A CASE STUDY APPROACH TO EXPLORING THE RELATIONSHIP BETWEEN
HUMAN RESOURCES MANAGEMENT AND FIRM PERFORMANCE

Cristina Simón

IE Business School
Maria de Molina 12, 4º
28006 Madrid, Spain
T: +34 91 568 9600
cristina.simon@ie.edu

Abstract
Research in the field of Strategic Human Resource Management (SRHM) has been especially wide and fruitful for the last two dec ades. Most of the work, however, has long been relied on cross-sectional studies and sing le respondent survey (SRSM) techniques. Models produced so far hence do not discuss the impact of people management practices over individuals and the relations among employee's outcomes and business unit or corporate results. The present paper presents a quantitative case study of a large financial services organization and explores the possible links among HR and individual and b usiness unit levels of pe rformance. Though being highly exploratory, the study raises a set of i ssues that might challenge some of the SHRM well-established statements such as the assumption of a direct, linear relationship between HR practices and business results, or the use of financial ratios as suita ble indicators of the efficiency of people management practices.

Keywords
Strategic HRM, firm performance, case study.

Introduction

The strategic human resources (SHR) discipline has its origins in the study of the relationship between HR and performance. SHR is defined as 'the pattern of planned human resource deployments and activities intended to enable an organization to achieve its goals' (Wright and Maclahan, 1992). Following Delery and Shaw (2001), the strategic component in HR is determined both by (i) the relationship among HR practices and business strategy, and (ii) the impact of such practices on firm performance. For the last two decades, a vast amount of research has been devoted to these two issues, and this paper intends to shed some light over the latter, that is, the relationship between HR policies and the performance of the firm (for a review see Boselie et al., 2005).

Empirical work has provided ample evidence of the existence of either individual practices (Huselid, 1995; Becker and Huselid, 1998) or 'bundles' of practices (MacDuffie, 1995; Guest, 2004; Ichniowski, 1997) that increase performance in a wide range of business sectors and under varying organizational conditions (Wright and Boswell, 2002). Those findings have proven very valuable in helping the HR discipline gain salience in the business context, and have stimulated theoretical advances in the field. However, some commentators have been critical to the methods used as being biased and therefore limiting the scope of generalization of findings (Guest, 2001; Wright et al., 2001; Wright and Boswell, 2002). Reviews of progress in the field by Delery and Shaw (2001) and more recently by Boselie et al. (2005) highlight some of the limitations of these findings:

- Analyses have long relied on unidimensional measures of performance, usually financial indicators on a corporate level, over cross-sectional company samples (Boselie et al., 2005). This may affect the homogeneity of the dependent variable, since the same financial indicators on a corporate level can be calculated differently across sectors or types of business. Some papers specifically cope with these problems using uniform measures of productivity, mainly in the industrial sector (Ichinowski et al, 1997) or running cross-company analysis within the same sector (MacDuffie, 1995).

- Other critics question the reliability of the use of single-respondent organizational surveys (SROS) (Gerhart et al., 2000). SROS are widely used, mainly because of the unavailability of more objective measures, but add to the reliability issue the serious risk of modelling the HR system in 'desired' terms rather than in 'realized' ones (Gratton et al., 1999).

Due to these limitations, several authors call for the use of alternative methodologies, such as case studies, to test for generalizability of SROS-based findings (Boselie et al, 2005; Guest, 2001).

Another matter of discussion is the level of analysis involved in the studies. Most work has been developed using corporate aggregates of HR and performance variables, in what Wright and Boselie (2002) consider a 'segregation' of the strategic and functional sides. Along this line, there is some evidence that when micro and macro levels are integrated, the assumed

impact of HR policies over firm performance gets blurred, and the final effe ct is better explained through their impact on different aspe cts of the indi vidual, such as com mitment, motivation or sati sfaction (Paul and Ananthara man, 2003; Wright et al., 2005). Different approaches are emerging in or der to c larify these models and get into wh at still is a 'black box'. For instance, W right and Nishii (2005) suggest the us e of more sophisticated frameworks integrating Organizational Behavior models and HR th rough the use of multilevel techniques. Alterna tively, Bowen and Ostroff (2004) propose to ex plore the influence of HR pr actices over the organizational climate, in wha t they call the 'strength of the HRM system', as a key to understand the link of HR with firm performance.

