Int. J. of Human Resource Management 15:6 September 2004 935–958

Human resources management in Spain: is it possible to speak of a typical model?

Carmen Camelo, Fernando Martín, Pedro M. Romero and Ramón Valle

Abstract There is no shortage of literature studying the relationships between the various processes of human resources management, considered individually, and the strategy of the company. Nevertheless, studies that adopt a joint approach are scarce. In this study, working from the universalist, contingent and configurational perspectives, we seek to identify the possible existence of human resources management models and their links with the strategy of the company. Empirical analysis conducted with 130 industrial companies reveals three distinct models of human resources management but with behaviours independent of the strategies followed by the companies. At the same time we find, within each model, orientations of particular processes that are common among them and are thus characteristic of a universalist approach.

Keywords Strategic human resource management; empirical analysis; Spanish case; human resource management system.

Introduction

The literature has emphasized the important role played by the human component in the competitiveness and response capacity of organizations, and this is reflected in numerous publications and research studies that have appeared in recent years (Barney, 1991; Barney and Wright, 1998; Wright *et al.*, 1994). According to this view, human capital is proposed as one of the key resources on which companies build their competitive advantage (Becker and Gerhart, 1996; Boxall, 1996; Tyson, 1995; McWilliams *et al.*, 2001).

The impact of human resources management (HRM) on the nature and results of organizations has been the subject of various theoretical propositions (Boxall and Steeneveld, 1999; Delery and Doty, 1996; Wright and McMahan, 1992; Huselid, 1995; Ferris *et al.*, 1998; Brewster, 1999), and has been embodied in what has been called strategic human resource management (SHRM). Among the different theoretical positions discussed, the universalist, contingent and configurational approaches are the ones that have tended to dominate this debate (Delery and Doty, 1996; Guest, 1997).

From the universalist perspective, it is argued that some HRM practices, classed under the heading of high performance work practices, are intrinsically better than others and that, for this reason, all companies should adopt them (Pfeffer, 1994; Osterman, 1994). Under this approach, the question for debate is whether that set of practices forms

Carmen Camelo, Universidad de Cádiz, Spain (e-mail: maricarmen.camelo@uca.es). Fernando Martín, Universidad de Cádiz, Spain (e-mail: fernando.martin@uca.es). Pedro M. Romero, Universidad de Cádiz, Spain (e-mail: pedromiguel.romero@uca.es). Ramón Valle, Universidad Pablo de Olavide, Sevilla, Spain (e-mail: rvalcab@dee.upo.es).

The International Journal of Human Resource Management
ISSN 0958-5192 print/ISSN 1466-4399 online © 2004 Taylor & Francis Ltd
http://www.tandf.co.uk/journals
DOI: 10.1080/0958519040001677250

a coherent model of HRM, a configuration (configurational perspective); the question is whether all the elements that make up human resources practices show internal consistency (horizontal fit) or, on the contrary, such a model does not really exist, because only some practices show a universal character (Huselid, 1995; Delaney and Huselid, 1996; Delery and Doty, 1996; Pfeffer, 1994, 1998).

The contingent approach considers that, in order to get the best results, there should be consistency between the HRM policies and other organizational variables. But the approach could be considered under alternative perspectives: the fit of the each individual HR practice, independently, with these other variables or the configuration as a set of practices (horizontal vs vertical fit) (Balkin and Gomez-Mejía, 1987a, 1987b, 1990; Gomez-Mejía, 1992; Schuler and Jackson, 1987; Peck, 1994; Martín *et al.*, 1999; Valle *et al.*, 2000, Doty and Glick, 1994; Delery and Doty, 1996). Therefore, the configuration perspective can adopt the universalist or the contingent form.

From the contingent perspective, the variable usually employed to explain the behaviour of organizations in respect of their HRM policies and practices is the strategy of the company (Wright *et al.*, 2001). The basis on which such a choice is justified is that, when the human resources policies or the model of human resources (under the configurational perspective) present a degree of consistency with the strategy, the company will achieve better results (Delery, 1998).

Most of the studies undertaken at the empirical level have adopted a contingent approach, being centred on the analysis of the relationship between type of strategy and some of the individual HRM processes employed (Sonnenfeld and Peiperl, 1988; Balkin and Gomez-Mejía, 1987a, 1987b, 1990; Brousseau *et al.*, 1996; Martín *et al.*, 1999; Valle *et al.*, 2000). There are, however, few studies that, while adopting a configurational view of the HRM function, have been able to show evidence of the existence of models that are contingent in respect of the type of corporate strategy (Miles and Snow, 1984; Schuler and Jackson, 1987; Snell and Dean, 1992; Schuler, 1992; Peck, 1994; McDuffie, 1995).

Our purpose in this paper is to formulate, on the basis of the existing literature, a series of hypotheses aimed at contrasting the behaviour of Spanish industrial companies in respect of the management of human resources. In particular, we set out to identify, first, whether it is possible or not to speak of one or more models of HRM (a configurational approach) and if, in this latter case (a second aspect of the research), the existing models are linked to the strategies of the companies (a configurational and contingent approach). The level of analysis utilized is that of the total set of employees of the organization, excluding the executives.

The HRM processes that we have included in our analysis are: recruitment, selection and appointments; training; career planning, personnel evaluation; and compensation. The contingent variable used will be the type of strategy of the company. In respect of this latter, although most of the previous studies reviewed utilize known typologies of strategy (Rumelt, 1974; Miles and Snow, 1978; Gerstein and Reisman, 1983; Porter, 1980), we have opted to identify the strategy of the company from a consideration of the resources and competences with which it actually competes in its chosen markets (Wernerfelt, 1989; Barney, 1991, 1992; Mahoney and Pandian, 1992). The empirical analysis has been conducted on a population comprised of the 500 largest Spanish industrial companies with more than 500 employees.

Theoretical framework and hypotheses

Several previous studies that adopt the universalist perspective stress not only the importance attributed to certain HRM practices for improving the knowledge, abilities and

competences of the employees of the company and the effect of such practices on factors like motivation, absenteeism, retention of employees, but also the need for complementarity, or an internal fit, between these practices (Pfeffer, 1994; Freund and Epstein, 1984; Arthur, 1992; Delaney *et al.*, 1989; Huselid, 1995; McDuffie, 1995; Youndt *et al.*, 1996). The most commonly accepted options chosen in the literature are those grouped around what have come to be termed 'high performance work practices'; these include recruitment and selection procedures, systems of compensation by incentives (bonus schemes), training and employee participation schemes, job security and team work (Huselid, 1995; Jones and Wright, 1992; Pfeffer, 1994, 1998). Delery and Doty (1996) identify seven practices that have been considered in the literature to be strategic practices, in the sense that they improve the performance of those companies that adopt them. These seven practices are: the internal provision of career opportunities, formal systems of training, employee evaluation methods and measurement, profit participation schemes, safety at work, mechanisms for participation in decisions and job definition.

Set against this positioning, the arguments put forward by those who defend the contingent approach are centred on the necessity of linking the HRM practices employed with some external or internal variable. They reject the existence of 'a single best way': on the contrary, they maintain that the best HRM system design will depend on contextual factors. In this line of argument, in the majority of the literature, the competitive strategy of the company has been chosen as the principal contingent variable. The fit between this variable and the human resources policies determines the performance and constitutes the source of sustainable competitive advantage for the company (Huselid, 1995; Jackson and Schuler, 1995; Schuler, 1992; Wright and McMahan, 1992).

In studies considering individual HRM processes, it has been found that aspects related to formal training, such as expanding the employee capabilities required by the company, their levels of specialization and diversity of skills, the orientation of learning towards team or group working, the planning of the training process in order to meet future needs or the direct improvement of productivity, are all closely related to the strategies of companies (Peck, 1994; Raghuram and Arvey, 1994; Jackson *et al.*, 1989; Jackson and Schuler, 1995; Sanz *et al.*, 1997; Snell and Dean, 1992; McDuffie *et al.*, 1995; Collis and Montgomery, 1995; Delery and Doty, 1996; Valle *et al.*, 2000). Most of the works cited above utilize the typology of strategies proposed by Miles and Snow (1978) and by Schuler and Jackson (1987),[1] and, in some cases, authors differentiate between flexible and traditional types of production strategy. Although not all reach the same conclusions, they do appear to support the argument that companies with a strategy based on creative and innovative capacities demand a type of training that is multi-skilled, centred on group working methods and oriented towards the company's identified future needs.

