have little professional experience, the firm has a value model (Pichault and Schoenaers, 2003), i.e., it focusses its practices on creating a corporate culture and the socialization of its employees.

We received 170 replies to our questionnaire about the perceptions of job characteristics and organizational values, which corresponds to 65.4% of our sample defined for convenience. Applying factor analysis¹ we extracted four factors on the perception about job characteristics, namely: (1) job enrichment, defined as the work that is non-repetitive, requires autonomy, variety of skills, decision making, team work and enables personal development; (2) access to information, defined as formal and informal communication about HRM, work and organizational practices; (3) supportive leadership, defined as the leader that takes into consideration workers' opinions, listens to them and acknowledges their efforts; (4) impact of training on personal and organizational performance and development. The correlation between the four factors and the socio-demographic characteristics of workers show the following: (a) the perception of job enrichment has a positive and significant correlation² with the level of education and a negative significant³ correlation with gender; (b) the perception of access to information has a positive significant correlation⁴ with level of education, type of contract and gender and a negative significant correlation⁵ with seniority in the function and in the firm; (c) there were no significant correlations with socio-demographic characteristics of workers' with either the perception of supportive leadership and the perception of impact of training on personal and organizational performance and development.

The analysis of the significant differences in the perceptions of workers' among the four cases reveal that, on the overall, the more significant differences are between Cases B and D. These cases differ significantly in the perception of job enrichment and the perception of access to information. These two cases (B and D) represent almost two extreme forms of work organization, namely the "individualized lean", with assembly line, that in terms of work content is similar to the traditional taylorist model, and the work in autonomous work groups which requires knowledge workers. Although work content seems to be an important factor for the perception of job enrichment, there appears to be an effect of team work in the perception of job enrichment, understood as a job that enables self and professional development. This effect of team work seems to explain the non-significant differences between Cases A and C, as well as between Cases C and D. In Case A work requires more qualified workers and multitasking, whereas in Case C work is done in teams with supervision, having a poorer content and requiring less qualifications. Nonetheless, contrary to Case B, that shows significant differences with Cases A and D, these differences are not significant with Case C.

¹ Rotation Method: Varimax with Kaiser Normalization; Kaiser-Meyer-Olkin Measure of Sampling Adequacy: .693.

² Pearson Correlation, **. Correlation is significant at the .01 level (2-tailed).

³ Pearson Correlation, **. Correlation is significant at the .01 level (2-tailed).

⁴ Pearson Correlation, **. Correlation is significant at the .01 level (2-tailed).

⁵ Pearson Correlation, **. Correlation is significant at the .01 level (2-tailed).

Table 3. Significant differences among cases in workers' perceptions

Factors	Significant differences⁶ (one way Anova, multiple comparisons)
Job enrichment	Between Cases B and D, and between Cases A and B. No significant differences between Cases A and D nor between Case C and the other Cases (multi-tasking important for perception for job enrichment).
Access to information	Between Cases A and C, between Cases C and B and between Cases B and D. No significant differences between Cases C and D.
Supportive leadership/impact of training	No significant differences
Organizational values (innovation and rules)	Innovation: Between Cases B and D, and Between B each of them and Cases A and C. Rules: between Case C and other Cases.

The perception of access to information is significantly correlated with formal communication. Nevertheless, the factors that appear to have some influence in the differences in workers' perceptions among cases are team work HRM models. No significant differences were found between the two cases with team work, namely Cases B and D. Significant differences were found among Case A and the three other cases. These differences appear to stem from the fact that this firm has an arbitrary model of HRM, centered on the entrepreneur, with little formalization and/or transparency of rules and norms. The existence of non-significant differences between Cases B and C seems to be explained by two factors, namely the fact that both have codifying HRM models, with high formalization of practices, and also because the lean production model implies the adoption of a number of formal participation practices. However, the significant differences between Cases B and D seem to emphasize not only the differences in work organization and the socio-demographics characteristics of workers' in these two firms, but also the differences in HRM models. Whereas in Case B the firm has a codifying model and being a Japanese firm a set of formal participation practices (normative commitment), in Case 4 the firm has a value model that induces affective commitment (Meyer and Allen, 1997). No significant statistical differences were found for perception of supportive leadership and impact of training. Nonetheless, the cases with team work have higher scores in these two factors. This leads us to hypothesize that team work combined with the perception of access to information, might be an enabler of empowerment. This would corroborate Spreitzer's (1996) theory that empowerment depends not only on team work but mainly on role clarity, thus access to information. As to organizational values, the perception of job enrichment seems to have some effect on the perception of an innovative culture. This would explain the differences between Cases A and C. The codifying model of HRM itself seems not to be sufficient for the perception of a culture based on rules, as we found no evidence that in Case B there was a perception of a "rule culture".

Conclusions

Our main findings were, first, that the sector of activity, understood in societal terms, emerges as an important factor of isomorphism between the firms. This isomorphism is due to the necessity of firms to comply with the Quality Management requirements and the demands of

⁶ ** The mean difference is significant at the .05 level.

clients. Second, the firms that have adopted the “lean” model have similar HRM systems and similar conceptualizations of human capital. Both firms have codifying HRM models and both conceptualize their human capital as having low value and singularity. Third, the perception of access to information and the perception of job enrichment are the two factors that differentiate employees' perceptions about work. These factors are, however, shaped by team-work. Team work seems to be responsible for a higher perception of access to information and to supportive leadership. The perception of job enrichment is correlated to the perception of an innovative culture.

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