This paper analyses the relationship among HR policies, employee performance and business unit results in a large services organization over a one-year period. My primary objective is to look into the relationship between individual and business unit levels and dimensions of performance, and shed some light over t he role that the company's HR policies play in explaining their different sources of variability.

The study adds to current research ev idence in the field of S trategic HRM in several unique ways. First, instead of relying on per ceptions from experts or mana gers, HR practices are measured in terms of 'outcomes' upon ever y individual employee. Following Becker et al. (2001), I use 'lagging indicators' that reflect actual HR decisions over individuals throughout a one-year period. I am also including performance indicators coming both f rom the individual and the busi ness unit levels. I n addition, my study uses se veral measures of performance, including both 'hard' (financial and business) and 'soft' (customer satisfaction and competencies) variables. This opens up the discussion on perform ance as a multidimensional, multilevel construct (DeNisi, 2000; Truss, 2005), and ex plores the relationship between H R, employees' behaviors and fi rm performance from a di fferent perspective.

The characteristics of my research setting, the sales network of a Spanish financial services company, are also of interest for the purposes of this paper's contribution to the field. In the organization under study, every business unit is comprised of groups of employees who share the same business strategy, culture and corporate tools. All the branches contribute in a sort of 'clonical' way to c ompany results, and the goal-setting system defined by the Business Development department is assumed to control for external variables such as market potential or staffing per branch. Therefore, the present case study allows us to overcome some of t he issues of previous research in the field (Boselie et al, 2005; Doty and Shaw, 2001).

Theoretical framework

General SHRM models and conventional wisdom

The field of strat egic HR has provided a good deal of eviden ce supporting that HR policies do have an impa ct in fir m performance and that, therefore, people management should be a matter of discussion and investment on the part of companies.

As far as t heoretical approaches are concerned, the conceptualization of the relationship among HR practices and business strategy has given birth to three main approaches, named universalistic, contingent and configurational (for a recent integrative review of these approaches see Martín-Alcázar et al., 2005 [1]). Under the common assumption of the existence of a relationship among HR practices and firm outcomes, these models hypothesize different sets of variabl es and relations among them that ev entually influence corporate results. Thus, t he universalistic approach claims that there are p articular practices that, wherever implemented, show a posit ive impact on firm performan ce (Osterman, 1994; Becker and Ge rhart, 1996; Pfeffer, 1998). The contingent approach transcends the universalistic view b y introducing organizational and busin ess variables HR should be consistent with in order to improve org anizational outcomes (Lengnick-Hall and Lengnick-Hall, 1998; Deler y and Doty, 1996). Finally, the configurational approach adds the ne ed to center on the pattern of HR practices in a systemic way rather than just considering individual effects (Miles and Snow, 1984; Ichniowski et al, 1997). Empirical r esearch under either of these lines turned out especially fruitful in the decade of the 90's (Huselid, 1995; MacDuffie, 1996; Delery and Doty, 1996; Pfeff er, 1998; Becker and Gerhart, 1999) and relevant empirical work supported either of the models and created a critical mass of evidence.

Though most of the research has been performed with US samples, several studies carried out within the European cont ext with the same kind of methods show ver y similar results (Guest et al., 2003; d'A rcimoles, 1997). In the sp ecific case of Spain, res earch also provides evidence of the existence of HR practices that may match the contingent and configurational models (Camelo et al., 2004). As for the relationship of HR with firm performance, analyses over a sample o f 130 Spanish companies from di fferent sectors shows th e existence of HR predictors of firm per formance, such as intern al market, extensive training or ex cellence in selection, which are very similar as the ones reported by Ulrich et al. (2005) (Simón, 2003). Significant differences were also found in the use o f several practices between those companies ranked in t he top ran ge of EBITDA (Earnings Before Interests, Taxes, Depreciations and Amo rtizations) per emplo yee and the ones in the lower levels of the ranking, pointing at the e xistence of a set of cross-sectorial best practices as far as this financial indicator is concerned (Simón and Rojo, 2004).