Career policy, understood as the set of variables that are controlled and planned by the organization and that determine a particular model of personnel management, has also been put forward as presenting a definite relationship with the strategy of a company. Some of the dimensions that characterize career-planning models established in the literature are: the planning and formalization of personnel movements, the criteria utilized and the degree or level of communication. As in the case of the training process, links have been sought between the various different models of career policy and the strategies of companies; again, in this case, no consensus with regard to the results appears to have been reached (Stumpf, 1988; Wils *et al.*, 1993, Brousseau *et al.*, 1996; Sonnenfeld and Perperl, 1998; Sanz *et al.*, 1997; Martín *et al.*, 1999, 2001).

Several authors also state that the better the fit between the strategy of the organization and its compensation policies, the greater will be the contribution of the reward system to the results and performance of the company (Rajagopalan, 1997; Balkin and Gomez-Mejía, 1987a, 1987b, 1990; Gomez-Mejía, 1992; Milkovich, 1988; Gomez Mejía and Welbourne, 1988, 1989; Sanchez Marín and Aragón Sanchez, 2002, 2003). The analyses made of compensation policies have been centred basically on the study of attributes such as levels of remuneration, fixed vs variable components, systems of incentives, the transparency of the system, etc. Considering the orientations taken by these compensation system components, algorithmic and other experimental models of compensation have been identified (Gomez-Mejía and Welbourne, 1988; Balkin and Gomez-Mejía, 1990, 1992). Whereas algorithmic models are matched to the characteristics of defensive strategies, experimental ones are matched to prospective strategies, using the terminology of Miles and Snow (1978).

Some studies have related the level of salaries with the strategy of the company (Carrol, 1987; Finkelstein and Boyd, 1998), with employees' capabilities and skills (Miles and Snow, 1984), with the temporal horizon of the results (Rajagopalan and Finkelstein, 1992; Rajagopalan, 1997) and with the fixed vs variable composition (Alexander and Zhoy, 1995).

In Spain, the studies carried out under the contingent approach have taken the strategy of the company as the independent variable, and the conclusions reached are partially coincident among themselves and with those indicated previously (Sanz *et al.*, 1997; Romero and Valle, 2001). The results of recent research studies, which aim to explain whether the adoption of the so-called 'high performance work systems' (configurational approach) is linked to or dependent on certain organizational variables or on the activity sector, reach different conclusions. Some find a certain relationship between the adoption of such practices and the management style and culture of the company, but not with the strategy, size or age of the company (Ordiz, 2002); in other cases, it is found that organizations belonging to multinational groups, with a strategy of high quality and high degree of automation of operations, show a greater tendency towards the use of high performance practices (Bayo Moriones and Merino, 2002); Roca Puig *et al.* (2002) observe, from a universalist perspective, that management by commitment has positive effects on the results of the organization, independently of the sector. However, when they adopt a contingent approach, it is observed that the sector appears as a modulating variable in the relationship between strategy and HRM practices (in the floor-paving and wall-tile sector, management by commitment shows positive effects independently of the strategy followed by the company, costs or differentiation; in the hotel sector, a certain incompatibility appears to exist between management by commitment and the cost strategy). Lasierra (2001), in a wide-ranging study, finds relationships between competitive strategy and system of employment but not with HRM practices. Only functional flexibility appears to be connected with the strategy of quality.

In short, the review made of the literature reveals that most of the research studies that analyse the connections between generic strategy and human resources management do so in an individualized way, considering human resources practices in isolation or configurations already established by other authors (e.g. high performance work systems). There are not many, however, that adopt a joint, global perspective in the treatment given to human resources management, indicating which is the most coherent configuration in accordance with the type of strategy (Miles and Snow, 1984; Schuler and Jackson, 1987; Besseyre des Horts, 1987; Peck, 1994).

The configurational approach considers that, in order to understand the behaviour of the company in relation to its human resources, different HRM practices and policies

cannot be analysed in isolation from one another. On the contrary, these elements constitute a whole that is related to one external variable (Delery, 1998). In this view, the synergies derived from the interactions between the dependent variables produce more substantial effects than are found by considering the direct relationships between each dependent variable and the independent variable (Doty *et al.*, 1993). For Delery and Doty (1996), the configurational perspective has two principal effects. First, the holistic principle of investigation is assumed: this permits the identification of unique models of human resources that are postulated as being of maximum efficiency and constitute ideal types; these configurations correspond more to theoretical constructs than to phenomena observable in reality. Second, the principle of equifinality is assumed, meaning that different configurations may lead to optimum efficiencies (Delery and Doty, 1996). The synergistic effects of these configurations are not linear but circular, and cannot be explained by means of the traditional bi-variant contingent models; it is thus necessary to consider higher-order interactions (Doty and Glick, 1994).

From the preceding discussion, and with the object of providing a global view of the behaviour of human resources management of industrial companies that operate in Spain, we have formulated a set of four hypotheses by which we seek to identify whether the orientation that these companies adopt in their HRM is configurational, with universalist vs contingent behaviour, and allows us to speak of and identify models of human resources management. These hypotheses read as follows:

H1 (universalist hypothesis): There exist specific human resources practices that, independently of the strategy of the company, are present with the same orientation in all the organizations.

H2 (configurational and universalist hypothesis): The coherence between the orientations given to the processes of human resources management allows one to speak of systems or models of management (horizontal fit).

H3 (configurational and contingent hypothesis): The model of human resources management designed by the company is related to the competitive strategy selected (horizontal and vertical fit).

H4 (contingent hypothesis): There are orientations in human resources management practices that, when analysed individually, maintain a common relationship with the competitive strategy of the company (vertical fit).

Empirical research: methodology utilized

The methodology used to collect information was the postal survey. Two questionnaires were prepared and sent, respectively, to the director general (managing director) and to the senior executive responsible for the human resources management of the company. The research was conducted on a total population of 500 large Spanish industrial companies with more than 500 employees, selected from the 'Fostering of Production' database. The decision to select companies with more than 500 employees is based on the understanding that this size measure influences the existence both of human resources policies and of executives with particular responsibility for this function. Having first selected from the database the population to form the basis of the study, the companies were contacted by telephone to request their participation. After receiving the initial response to

the questionnaires, from eighty-five companies, contact was again made with those who had originally agreed to collaborate but had not in fact done so. This produced responses from another forty-five companies. Most of those who did not respond gave diverse reasons, referring to the time involved, to the large number of questionnaires they received or simply saying that they were not interested in collaborating with universities. But it is important to state that the follow-up telephone interviews with representatives of all the firms solicited provided sufficient information to conclude that the 'non-responding' firms do not constitute a special case or possess particular characteristics which may bias the results reported here. This is very typical of the Spanish environment where collaboration between industry and university research is problematic. In conclusion, responses were obtained to a total of 260 questionnaires, corresponding to 130 companies, representing 26 per cent of the population. Before being sent out definitively, the questionnaire was tested in five organizations of similar size, in order to make sure the questions were valid. In terms of scope, the analysis of human resources management undertaken is centred on the personnel of the company rather than on the management. The reliability of the questionnaire was tested by means of Cronbach's alpha.

The questionnaire sent to the executive responsible for human resources included not only questions of a general character relating to the HRM function but also five items dealing with the training policy, six items on career policy, twenty on the system of remuneration, three relating to the process of recruitment and selection, and four on personnel evaluation. In most of the items, a Likert scale of 1 to 5 is used. Only in the case of the questions relating to recruitment, selection and appointments and to the orientation given to the evaluation of personnel (short vs long term; by individual vs by group) are dichotomous variables utilized. The items for each process seek to identify the possible orientations adopted for each process and the models of human resources management followed by the companies.

Since the second objective of the research was to detect whether the HRM models matched the corporate strategy options adopted by the companies, a questionnaire was drawn up to enable us to identify the type of strategy. In accordance with the resources-based view, the various resources and capabilities that a company has acquired and developed over the course of its history are the main determinants of its competitive advantage and, therefore, should constitute the basis on which its strategies are defined and built (Wernerfelt, 1984; Barney, 1991; Mahoney and Pandian, 1992; Miller and Shamsie, 1996; Michalisin *et al.*, 1997; Priem and Butler, 2001). Accepting this view, we considered it more appropriate to identify the strategies pursued by the companies by identifying and analysing the resources and capabilities with which they compete in their respective markets, rather than using some of the typologies proposed in the literature. Hence the questionnaire addressed to the director general was aimed at typifying the generic strategy pursued by his organization, utilizing the definition of intangible resources proposed by Dess and Davis (1984), to which we add a last item that seeks to identify the efforts made by the company to establish and enhance its reputation. Responses to each of these questions were requested on a Likert scale of five points, on which the importance given by the company to each factor was to be rated from 1 (of no importance) to 5 (very important).

Analysis and discussion of the data

The sequence we shall follow in the analysis and discussion of the data will be that established by the hypotheses put forward. Thus, we shall first set out to identify the orientations given to the human resources practices that the companies utilize

(hypothesis 1) and to determine whether these allow us to speak of one or more model of human resources (hypothesis 2). Second, with the objective of establishing whether or not the models (hypothesis 3) and the practices of human resources management are contingent in character (hypothesis 4), we identify the strategies pursued by the companies, on the basis of the assessment they make of twenty-two strategic resources.

Human resources practices

Given the relatively large number of ítems that the questionnaire contains, and with the object of making the study of the information more manageable, our first step was to conduct a factorial analysis. The method utilized was that of principal components (rotated varimax solution); this produced fifteen new factors from the original variables. As can be appreciated from Table 1, the items on training, evaluation and career policies could each be explained by two factors (F01 and F02; V01 and V02; C01 and C02, respectively). The item designated personnel incorporation policy (comprising recruitment, selection and appointments) could be explained by three factors (R1, S01 and CT01). Lastly, the items relating to compensation could be synthesized into six factors (CP01 to CP06). In all cases, the factors presented adequate values for the analysis (eigenvalues ≤ 1). To interpret the factors, we eliminated those variables that were not clearly saturated (i.e. those with factor loading < 0.6).

Each of the factors was associated with a new variable defined by the combination of those that had met the acceptance criterion. Thus, in training policy, the first factor (F01) is formed by two variables: (1) degree of specialization vs multi-skill or diversity and (2) orientation of the training with respect to individual vs group work. This factor, therefore, determines the orientation or 'content' of the training. The second (F02) incorporates the degree of planning, the orientation towards future needs and the objective of greater productivity, thus constituting the 'context' of the training.

In career management policy, the two factors obtained (C01 and C02) clearly identified two new variables. The first of these factors (C01), which we designate 'design of careers', contains the information corresponding to all those questions referring to the existence of a formalized process of career management, and the information relating to the degree of knowledge that the employees have about their own career expectations or potential. The second (C02), 'criteria of careers', includes all those items dealing with the criteria that the company utilizes to effect movements of personnel between jobs or positions (i.e. performance, knowledge and skills).

In relation to compensation policies, we have identified six factors (CP01 to CP06). The first of these (CP01) summarizes the variables indicating the criteria used to justify differences in individual remuneration; these may be the job performance of individuals, their capabilities, capacities and skills, as well as the degree of autonomy of the functional area managers in the establishment of the remuneration. The factor CP02 indicates the importance given to the variable component of the remuneration and its dependence on the achievement of either organizational or group objectives. The factor CP03 shows the degree of acceptance and appeal accorded to the reward system by the employees and its external consistency. The factor CP04 incorporates the temporal dimension of the system of remuneration, integrating those variables relating the remuneration of the employee with the importance of achieving either short- or long-term objectives. The factor CP05 reflects the degree to which the organizational hierarchy affects the system and, lastly, the factor CP06 shows the importance of the job or position held in the determination of the salary level.

Table 1 *Factorial analysis of HR policies*

Rotated factor matrix (varimax)				
Training	*Communalities*	*Factor F01*	*Factor F02*	
FR01	0.80639	**0.89424**	0.08203	
FR02	0.78505	**0.88169**	−0.08763	
FR03	0.61228	−0.08182	**0.77819**	
FR04	0.54959	0.23251	**0.70394**	
FR05	0.43339	−0.09590	**0.65130**	
Eigenvalue		1.65666	1.53005	
Percentage variance		33.1%	30.6%	
Personnel evaluation	*Communalities*	*Factor V01*	*Factor V02*	
VAL01	0.64757	−0.25558	**0.76305**	
VAL02	0.63941	0.26767	**0.75350**	
VAL03	0.71394	**0.84404**	0.03923	
VAL04	0.68688	**0.82813**	−0.03299	
Eigenvalue		1.53556	1.15223	
Percentage variance		38.4%	28.8%	
Career management	*Communalities*	*Factor C01*	*Factor C02*	
CR01	0.71673	**0.84145**	0.09322	
CR02	0.50937	**0.70136**	0.13215	
CR03	0.81253	−0.06286	**0.89921**	
CR04	0.78828	0.16191	**0.87296**	
CR05	0.01429	−0.02162	−0.11756	
CR06	0.61153	**0.78201**	−0.00537	
Eigenvalue		2.00276	1.44699	
Percentage variance		33.4%	24.1%	
Incorporation	*Communalities*	*Factor Ct01*	*Factor S01*	*Factor R1*
CONT01	0.94699	**0.96839**	0.09578	0.00553
CONT02	0.94550	**−0.96758**	−0.09549	−0.01288
PERF01	0.93009	0.10133	**0.95612**	0.07519
PERF02	0.93071	−0.08945	**−0.95981**	−0.03837
RECL01	0.82345	0.02817	0.07219	**0.90413**
RECL02	0.82576	0.01090	−0.03321	**−0.90804**

Table 1 *(Continued)*

Eigenvalue		2.29498	1.67751	1.43002			
Percentage variance		38.2%	28.0%	23.8%			
Compensation	*Communalities*	*Factor CP01*	*Factor CP02*	*Factor CP03*	*Factor CP04*	*Factor CP05*	*Factor CP06*
CM01	0.56085	−0.03836	−0.37558	0.19521	−0.39795	0.01295	0.47082
CM02	0.67314	0.10239	**0.73011**	−0.02392	0.13698	−0.29575	−0.15097
CM03	0.43709	−0.00063	0.13870	−0.60281	−0.10619	0.09721	−0.18369
CM04	0.63305	0.24545	**0.74621**	0.14822	−0.07576	0.09084	0.00199
CM05	0.76152	0.18565	**0.83240**	0.13497	0.08578	0.06956	−0.06120
CM06	0.48460	−0.52877	−0.18213	0.03604	0.14319	0.37946	0.07770
CM07	0.62428	−0.32652	0.08283	0.36382	0.15969	−0.36260	0.47060
CM08	0.76316	**0.70991**	0.40642	−0.01400	0.26403	−0.00223	0.15523
CM09	0.65446	**0.72626**	0.19493	−0.02895	0.19072	0.22698	−0.01658
CM10	0.61904	**0.65994**	−0.02583	0.18843	0.04861	0.03644	−0.37901
CM11	0.60415	0.20834	0.18517	0.37288	−0.21183	0.51464	0.27874
CM12	0.60392	0.08878	0.11517	−0.02438	0.13965	**0.74092**	0.11709
CM13	0.48760	−0.14357	−0.30610	0.14356	−0.07389	0.57919	−0.10845
CM14	0.77957	−0.14179	−0.10509	0.04098	−0.00370	0.18398	**0.84432**
CM15	0.55708	**0.63594**	0.19965	0.18820	0.23736	−0.02840	−0.14225
CM16	0.68354	0.31158	0.03665	0.25388	**0.71619**	0.02408	−0.08451
CM17	0.80697	0.10626	0.07176	0.09039	**0.88314**	0.02372	0.04317
CM18	0.77847	0.25699	0.44303	0.56019	0.27375	0.35514	0.03566
CM19	0.69485	−0.08521	0.19697	**0.79727**	0.01693	0.10965	−0.02891
CM20	0.63812	0.31527	0.09767	**0.70444**	0.10896	0.14267	−0.02677
Eigenvalue		4.87598	2.58250	1.66112	1.49243	1.19713	1.05629
Percentage variance		24.4%	12.9%	8.3%	7.5%	6.0%	5.3%

Table 2 *Designation of the new factors for analysing HRM policies*

Factor	*Designation*
F01	Content of the training
F02	Context of the training
C01	Design of careers
C02	Criteria for career design
CP01	Remun. variable component: skills, capabilities, performance of individual
CP02	Remun. variable component: objectives of the organization or group
CP03	External consistency and internal degree of appeal of remuneration system
CP04	Temporal dimension of remuneration system
CP05	Effect of hierarchy on the remuneration system
CP06	Remun. fixed component: importance of the job/position
R1	Recruitment
S01	Selection profile
CT01	Duration of employment contracts
V01	Design of the system of evaluation
V02	Criteria for the system of evaluation

Regarding the policies of 'incorporation', we have obtained three factors with the following interpretation: factor R1 indicates a recruitment policy oriented either towards the external market or to internal resources; factor S01 indicates a selection policy oriented towards wider, more general candidate profiles or narrow, more specific profiles; and factor CT01 reflects the policy of offering employment contracts of indefinite vs limited duration.