Research methods in SHRM

A different panorama is however obtained when there is a shi ft from the macro to a micro perspective and individual levels of an alysis are involved in the anal ysis. As W right and Boswell (2002) note, macro analysis focus on variance across companies and assumes uniformity on the indiv idual level. Resear ch looking into the micro di mension has been scarce so far, but findings elicit a number of questions barely addressed in the SHRM literature. For instance, a study performed with a large sample of employees in the software industry in India (Paul and Anantharaman, 2003) shows no dire ct link am ong HR outcomes and firm per formance indicators. Conversely, results argue causal relationships between the HR level and individual outcomes such as employee retention or organizational commitment, which in turn h ave an i mpact over operational rather than financial outcomes. On the other hand, Gratton et al. (1999) propos e several types of linkages among HR and estimated levels of individual performance according to different time scales. Truss (2005), in a longitudinal case study of a UK subsidiary of Hewlett-Packard, also emphasizes the gap between

individual employees' behaviors and organizational performance indicators, and claims the existence of 'conflicting' evidences between intended and actual HR outcomes. These issues (long vs. short term strategies, intended policies vs. actual practices, the role of firm-financial vs. firm-operational vs. individual performance indicators) are just an illustration of the issues coming out when changing the research design in SHRM from the macro, cross-sectional to the micro within-company scopes of analysis.

Dimensions of performance

The definition of pe rformance underlying the measures used in the vast majority of studies has also been a m atter of debat e for t he last years, especially in the I/O field. The characterization of p erformance as a single-criterion construct, mostly focusing on an indicator of business results, has long been criticized as a main stumbling block to theoretical progress (Austin and Crespin, 2006). Under this assumption, researchers are bound to the search for the best possible measure of t he criterion, the so-called 'general-factor' or GP M (general performance measure). Althoug h the 'general-factor' argument has rec eived considerable empirical suppor t (see Viswesv aran et al, 2005 for a review), it has been growingly challenged by evidence pointing at the emergence of a set of multiple components that explain the latent structure of performance (Campbell et al., 1993). This approach goes beyond the sea rch for 'o bjective' measures as criterion and focuses on the identification of further latent variables. Research along these lines has given rise to several taxonomies and holistic models of performance (Scott and Eins tein, 2001; Wong and Snell, 2003; Paul and Anantharaman, 2003).

Regardless its role in the equ ation, results achievement is obviousl y a must in the performance debate (Huselid et al., 2005; Bennett et al., 2006). However, there is no consensus in the li terature about whether results should considered as merely one of the multiple dimensions of performance (Scott and Einstein, 2001) or as a different va riable reflecting the ev aluation of the results of performance, such as productivity or efficiency (Campbell, 1993). In any case, wider strategic approaches to business, and particularly work derived from the resource-based perspective (Barney, 1995, 2001) have long claimed that the contribution of individuals to the o rganization goes far beyond results achievement, especially when searching for long –term added value or sustainable competitive advantage. This being the case, the concept of performance should integrate both the 'hard' (results) and the 'soft' (competency-based) types of measures in order to gain comprehensiveness.

Different authors have worked on the integ ration of these multiple dimensions into a comprehensive model of performance. Most of them converge in the distinction between a set of factor focusing on the task or job specifi cs and another one which deals with a m yriad of 'add-ins' that ma y show up as a fun ction of individual traits, and that 'surround' t ask performance (Austin and Crespin, 2006). Borman and Motowidlo (199 3) coined the t erm 'contextual performance' and defined it as 'a set of interpersonal and volitional behaviors that support the social and motivational contex t in which or ganizational work is accomplished'. Along this line, Scott and Einstein (2001) propose three interrelated performance dimensions: outcome-based (whenever clearly-defined goals can be set), behavior- based (observable

behaviors relevant to individual work ro les) and competence-based (regarding skills/knowledge shown by employees in their daily activities).

Research questions

In the light of the findings discussed in reviewed literature, and the specific characteristics of the case study, the present research intends to answer the following questions:

1. To what extent can we find the associations among HR practices and different measures of fi rm performance suggested by SHRM research when w e shift to a micro-level of analysis?
2. Can performance differences be predicted by variations in HR pr actices, both at individual and branch levels?
3. Which HR practices are the most important predictors of task-oriented and context-oriented performance measures at the individual level? And in predicting financial and quality measures at branch level?

Research site

My research setting is one of the leading medium-sized financial services site in Spa in. Although it belongs to a large multinational holding, the top mana gement keeps a good deal of independence, both in busine ss strategy formulation and management style. The business strategy of the company is strongly oriented towards the customer.

The organization has recently experienced a lot of changes in terms of mission, values and HR policies. Thus, it has been making investments on employees' satisfaction, diversity and flexibility policies, with an ai m at 'increasing customer satisfaction through employee satisfaction'. The President is currently leading initiatives in order to balance the hiring and promotion of women and fostering diversity.

Approximately 85% of branch employees work under a sales goal-setting system that is defined by the organization's Business Development department. Only the teller position (20% of all branch employees) is subject to a un ion agreement that exempts workers from selling responsibilities. Tellers may, however, get out of the agreement on a voluntary basis and participate in some stages of th e selling process (mainly pre-sales and opportunit y-seeking). Whenever a sales is a chieved with h is/her participation, the teller shares the commission with the corresponding sales agent. There were 247 tellers under this scheme b y December 2005, who have been included in the study sample.

Branch performance is assessed mainly through a fi nancial indicator, the gross operating margin (GOM) controlled every quarter. A ratio of this measure per employee is used by HR to compound a classification of branches into 'under', 'av erage' and ' good'. Every branch also receives a 1-10 sc ore on C ustomer Satisfaction, an i ndex that combines operational indicators (complaints submitted, time to sor t out incidences, etc) and a yearly customer survey.

Individual sales are compensated through a system of no- cap-commissions with quotas pe r position, payable to emp loyees on a quarterl y basis. As for man y of the H R policies, one of the company's reported distinct features is that t hey operate on a hi ghly personalized, non-seasonal basis. Thus, emplo yees can re ceive salary increases throughout the year, according to their evolution and i ndividual merit. The organization has also imp lemented a set o f recognition actions that consist of meetings with the President or the CEO and reward trips with partners to tourist d estinations, cruises, etc. Promotion is also non-seasonal, as w ell as branch rotation.

Branch employees are subject to a performance appraisal process, run by branch managers on a yearly basis. The HR department also evaluates every employee in terms of job matching and potential. These data are an important input for informin g decisions on development policies.

Sample

The starting sample co mprised 5213 emplo yees and 1615 bran ches. For the purposes o f statistical analysis, from the whole sales ne twork population I took out the branch es that manage private banking accounts [4] (8% of total sample). Also, sin ce my individual productivity measure is directly related to sales, I had to exclude those tellers not involved in selling. Finally, the use of multivariate analyses required to take out the outliers for individual performance (4.8% of total). My final sample comprised 4542 employees and 1514 branches. Tables 1 and 2 show the final distribution of employees across job positions and branch size. All the measures included in the dataset refer to the year 2005.

[Tables 1 and 2 about here]

Dependent Variables

Branch Level: Two m easures are used i n order to characterize branch performance. The financial indicator used is gross operating margin (GOM) per emplo yee (in €), a common ratio in the financial services sector. A m easure of cust omer care, Customer Relationship Quality (CRQ), is also included as a scale variable scoring 1 (very negative) to 10 (excellent), with '5' assumed to be neutral.