Lastly, in relation to the processes of personnel evaluation, two factors (V01 and V02) have been identified. The first covers the items referring to the existence of a formalized evaluation system and the degree of participation of the employees in its design. The second factor refers to the utilization of the behaviour and performance of the individual as criteria of evaluation. Table 2 shows the designations given to each of the fifteen factors drawing on these interpretations of the corresponding HRM practices.

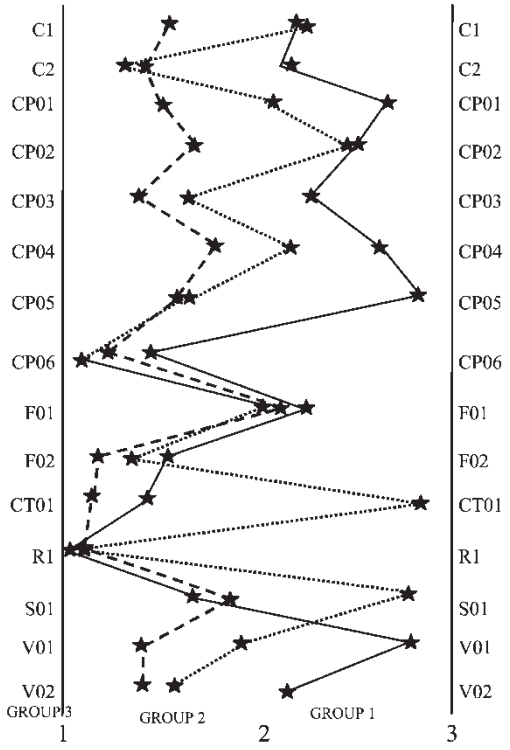
On the basis of these data, and with the object of identifying the existence of groups of companies that can be characterized as adopting similar orientations in their human resources practices, we have utilized the technique of cluster analysis. Since theoretically we did not have a prior indication of the optimum number of groups that would best explain the behaviour of the companies, we performed several different non-hierarchical cluster analyses (K-means), forcing to two, three and four groups, respectively. For each of the preceding groupings, we proceeded by successively eliminating those factors whose analysis of variance indicated that they were not significant for the grouping ($p \leq 0.05$). The result that best explained the differences was the analysis performed with three groups that included all the factors with the exception of R1. Table 3 gives the results of the analysis of variance, together with the mean value of the significant variables for each group.

Figure 1 plots the mean values of each of the factors that together make up the human resources policies practised by the three groups identified. With the object of being able to perform a more complete analysis, we have opted for including the mean values obtained for all the factors, and not solely those values that were significant for the grouping.

Cluster 1 is constituted by companies in which ten of the fifteen factors considered are placed to the right of the central axis of the graph, exceeding the value of 2.

Table 3 *Cluster analysis of human resources policies*

Variable	*Cluster MS*	*DF*	*Error MS*	*DF*	*F*	*Prob.*
C01	2.1845	2	0.392	100	5.5613	0.005
C02	4.7319	2	0.387	100	12.2053	0.000
CP01	8.0109	2	0.405	100	19.7786	0.000
CP02	4.0418	2	0.423	100	9.5452	0.000
CP03	4.3846	2	0.338	100	12.9597	0.000
CP04	2.8606	2	0.395	100	7.2344	0.001
CP05	6.7822	2	0.485	100	13.9745	0.000
CP06	1.6293	2	0.423	100	3.8452	0.025
F01	1.3676	2	0.433	100	3.1567	0.047
F02	1.7247	2	0.283	100	6.0949	0.003
CT01	25.7377	2	0.483	100	53.2109	0.000
S01	8.2983	2	0.665	100	12.4767	0.000
V01	8.4962	2	0.458	100	18.5414	0.000
V02	1.2938	2	0.261	100	4.9514	0.009
	Cluster 1 ($N = 24$) *Mean (SD)*	*Cluster 2* $N = 39$ *Mean (SD)*	*Cluster 3* $N = 40$ *Mean (SD)*			
C01	2.21	2.23	1.8			
C02	2.17	1.41	1.5			
CP01	2.71	2.08	1.67			
CP02	2.63	2.49	1.98			
CP03	2.29	1.97	1.55			
CP04	2.67	2.31	2.05			
CP05	2.79	1.97	1.90			
CP06	1.75	1.28	1.48			
F01	2.46	2.10	2.43			
F02	1.83	1.44	1.38			
CT01	1.75	2.92	1.35			
S01	1.92	2.85	2.10			
V01	2.75	2.23	1.70			
V02	2.08	1.72	1.70			



	C01	*C02*	*CP01*	*CP02*	*CP03*	*CP04*	*CP05*	*CP06*	*F01*	*F02*	*CT01*	*R1*	*S01*	*V01*	*V02*
GROUP 1	2.21	2.17	2.71	2.63	2.29	2.67	2.79	1.75	2.46	1.83	1.75	1.21	1.92	2.75	2.08
GROUP 2	2.23	1.41	2.08	2.49	1.97	2.31	1.97	1.28	2.10	1.44	2.92	1.28	2.85	2.23	1.72
GROUP 3	1.80	1.50	1.67	1.98	1.55	2.05	1.90	1.48	2.43	1.38	1.35	1.28	2.10	1.70	1.70

Captions for figure

Left-hand column		*Right-hand column*
Career design	C01	No career design
Criteria for career design	C02	Criteria for career design
Remuneration by individual performance	CP01	Remuneration not by individual performance
Remuneration for long-term objectives	CP02	Remuneration for long-term objectives
High acceptance and external consistency of remun. system	CP03	Low acceptance and external consistency
Remuneration: longer-term orientation	CP04	Remuneration: shorter-term orientation
Remuneration: influenced by hierarchy	CP05	Not influenced by hierarchy
Remuneration based on job position	CP06	Not based on job position
Training for individual, specialization	F01	Training for groups, diversity of skills
Formalized programmes for productivity improvements	F02	Non-formalized programmes
Indefinite contracts	CT01	Limited duration contracts
Internal recruitment	R1	External recruitment
Wide candidate profile	S01	Narrow candidate profile
Formalized system of appraisal	V01	Non-formalized system of appraisal
Evaluation criteria: performance and behaviour	V02	No criteria for evaluation

Figure 1 *Profile of human resources policies*

Of the other five factors, only one (R1) is placed to the far left, with a value close to 1. These companies, accounting for 23 per cent of the sample, would conform to a particular model of human resources management (M1). This model would be characterized by the lack of a career management system in the company, by

a compensation system in which the level of performance of the individual employee is not taken in consideration, which would be congruent with the absence of a formalized system of personnel evaluation. The system of compensation is not determined by hierarchy and is not well accepted by the employees. The particular personnel policy that presents the clearest definition is training, which is oriented to equipping employees with a diversity of skills and to securing short-term productivity improvements. From this description of its characteristics, this model could be described as being of 'weak definition' in terms of HRM practices.

Cluster 2 comprises companies in which the factors are distributed almost equally on one or other side of the central value of the scale (eight exceed the value 2 and seven are below it). This is the case of approximately 30 per cent of the sample, which are considered to conform to a second model of HRM (M2). The companies grouped within this cluster may not have a formalized career structure design but do have available the criteria needed to take decisions in this area. The remuneration system enjoys a moderate degree of acceptance and is moderately influenced by hierarchy, being more strongly based on the definition of the job position and attributing little importance to the performance of the individual or to the achievement of longer-term objectives. The training policy, although not clearly defined as regards its orientation, does pursue short-term productivity improvements. The system of recruitment is centred on existing resources in the internal market, and selects persons according to a narrow, specialized profile; contracts offered are of limited duration. Criteria have been developed to apply in the system of personnel evaluation. This set of features would allow us to classify this model as being 'formalized but with a narrow and traditional orientation'.

Cluster 3 gives us the third differentiated HRM model identified (M3) and is formed by companies accounting for 39 per cent of the sample. In this case, the majority of the factors (twelve of the fifteen) that describe the human resources policies are placed with values of around 1, i.e. on the left-hand side of the graph. This group of companies is found to have a clear orientation and definition in their human resources policies, incorporating a wider variety of options. This is a model of human resources management that we could qualify as 'clearly defined and open'. The system of career management is clearly specified and the training policy is planned and aimed at enhancing efficiency. The remuneration system has a more organic character (in the term used by Balkin and Gomez-Mejía, 1987, 1990), with importance being attributed to the variable part. The evaluation of personnel is based as much on performance as on behaviour or attitude, and employment contracts tend to be of indefinite duration. Recruitment draws mainly on the organization's internal market. Table 4 presents a summary of the principal characteristics of each of the three models identified.