Individual level: The rough financial measure of individual productivity, commissions earned throughout the year, required a transfo rmation in order to control for the effe cts of job position and variations in seniority and sales potential, the latter assumed to be represented by the yearly fixed salary. Individual productivity was therefore calculated as total amount of commissions as a percen tage of fixed salary. This variable was further converted to standard z-scores, taking for every case the mean and standard deviation of the corresponding position.

Since the commission s ystem is quota-based, in the original database only those employees beating the quota receive a positive value, otherwise scoring 0. This pr oblem has la rgely determined the type of statistical analysis performed, and a lot of information regarding the behavior of this group is missed. In order to cope with this limitation, I transformed the measure into a categorical variable with three groups: underperformers (not reaching the sales

quota, n=1050), mid-performers (score up to the average of their posit ion, n=1986) and outperformers (scores above the average, n=1335).

I used three more measures in order to cover contextual aspects of individual performance:

- *Adequacy*: assesses the matching degree of the employee with his/her current position (1-lack; 2-adequate: 3-High).

- *Potential*: estimation of potential for future uppe r-level positions (1-poor; 2-aver age; 3-high)

These two measures are scored by the HR business partner, on the basis o f the follow-up and interviews with the employee throughout the year.

- *Manager's rating*: (scale from 1 -very bad to 5-excellent). Scored by supervisors (branch managers or area directors). As stated in the ev aluation handbook, the sco re has to r eflect basically the competence and autonomy shown by the employee in developing the functions according to his/her position.

Independent variables

I use two sets of vari ables in order to sea rch for predictors of the dif ferent dimensions of performance defined above. The first one com prises a number of va riables assumed to measure the construct of human capital over wh ich the HR policies operate. Those variables are:
- *Gender: coded as a dummy variable (1-male)*

- *age:* in years

- *education*: none (1), pri mary (2), high school (3), vocational (4), U n. Diploma (5), Un. Bachelor (6), postgraduate (7).

- *company tenure*: in years

- *job tenure*: in years

- *branch tenure*: in years

The second group of IVs comprises the lagging indicators of HR decisions implemented over individuals over 2005. The variables in this case are:
- *Training*: number of training actions attended.

- *Promotion*: promoted / not promoted.

- *Salary increase (%)*: total percentage of annual salary increased.

- *Salary increase (nb.)*: number of salary increases over the year.

- *Branch rotation*: number of branch changes.

- *Distinction trip:* number of awards received.

- *Meetings Top*: number of meetings held with President/CEO.

Control variable

Unit size has largely been reported as having an impact over HR and performance results (Boselie et al, 2005). Therefore I introduced branch size as a categorical variable after the classification that the comapny uses for business purposes: 1-2, 3, 4,5, 5-10 and over 10 employees.

Results

Means and standard deviations on all variables included in the analysis are noted in Table 3. Correlations are presented in Table 4 [2]. As descri ptive data show, the company has traditionally followed an internal market strategy, and offers stability as an important part of its psychological contract, hence the high levels of tenure. The ac cess of women to different positions is more recent, and t hey hold higher levels of educ ation. However, wom en are concentrated on sales agent positions, with their access to supervisor and manager levels still being very limited.

[Tables 3 and 4 about here]

Descriptive analysis

A study of descriptive data when segmenting the sample per position suggests different types of HR outcomes in r elation to job groups (Table 5). Branch managers receive a far greater number of training actions (6.8 by contrast with 5.11, 5.13 and 3.49 in the rest of the groups), more promotions along the year, a larger number of salary increases (22% had a double rise and 4.5% a triple one) and cons equently a lar ger total amount of salary increase (11.55%). They also have the largest record of access to recognition actions.

[Tables 5 about here]

HR outcomes over sup ervisors remain very similar to those of sales agents, even though the former receive better evaluations in adequacy, potential and manager' ratings [3]. Supervisors are more similar to managers regarding the number of salary increases (19% had more than 1 increase) though the tota l increase is much lowe r. They are the group with a larger level of stability as f ar as br anch rotation is concerne d. The group of tellers is the one with lower levels of training, salary increase (nb. and %) and recognition actions. They are also most subject to rotation decisions. As regards adequacy and potential measures, their assessment is also below the rest of t he groups. However, they receive better managers' rates than sales agents.

How do t hese HR actions and m easures relate with hard perfo rmance indicators, both at individual and business un it levels? A pr ior striking finding is tha t the two me asures of branch performance (GOM/employee and CRQ) present a very weak, negative correlation (-0,053). Since these va riables represent the t wo main strate gic issues, namel y results achievement and cust omer relationship quality, the level of linear independence between

them points to a n issue of conflicting business aims that has important implications for HR management.

Individual productivity shows a moderate correlation with branch financial perfo rmance (.293). Even more surprising, the correlation of employees' productivity with CRQ is close to 0. It is also interesting to note that individual productivity is not correlated to an y human capital variable (age=-.057, education=.073; company tenure=-.061, job tenure=.002). Similarly, correlations of this measure with HR variables is very low.

The association of the other individual pe rformance measures with human capital gets stronger. Adequacy and potential showed moderate, negative correlations with age (-.112 and -.412), company tenure (-.102 and . -392) and positive with education (.111 and .315) . Managers' ratings correlations, however, fall below 0.05 in all the cases. The three variables keep a moderate positive rel ationship with individual productivity (.184, .179 and .128 , respectively), and all of them correlate below 0.05 with the branch performance measures.

Results also note a poor correlation between performance at the unit level and an y of the HR or HC indicators. Onl y branch tenure seem to be a pr edictor of branch performance. My control variable, branch size, has t he largest impact over t he branch level measures (r(GOM/emp)=.206, r(CRQ)=-.203).

Discriminant analysis

Given the nature of the relationship among the di fferent variables depicte d by this anal ysis, my next step was to search for the combination, both of human capital and HR variables that would best explain the differences among poor, mid and out-performers, on the one hand, and among branches doing good, average and poor ly, on the other. To thi s purpose, several discriminant analyses were performed using the two sets of IVs as predictors of membership, and using individual pr oductivity, adequacy, potential, branch finan cial performance and CRQ as grouping vari ables. The measure of managers' ratings was tak en out of the an alysis on the grounds of a extremely weak correlation with most of the v ariables under study. Multiple discriminant analysis was chosen among other techniques (such as multiple regression analysis) because the chara cteristics of the productivit y measure r equired to classify the cases in advance into three diffe rent groups, those re ceiving 0 (did not reach the quota) and the other two groups having the v alue of their produ ctivity once job position is controlled for.

The objective of multiple discriminant anal ysis is to predict group membership from a set of predictors, which may combine into one or several discriminant functions. This multiva riate technique is indicated in those cases where groups are pre-defined, and the objective is to find the best set of predictors for differentiating among them. There ma y be as many discriminant functions as t here are degrees of fr eedom for either the number of g roups or variables, whichever is smaller. Each of the functions is orthogonal to the others and ex plains a certain percentage of t he variance of t he difference between one or sever al groups and the rest of them (Tabachnick and Fidell, 2006).

This technique is highly sensitive to the existence of outliers (Hair, 1998; Tabachnick and Fidell, 2006). Therefore, of the original 5213 cases, I took out those cases (i) with z values over 2.50 in the case of individual productivity and (ii) with values over P80 in the GOM/employee. Additionally, 492 cases were dropped from the analysis due to missing data. In a further analysis, missing data appeared to be randomly scattered throughout groups and predictors.

For all the DVs, two discriminant functions were calculated, and all of them were significant (p<.000). Equally, in all the analyses the first discriminant function separates the best cases (outperformers, the most adequate, those with more potential and the best branches for GOM and CRQ) from the other two groups (average and below). The second discriminant functions were much less clear, and their effect sizes (squared canonical correlations) were below 0,03. Therefore, these second functions were not interpreted for the purposes of data discussion. Loading matrices, Chi-squared values, canonical correlations and percents of variance for all the functions are shown in Table 6.