The analysis of the data also reveals that there are four factors in which the positions of the companies are very similar. These four comprise: remuneration based on the job position (CP06); training oriented towards diversity of skills (F01); training oriented towards securing productivity improvement (F02); and reliance on the internal job market in the recruitment process (R1).

Bearing in mind that the second main objective of our study is to identify the possible relationship between the three models of human resources and the strategic orientations of the companies, the second part of the empirical research is centred on the strategy options demonstrated by the companies and their possible correlation with the models identified.

Table 4 *Principal characteristics of the HRM system*

HR policies	*Group 1*	*Group 2*	*Group 3*
Careers	Policy not designed	Policy not designed	Policy designed. Criteria: individual performance, capabilities and skills
Remuneration	Not well defined. Based on job position. Low level of acceptance and appeal	Based on job position. Importance given to fixed part. Low level of acceptance and appeal	Based on job position. Importance given to variable component, based on skills and performance of the individual. High level of acceptance and appeal
Training	Policy not designed	Policy not designed. Orientation: *ad hoc*	Policy designed. Orientation: multi-skills and group working
Incorporation	Internal market recruitment. Contracts: indefinite duration Candidate profile: not defined	Internal market recruitment. Contracts: limited duration. Profile: specific	Internal market recruitment. Contracts: indefinite duration. Profile: wide and specific
Evaluation	Policy not designed	Policy not designed	Policy designed. Criteria: behaviour and performance of the individual

Strategic orientation of companies based on their strategic resources

Based on the Likert-scale ratings given by respondents to the twenty-two factors involved in their company's competitive advantages, the companies have been grouped by means of cluster analysis (K-means). Since we did not have an *a priori* theoretical indication of the optimum number of groups that would best explain the choices of strategy by the companies, we utilized various non-hierarchical analyses, for each of the groupings successively eliminating those factors whose analysis of variance indicated that they were not significant for the grouping ($p \leq 0.05$). The solution that best explained these difference was that obtained for $n = 3$ groups, comprising seventeen, fifty-nine and thirty-five companies, respectively, using fifteen of the original twenty-two factors. Table 5 presents the analyses of variance, together with the descriptive analysis of the twenty-two variables in each group.

Figure 2 presents the profile of the clusters obtained with the values for each of the factors that were shown to be relevant for the formation of the groups.

The analysis of the values obtained in the factors of competitive advantage, as rated by the companies in cluster 1, indicates that rigorous efforts both to establish procedures for product quality control ($V5 = 2.65$; $SD = 0.61$) and to market higher-priced products are important and a key aim for the competitive advantage for the firm ($V20 = 2.65$; $SD = 0.61$). The improvement of existing products ($V15 = 2.47$; $SD = 0.72$) and the capacity to manufacture specialized products (i.e. niche marketing) ($V18 = 2.35$; $SD = 0.79$) are also valued as important aspects of competitive advantage. If we add to these characteristics identified the finding that this group of companies is the group that attaches least value to the reduction of costs ($V4 = 2.29$; $SD = 0.77$) and does

Table 5 *Cluster analysis of competitive strategy*

Variable	*Cluster MS*	*DF*	*Error MS*	*DF*	*F*	*Prob.*
V2	3.0621	2	0.341	108	8.9702	0.000
V4	2.6892	2	0.163	108	16.4568	0.000
V5	0.4790	2	148	108	3.2300	0.043
V7	3.0392	2	0.437	108	6.9408	0.001
V8	4.8395	2	0.311	108	15.5471	0.000
V9	14.2094	2	0.443	108	32.0221	0.000
V11	2.5451	2	0.315	108	8.0611	0.001
V14	3.5818	2	0.411	108	8.7118	0.000
V15	1.3685	2	0.199	108	6.8751	0.002
V16	20.4293	2	0.295	108	69.1299	0.000
V17	17.4419	2	0.357	108	48.8094	0.000
V18	2.8412	2	0.495	108	5.7290	0.004
V19	6.0112	2	0.577	108	10.4083	0.000
V20	23.6424	2	0.374	108	63.2169	0.000
V21	22.6906	2	0.299	108	75.8824	0.000

	Cluster 1 ($N = 17$) *Mean (SD)*	*Cluster 2* ($N = 59$) *Mean (SD)*	*Cluster 3* ($N = 35$) *Mean (SD)*
V2	2.12 (0.86)	2.80 (0.48)	2.69 (0.58)
V4	2.29 (0.77)	2.92 (0.28)	2.89 (0.32)
V5	2.65 (0.61)	2.90 (0.36)	2.91 (0.28)
V7	2.18 (0.88)	2.66 (0.58)	2.20 (0.68)
V8	2.18 (0.88)	2.92 (0.28)	2.43 (0.70)
V9	1.29 (0.47)	2.69 (0.62)	2.06 (0.80)
V11	2.29 (0.77)	2.88 (0.42)	2.60 (0.65)
V14	2.00 (0.87)	2.73 (0.52)	2.49 (0.70)
V15	2.47 (0.72)	2.92 (0.28)	2.74 (0.51)
V16	1.41 (0.62)	2.85 (0.36)	1.77 (0.73)
V17	1.81 (0.39)	2.41 (0.62)	1.34 (0.64)
V18	2.35 (0.79)	2.78 (0.49)	2.31 (0.93)
V19	1.76 (0.97)	2.14 (0.75)	1.40 (0.65)

Table 5 *(Continued)*

V20	2.65 (0.61)	2.31 (0.77)	1.00 (0.00)
V21	1.12 (0.33)	2.54 (0.60)	1.34 (0.54)

Notes
V1 = Quality of the product
V2 = Development of new products
V3 = Productivity of the business
V4 = Continuous effort to reduce costs
V5 = Rigorous effort in establishing procedures for product quality control
V6 = Price
V7 = Wide range of products
V8 = Effort to establish a strong brand identity
V9 = Influence over distribution channels
V10 = Great efforts to improve raw material supplies
V11 = Innovation in the process of fabrication
V12 = Broad capacities for customer service
V13 = Specific initiatives for building a skilled and experienced human team
V14 = Maintenance of low inventory levels
V15 = Improvement of existing products
V16 = Innovation in marketing techniques and methods
V17 = Promotion and publicity expenditure above sector average
V18 = Capacity for fabrication of specialized products
V19 = Specialization in geographic segments
V20 = Products in higher price segments of market
V21 = Efforts towards improving the quality of the publicity
V22 = Efforts towards enhancing company reputation

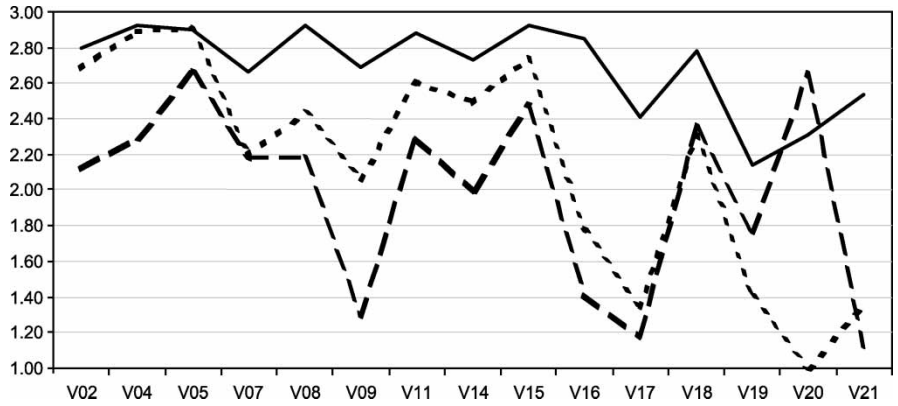


Figure 2 *Strategy profiles of the companies in the sample*

not show special concern for the development of new products (V2 = 2.12; SD = 0.86), the strategy adopted could be classified as 'seeking competitive differentiation, by means of products oriented to the higher-price segments of the market'.