[Table 6 about here]

The loading matrix shows the correlation of every IV with the different discriminant functions. Differences between individual and branch levels of analysis can be observed at first glance. Most HR variables show a positive impact as predictors of differences in all individual measures, while only one HR practice (training) presents a correlation with performance at the unit level, this relation being of opposite sign.

The percentage of fix salary increase appears to be the strongest HR correlate of all the individual measures. Equally, salary increases, training actions and meetings with top management also show a relationship with both individual results and contextual measures. Productivity and adequacy follow very similar patterns of weights, while potential shows the strongest correlations with salary improvements and training, and adds the relationship with promotion, at the same time being less affected by recognition actions.

The study of human capital IVs and their role as predictors of performance differences emphasizes the disagreement between the individual and unit levels of analysis. Particularly in the case of GOM per employee, all the correlations receive signs inverse than their equivalent with individual measures. Branch tenure is a strong predictor of differences in both branch results and customer relationship quality. The control variable, branch size, had a strong correlation with both indicators as well.

In order to explore to what extent differences in branch performance can be predicted through individuals' outcomes I made one last set of discriminant analysis, this time using individual performance measures as predictors and both branch measures respectively as grouping variables. The results of the analysis for GOM/employee are shown in Table 7. Individual productivity is the strongest predictor in the function, and adequacy and managers' ratings provide a minimum explanation power to the differences in branch performance. Potential was the only individual variable that did not show relationship with performance at the unit

level. As f ar as CRQ is conce rned, none of the discriminant functio ns were significant (p<0,05).

[Table 7 about here]

Discussion

The main pu rpose of this work w as to stud y the relationship among human capital, HR policies and different measures of performance in the context of a single company. Using this framework, I searched for empirical support to the models and assumptions that have consolidated in the field of Strategic HR in the last few decades. S ince I am at the very early stages of the research project, this paper mainly covers preliminary quantitative analyses, and results are discussed on the basis of m y knowledge and experience of collaboration with the company, as well as a small set of 'ad hoc' te lephone interviews so fa r with HR managers. My approach is therefore very exploratory at this stage.

One surprising finding is the weak r elationship among the different performance variables included in the study. Correlations are lower than what I would initially expect for a branch, namely, a small group of salespeople that focus on developing high-quality relationships with customers in o rder to in crease revenue and/or profit. One key to understand this appa rent surprise is to de lve into the nature of the f inancial indicator that is us ed as a measure of branch performance. Gross Operating Margin results from adding to th e benefits of sa les those obtained by commissions coming from the maintenance of current financial activity in the branches. There may be a fai r distance between employees' outcomes and this indicator, which depends on many external factors (market, regulations, competition, etc.). Data coming out of the discriminant analyses support this absence of rel ationship between this indicator and human resources outcomes, with training being the only HR practice having a (negative, on the basis of our data) correlation with branch performance.

Interestingly, data also depict a mismatch between financial results and quality of customer relationship management. Though the effect size of the relationship is very low, it seems that actions oriented tow ards improving customer satisfaction might prevent from further financial gains. Results show a very weak relationship among practically all 'human' variables and C ustomer satisfaction as t he company measures it. Those resul ts are al so surprising and deserve further analysis and study. Since the company is claiming to attach a lot of val ue to customer satisfaction, a case could be made here for the distinction between 'intended' and 'actual' business strategies and the possible conflicts among them, as well as for the implications for HR (Gratton et al., 1999; Wright, 2002). In any case, these findings lend support to the ar guments put forward b y Truss (2005) and Paul and Ananthamaran (2004) that when shifting from the corporate, cross-company perspective to less a ggregated levels of analysis, the apparent alignment among business goals gets diffused, and can even turn contradictory. The strategic design of HR policies with such distant business criteria may become a big challenge for practitioners, since (i) business goals may require conflicting objectives for employees and (ii) only a very small part of the variability of the performance measure can be explained by what people actually do.