Cluster 2 includes fifty-nine companies (53.15 per cent of the sample) that are notable for attaching more importance to all the factors of competitive advantage, with the exception of price. These are companies that innovate in processes (V11 = 2.88; SD = 0.42) and products (V2 = 2.80; SD = 0.48), are oriented towards diversification (V7 = 2.66; SD = 0.58), that put considerable effort into publicity (V21 = 2.54; SD = 0.60) and the promotion (V17 = 2.41; SD = 0.62) of their products and the consolidation of their brands (V8 = 2.92; SD = 0.28). All these features lead us to classify the strategy orientation of this group as 'market-oriented innovators'.

Lastly, the companies found in cluster 3 are characterized by seeking the continuous improvement of their products (V5 = 2.91; SD = 0.28), by pursuing greater efficiency, since these are the companies that attach more importance to repeated efforts towards cost reduction (V4 = 2.89; SD = 0.32). Hence the strategy classification assigned to this third group is 'orientation towards efficiency and product improvement'.

On the basis of this analysis, we define a new variable designated 'competitive strategy of the company', with three numerical values (1–3) corresponding to each of the preceding strategic profiles. Similarly we define the new variable 'system of human resources management', also with three numerical values (1–3) corresponding to each of the HRM models previously identified. In order to test the correlation between the strategy and the HRM model, we conduct an analysis of variance, the results of which are given in Table 6.

For a deeper investigation into the relationship between the strategy and the five main human resources policies surveyed, we undertake partial analyses considering the combined effect of the factors defining each of these policies on the competitive strategy (Table 7), together with the individual analysis of each factor separately (Table 8).

The relationship revealed between the competitive strategy and the particular HRM policies, and with the model of HRM, does not confirm the behaviour described in much of the literature that we have cited in the theoretical part of this paper. In effect, as can be deduced from the results obtained in the analysis of variance, the connection between the human resources policies and the competitive strategy has no contingent relationship for any of the five policies defined, whether they are considered independently or jointly.

Table 6 *ANOVA of strategy – system of HRM*

Human resources management policies	*Sum of squares*	*DF*	*Mean squares*	*F*	*Sign. of F*
Main effects	0.744	2	0.372	0.638	0.531
HRMP	0.744	2	0.372	0.638	0.531
Explained	0.744	2	0.372	0.368	0.531
Residual	49.619	85	0.584		
Total	50.364	87	0.579		

Table 7 *ANOVA of strategy – HRM policies*

Policy		*Sum of squares*	*DF*	*Mean squares*	*F*	*Sign. of F*
Careers	Main effects	3.658	4	0.915	2.260	0.068
	C01	2.389	2	1.199	2.963	0.056
	C02	1.504	2	0.752	1.858	0.161
	Explained	5.323	8	0.665	1.645	0.122
	Residual	39.649	98	0.405		
	Total	44.972	106	0.424		
Compensation	Main effects	4.273	12	0.356	0.826	0.624
	CP01	0.765	2	0.383	0.88	0.415
	CP02	0.242	2	0.121	0.821	0.756
	CP03	1.768	2	0.884	2.050	0.135
	CP04	0.150	2	0.075	0.174	0.840
	CP05	0.288	2	0.144	0.333	0.717
	CP06	0.507	2	0.254	0.588	0.558
	Explained	4.273	12	0.356	0.826	0.624
	Residual	37.081	86	0.431		
	Total	41.354	98	0.422		
Training	Main effects	2.335	4	0.584	1.356	0.255
	F01	1.799	2	0.899	2.090	0.129
	F02	0.352	2	0.176	0.409	0.665
	Explained	2.335	4	0.584	1.356	0.255
	Residual	41.743	97	0.430		
	Total	44.078	101	0.436		
Incorporation	Main effects	1.822	6	0.304	0.663	0.679
	CT01	0.870	2	0.435	0.950	0.390
	R1	0.647	2	0.323	0.706	0.496
	S01	0.510	2	0.255	0.557	0.575
	Explained	1.822	6	0.304	0.663	0.679
	Residual	45.785	100	0.458		
	Total	46.607	106	0.449		
Evaluation	Main effects	1.628	4	0.407	0.925	0.453
	V01	1.348	2	0.674	1.531	0.221
	V02	0.290	2	0.145	0.329	0.720
	Explained	4.040	8	0.505	1.147	0.339
	Residual	43.590	99	0.440		
	Total	47.630	107	0.445		

Table 8 *ANOVA (one way) of strategy – factors*

Factor	*DF*	*Sum of squares*	*Mean squares*	*F ratio*	*F prob.*
C01	2	2.6343	1.3172	3.3233	**0.039**
C02	2	0.6268	0.3134	0.7283	0.485
CP01	2	2.7993	1.3996	2.5716	0.081
CP02	2	1.8958	0.9479	1.7700	0.175
CP03	2	2.2614	1.1307	3.0168	0.053
CP04	2	0.5965	0.2983	0.7077	0.495
CP05	2	2.0542	1.0271	1.5590	0.215
CP06	2	0.1016	0.0508	0.1101	0.895
F01	2	0.5617	0.2809	0.6006	0.550
FO2	2	1.5258	0.7629	2.3781	0.097
CT01	2	3.6905	1.8453	1.8975	0.155
R1	2	0.1529	0.0765	0.1658	0.847
S01	2	0.3324	0.1662	0.2041	0.815
V01	2	1.7076	0.8538	1.4349	0.242
V02	2	1.5537	0.7769	2.9715	0.055

This could lead one to think that it may be other factors that determine the options in the management of resources.

To complete this study, it is also interesting to analyse the tendency in respect of the orientation of the management of human resources of the companies of the sample, according to the strategy followed. As can be observed in the table of contingency (Table 9), the relatively few companies that follow a strategy of differentiation (n = 11) are those that proportionately most utilize model 2. The key features to emphasize in this model for strategy development are: selection based on profiles of high specialization; the use of evaluation criteria centred on the behaviour and performance of the employee; and the clear preference for contracts of limited duration. The largest group of the sample (n = 48) is of companies that follow a strategy of innovation; this group is divided mainly between HRM models 2 and 3, although somewhat more companies (n = 20) opt for the model that represents the most clearly defined system of human resources management. On the other hand, those that define their strategy as oriented towards greater efficiency present a preferential tendency to use HRM model 2 (n = 12), and can thus be considered companies with less well-defined systems of human resources management, although significant proportions also use model 3 (n = 10).

Table 9 *Distribution of the HRM groups according to company strategy: number and (percentage) of companies that follow the strategy*

	Human resources management (groups)			
Competitive strategy	*Group 1*	*Group 2*	*Group 3*	*Total*
Differentiation in products oriented to high price segments	3 (27%)	6 (55%)	2 (18%)	11 (100%)
Innovation	10 (19%)	18 (39%)	20 (42%)	48 (100%)
Efficiency and improvement of products	8 (17%)	12 (40%)	10 (33%)	30 (100%)

Conclusions

The analysis of the data presents us with some interesting conclusions on the behaviour of Spanish industrial companies.

An initial noteworthy aspect of our analysis is the identification of fifteen factors that describe the human resources practices employed by the companies of the sample. Thus, training policy can be explained as a function of its content and orientation (context). The two dimensions that define the career policies are those of the design and the criteria under which employee movements are decided. The recruitment sources used (external vs internal), the scope of the candidate profiles and the temporal dimension of the contract characterize the policies of incorporation. Lastly, the compensation system is defined by six dimensions referring to the relative weight given to the variable and fixed components of remuneration, the degree of external and internal consistency and the effect of hierarchy on the retribution.

These results may contribute to facilitating future comparisons of research studies carried out in other contexts, by giving some homogeneity to the dimensions that define the processes of human resources management.

Second, we have identified three models of differentiated management. A first model (model 1) is not very well defined in the dimensions of career planning, training, evaluation and remuneration that characterize the system of human resources management. From their lack of planning, and the application of *ad hoc* human resources policies, the concept of human resources in these companies could be regarded as a reactive activity, based on the minimization of cost and conflict, and managed as a function of changing fashions. The second model (model 2) shows more planning in respect of training and remuneration policies. And, lastly, at the opposite extreme, a third model (model 3) is characterized by high degrees of planning, definition and internal coherence in all the dimensions of the human resources management system.

With reference to the strategies pursued by these companies, we have obtained three large clusters. The first of these groups together the companies characterized by product differentiation and orientation towards higher-price market segments. A second cluster brings together those companies in which innovation constitutes the axis around which their competitive advantage revolves; and, third, a cluster encompasses the companies that focus on improving their efficiency and productivity.

Another finding that deserves to be emphasized is that, although the three models present differentiating features, there are some dimensions in human resources management practices that are identical in each model. In this context, we are referring to the importance of the job position in respect of the remuneration, training aimed at improving productivity and the use of the internal rather than the external job market.

On the basis of these results obtained from our analysis, our conclusions can be summarized as follows:

1. In the three models identified, certain HRM policies exist that are common to all the companies. Orientation towards resorting to the internal rather than the external employment market and a compensation policy centred on the job position are universal practices in the context analysed. This partially confirms our first hypothesis.

   In future investigations it will be necessary to explore in greater depth the reasons underlying the orientation given to these policies. A preliminary reflection points to factors of business culture and the industrial context (industrial sector, job market characteristic, etc.) in which the companies operate as possible reasons. Among reasons that are cultural in character, we could point to the cultural resistance

to geographic mobility, within the country and internationally, the strong preference for employment stability, and the existence of a business culture that historically has reinforced internal promotion. Moreover, the role played by the trades unions in the Spanish industrial sector in defence of stability of employment could be another reason explaining the universal character of these policies.

2. Differentiated systems of human resources management are found in the sample analysed; in other words, differences are presented in the degree of internal coherence of the HRM policies. Whereas model 3 presents a high degree of such coherence, in model 1 the opposite is found, a low degree of affinity between policies. Therefore the testing of our second hypothesis also gives a positive result.
3. None of the three models of human resources management is clearly aligned with the strategies of the companies. The strategies identified explain neither the model nor the practices of human resources management, and hence the HRM policies are clearly not contingent. Therefore our third and fourth hypotheses must remain rejected.

In spite of the preceding comments, it may be conjectured from the distribution of the groups of human resources according to strategy that certain tendencies are observed that could 'signal' a future type of behaviour by the company. It would also seem logical to postulate that there may be other variables that explain or determine the choice of HRM models by companies, such as the demographics of the management team, the productive and technological systems employed and the role played by trades unions in the company, among others; this leaves open possible lines of future research.

Acknowledgements

The order of authorship given is alphabetical. We should like to acknowledge support from Grant PB98-0328 from the Ministerio de Educación y Cultura and Grant SEJ-739 from Consejería de Educación y Ciencia de la Junta de Andalucía (Spain).

Notes

1 Miles and Snow (1978) distinguish between defensive, prospective and analyser strategies; Schuler and Jackson (1987) between strategies of innovation, quality and costs.

References

Alexander, D.L. and Zhoy, H. (1995) 'Product-Market Competition and Executive Compensation', *Journal of Economics and Business*, 47(5): 441–56.

Arthur, J.B. (1992) 'The Link between Business Strategy and Industrial Relations Systems in the American Steel Mini Mills', *Industrial and Labor Relations Review*, 45: 488–506.

Balkin, D. and Gomez-Mejía, L. (1987a) 'The Strategic Use of Short-term and Long-term Incentives in the High Technology Industries'. In Balkin, D. and Gomez-Mejía, L. (eds) *New Perspectives on Compensation*. Englewood Cliffs, NJ: Prentice Hall.

Balkin, D. and Gomez-Mejía, L. (1987b) 'Toward a Contingency Theory of Compensation Strategy', *Strategic Management Journal*, 8: 169–82.

Balkin, D. and Gomez-Mejía, L. (1990) 'Matching Compensation and Organizational Strategies', *Strategic Management Journal*, 11: 153–69.

Barney, J. (1991) 'Firm Resources and Sustained Competitive Advantage', *Journal of Management*, 17: 99–120.

Barney, J.B. (1992) 'Integrating Organizational Behavior and Strategy Formulation Research: A Resource Based Analysis'. In Shrivastava, P., Huff, A. and Dutton, J. (eds) *Advances in Strategic Management*, Vol. 8. Greeenwich, CT: JAI Press, pp. 131–48.

Barney, J. and Wright, P. (1998) 'On Becoming a Strategic Partner: The Role of Human Resources in Gaining Competitive Advantage', *Human Resource Management*, 37(1): 31–46.

Bayo Moriones, A. and Merino Diaz de Cerio, J. (2002) 'Las Prácticas de Recursos Humanos de Alto Compromiso: Un Estudio de los Factores que Influyen sobre su Adopción en la Industria Española', *Cuadernos de Economía y Dirección de la Empresa*, 12: 227–46.

Becker, B. and Gerhart, B. (1996) 'The Impact of Human Resource Management on Organizational Performance: Progress and Prospects', *Academy of Management Journal*, 39: 779–810.

Besseyre des Horts, C.H. (1987) 'Typologies des pratiques de gestion des ressources humaines', *Revue Française de Gestion*, 65–6: 149–65.

Boxall, P. (1996) 'The Strategic Human Resource Debate and the Resource-Based View of the Firm', *Human Resource Management Journal*, 6(3): 59–75.

Boxall, P. and Steeneveld, M. (1999) 'Human Resource Strategy and Competitive Advantage: A Longitudinal Study of Engineering Consultancies', *Journal of Management Studies*, 36(4): 443–63.

Brewster, C. (1999) 'Different Paradigms in Strategic HRM: Questions Raised by Comparative Research'. *Research in Personnel and Human Resources Management*, Supplement 4. Greenwich, CT: JAI Press, pp. 213–38.

Brousseau, K., Driver, M., Eneroth, K. and Larsson, R. (1996) 'Career Pandemonium: Realigning Organizations and Individuals', *Academy of Management Executive*, 10(4): 52–66.

Carrol, S. (1987) 'Business Strategies and Compensations Systems'. In Balkin, D. and Gomez-Mejía, L. (eds) *New Perspectives on Compensation*. Englewood Cliffs, NJ: Prentice Hall, pp. 343–55.

Collis, D.J. and Montgomery, C.A. (1995) 'Competing on Resources: Strategic in the 1990's', *Harvard Business Review*, July–August: 118–28.

Delaney, J. and Huselid, M. (1996) 'The Impact of Human Resource Practices on Perceptions of Organizational Performance', *Academy of Management Journal*, 39: 949–69.

Delaney, J.T., Lewin, D. and Ichinowski, C. (1989) *Human Resource Policies and Practices in American Firms*. Washington, DC: Government Printing Office.

Delery, J.E. (1998) 'Issues of Fit in Strategic Human Resource Management: Implications for Research', *Human Resource Management Review*, 8(3): 289–97.

Delery, J.E. and Doty, D.H. (1996) 'Modes of Theorizing in Strategic Human Resources Management: Test of Universalistic, Contingency and Configurational Performance Predictions', *Academy of Management Journal*, 39(4): 802–35.

Dess, G. and Davis, P. (1984) 'Porter's Generic Strategies as Determinants of Strategic Group Membership and Organizational Performance', *Academy of Management Journal*, 27(2): 467–88.

Doty, D.H. and Glick, W.H. (1994) 'Typologies as a Unique Form of Theory Building: Toward Improved Understanding and Modeling', *Academy of Management Review*, 19: 230–51.

Doty, D.H., Glick, W.H. and Hubber, G.P. (1993) 'Fit, Equifinality, and Organizational Effectiveness: A Test of Two Configurational Theories', *Academy of Management Journal*, 36: 1196–250.

Ferris, G., Arthur, M., Berkson, H., Kaplan, D., Harrel, G. and Frink, D. (1998) 'Toward a Social Context Theory of the Human Resource Management Organization Effectiveness Relationship', *Human Resource Management Review*, 8(3): 235–64.

Finkelstein, S. and Boyd, B.K. (1998) 'How Much Does the CEO Matter? The Role of Managerial Discretion in the Setting of CEO Compensation', *Academy of Management Journal*, 41(2): 179–99.

Freund, W. and Epstein, E. (1984) *People and Productivity*. NewYork: Dow Jones Irwin.

Gerstein, M. and Reisman, H. (1983) 'Strategic Selection: Matching Executives to Business Conditions', *Sloan Management Review Association,* Winter: 33–49.

Gomez-Mejía, L. (1992) 'Structure and Process of Diversification, Compensation Strategy and Firm Performance', *Strategic Management Journal*, 13: 381–97.

Gomez-Mejía, L. and Welbourne, T.M. (1988) 'Compensation Strategy: An Overview and Future Steps', *Human Resources Planning*, 11: 173–89.

Gomez-Mejía, L. and Welbourne, T.M. (1989) 'Strategic Design of Executive Compensation Programs'. In Gomez-Mejía, L., Milkovich, G.T. and Olsen, R. (eds) *Compensation and Benefits*. Washington, DC: BNA Books, pp. 216–69.

Guest, D. (1997) 'Human Resource Management and Performance: A Review and Research Agenda', *International Journal of Human Resource Management*, 8(3): 263–76.

Huselid, M. (1995) 'The Impact of Human Resource Management Practices on Turnover, Productivity and Corporate Financial Performance', *Academy of Management Journal*, 38: 365–72.

Jackson, S. and Schuler, R. (1995) 'Understanding Human Resource Management in the Context of Organizations and their Environment', *Annual Review of Psychology*, 46: 237–64.

Jackson, S., Schuler, R. and Rivero, J. (1989) 'Organizational Characteristic as Predictors of Personnel Practices', *Personnel Psychology*, 42: 727–86.

Jones, G. and Wright, P. (1992) 'An Economic Approach to Conceptualizing the Utility of Human Resource Management Practices', *Research in Personnel and Human Resource Management*, 10: 271–99.

Lasierra Esteban, J.M. (2001) 'Mercado de Trabajo y Estrategias Competitivas', ed. CES. Spain.

McDuffie, J. (1995) 'Human Resources Bundles and Manufacturing Performance: Organizational Logic and Flexible Production Systems in the World Auto Industry', *Industrial and Labor Relations Review*, 49: 197–221.

McDuffie, J. and Kochan, T. (1995) 'Do, US Firms Invest Less in Human Resources? Training in the World Auto Industry', *Industrial Relations*, 34(2): 147–68.

McWilliams, A., Van Fleet, D. and Wright, P. (2001) 'Strategic Management of Human Resources for Global Competitive Advantage', *Journal of Business Strategies*, 18(1): 1–24.

Mahoney, J. and Pandian, J. (1992) 'The Resource-Based View within the Conversation of Strategic Management', *Strategic Management Journal*, 13: 363–80.

Martín, F., Romero, P. and Valle, R. (1999) 'La Estrategía Empresarial y la Gestión de Carreras: Un Análisis de las Empresas Españolas', paper given at the First IberoAmerican Congress, Academy of Management, Madrid

Martín, F., Romero, P. and Valle, R. (2001) 'Corporate Business Strategy, Career Management and Recruitment: Do Spanish Firms Adhere to a Contingency Model?', *Career Development International*, 6(3): 149–55.

Miles, R. and Snow, C.H. (1978) *Organizational Strategy, Structure and Processes*. New York: McGraw-Hill.

Miles, R. and Snow, C.H. (1984) 'Designing Strategic Human Resources Systems', *Organizational Dynamics,* Summer, 36–52.

Michalisin, M.D., Smith, R.D. and Kline, D.M. (1997) 'In Search of Strategic Assets', *International Journal of Organizational Analysis*, 5: 360–87.

Milkovich, G. (1988) 'A Strategic Perspective on Compensation Management', *Research in Personnel and Human Resources Management*, 6: 263–88.

Miller, D. and Shamsie, J. (1996) 'The Resource-Based View of the Firm in Two Environments: The Hollywood Film Studios from 1936 to 1965', *Academy of Management Journal*, 39: 519–43.

Ordiz Fuertes, M. (2002) 'Practicas de Alto Rendimiento en Recursos Humanos: Concepto y Factores que Motivan su Adopción', *Cuadernos de Economía y Dirección de la Empresa*, 12: 247–65.

Osterman, P. (1994) 'How Common Is Workplace Transformation and Who Adopts It?', *Industrial and Labor Relations Review*, 47: 173–88.

Peck, S. (1994) 'Exploring the Link between Organizational Strategy and the Employment Relationship: The Role of Human Resources Policies', *Journal of Management Studies*, 31(5): 715–36.

Pfeffer, J. (1994) *Competitive Advantage through People: Unleashing The Power of the Work Force*. Cambridge, MA: Harvard Business School Press.

Pfeffer, J. (1998) 'Seven Practices of Successful Organizations', *Californian Management Review*, 20(2): 96–124.

Porter, M. (1980) *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: The Free Press.

Priem, R.L. and Butler, J.E. (2001) 'Is the Resource-Based View a Useful Perspective for Strategic Management Research?', *The Academy of Management Review*, 26(1): 22–40.

Raghuram, S. and Arvey, R. (1994) 'Business Strategy Links with Staffing and Training Practices', *Human Resources Planning*, 17(3): 55–73.

Rajagopalan, N. (1997) 'Strategic Orientations, Incentive Plan Adoptions, and Firm Performance: Evidence from Electric Utility Firms', *Strategic Management Journal*, 18: 761–85.

Rajagopalan, N. and Finkelstein, S. (1992) 'Effects of Strategic Orientation on Environmental Change of Senior Management Reward Systems', *Strategic Management Journal*, 13: 127–42.

Roca Puig, V., Escrig Tena, A. and Bou Llusar, J.C. (2002) 'Compromisos con los Empleados y Estrategia Competitive: Un Análisis Intersectorial de su Repercusión en los Resultados', *Cuadernos de Economía y Dirección de Empresa*, 12: 267–89.

Romero, G. and Valle, R. (2001) 'Strategy and Managers Compensation: The Spanish Case', *International Journal of Human Resource Management*, 12(2): 218–42.

Rumelt, R. (1974) *Strategy, Structure and Economic Performance*. Cambridge, MA: Harvard Business School Press.

Sanchez Marín, G. and Aragón Sanchez, A. (2002) 'Retribución del Directivo, Factores Contextuales y Resultados de la Empresa: Evidencia Empírica en del Sector Quimico-Farmaceutico', *Cuadernos de Economía y Dirección de la Empresa*, 12: 315–36.

Sanchez Marín, G. and Aragón Sanchez, A. (2002–3) 'Top Managers' Compensation, Strategic Orientations, and Firm Performance: Empirical Evidence from Spanish Firms', *Management Research*, 1(1): 27–44.

Sanz, R., Sabater, R. and Aragón, A. (1997) 'Integración de la Estrategía Empresarial y de la Dirección de Recursos Humanos; Una Aplicación Empírica', I Workshop on Human Resource Management, University of Cádiz.

Schuler, R. (1992) 'Strategic Human Resources Management: Linking the People with the Strategic Needs of the Business', *Organizational Dynamics*, 6(4): 18–31.

Schuler, R. and Jackson, S. (1987) 'Linking Competitive Strategy with Human Resource Management Practices', *Academy of Management Executive*, 1(3): 207–19.

Snell, S. and Dean, J. (1995) 'Integrated Manufacturing and Tyson, S. (1995)' *Human Resource Strategy: Towards a General Theory of Human Resource Management*. London: Pitman.

Sonnenfeld, J. and Peiperl, M. (1988) 'Staffing Policy as a Strategic Response: A Typology of Career Systems', *Academy of Management Review*, 13: 588–600.

Stumpf, S. (1988) 'Choosing Career Management Practices to Support your Business Strategy', *Human Resource Planning*, 11(1): 33–47.

Tyson, S. (1995) *Human Resource Strategy: Towards a General Theory of Human Resource Management*. London: Pitman.

Valle, R., Martín, F., Romero, P. and Dolan, S. (2000) 'Business Strategy, Work Processes and Human Resource Training: Are They Congruent?', *Journal of Organizational Behavior*, 21: 283–97.

Wernerfelt, B. (1984) 'A Resource-Based View of the Firm', *Strategic Management Journal*, 5: 171–80.

Wernerfelt, B. (1989) 'From Critical Resources to Corporate Strategy', *Journal of General Management*, 14(3): 4–12.

Wils, T., Guerin, G. and Bernard, R. (1993) 'Career Systems: A Configuration of Career Management Activities', *The International Journal of Career Management*, 5(4): 11–15.

Wright, P. and McMahan, G. (1992) 'Theoretical Perspectives for Strategic Human Resource Management', *Journal of Management*, 18: 295–320.

Wright, P., McMahan, G. and McWilliams, A. (1994) 'Human Resources and Sustained Competitive Advantage: A Resource-Based Perspective', *International Journal of Human Resource Management*, 5(2): 301–26.

Wright, P.M., McMahan, G.C., Snell, S.A. and Gerhart, B. (2001) 'Comparing Line and HR Executives' Perceptions of HR Effectiveness: Services, Roles, and Contributions', *Human Resource Management*, 40(2): 111–23.

Youndt, M.A., Snell, S.A., Dean, J.W., Jr and Lepak, D.P. (1996) 'Human Resource Management, Manufacturing Strategy and Firm Performance', *The Academy of Management Journal*, 39(4): 836–66.