Another issue which has received a vast discussion in the academic literature has to do with the consistency of practices of groups of practices, that would reflect the existence of an HR strategy. Our data show that different patterns of HR outcomes emerge according to job positions: as a group, branch managers receive the larger number of recognitions, training actions and salary increases. The observation of these patterns supports previous research pointing at the existence of distinct employment systems depending on their strategic value for the company (Lepak and Snell, 1999; Delery and Shaw, 2001).

The characterization of individual performance measures in terms of their relationship with HR practices and financial unit performance opens interesting questions for further analysis. While adequacy (a task-related performance dimension) is close to the HR pattern of predictors shown for productivity, the potential measure may reflect a different type of HR 'strategy', which comprises more training, promotion and larger improvements in fixed salary. The pattern of loadings in the discriminant functions outlines different strategies addressing just 'good salespeople' by contrast with those showing high potential, with the latter receiving larger HR investments. This fact would point to an issue of different sorts of HR alignment with 'hard' and 'soft' individual outcomes. It would also suggest that the time dimension (with potential representing a longer term perspective) should be a matter of research when assessing the effectiveness and relevance of HR for the purposes of increasing firm performance.

Conclusions

The primary purpose of the present case study is to explore the relationship between human capital, HR policies and firm performance at individual and business unit levels. To this purpose, a set of correlation and multivariate discriminant analyses were carried out using a number of general human capital variables and a set 'lagging indicators' of HR policies, using the different performance measures as dependent variables.

This case study approach has proven useful in rising research issues for understanding the latent structure of the relationship among the above sets of variables. Though the results should be viewed as preliminary, findings may challenge some of the assumptions of SHRM such as the existence of a direct relation between HR practices and corporate performance, as well as the need for a clear match between (clear and distinct) business goals and HR in order for the company to gain competitive advantage. As regards this study, the existence of moderate correlations between several measures of individual and business unit performance indicate that these variables are not completely independent. However, the weakness of their linear relationship would limit HR capability to directly influence this level of firm results, and therefore the HR function should search for alternate measures, closer to its very own nature and functioning.

The results of the discriminant analyses would support a SHRM model (Figure 1) in which HR practices are not directly influencing firm performance, but rather having an impact through their combination with a pool of human capital characteristics not clear yet at this

point of the research. At the same time, some individual performance measures do not show a direct impact over uni t analysis. However, this particular measure is the object of a di stinct HR treatment, suggesting the existence of different HR approaches to employees not directly related to shor t-term business results. Qualitative analysis and further data collection and study are necessary in order to set a clear model of the combination of these variables for the purposes of maximizing performance.

The study presents a n umber of limitations th at should be taken into account as r egards generalization of result s. The measure o f individual productivity does not refle ct the continuum of emplo yees' performance, but ju st the border differentiating salespeople under and over a quota. Although the measure presents a 'realistic' description of underperformers from the company point of view, and certainly allows for a clear differentiation into degrees of performance, the validity of results is limited by the lack of complete data for this group. The set of HR practices is neither complete, excluding some of the traditionally considered 'high performance' practices, such as selection, participation or t eamwork. Since many of them are not included in the formal records of the company, further field work is necessary either to confirm their absence in the context of the company or to consider them as 'informal practices' and search for data collection accordingly.

More in-depth, qualitative analysis is required in or der to complete the case study, matching my crude measures of performance with employees' perceptions of t he impact of those practices in variables as relevant as commitment and satisfaction.

Even if results are still preliminary, the use of the case study research method and some of the findings discussed provi de future r esearchers with empirical evidence supporting a di fferent perspective to study HR practices and their relationship with performance from a st rategic viewpoint.

Finally, results also bring up interesting takeaways for practitioners in the field. Along these lines, the study contributes to bringing together the academic and practice fields, in showing how a scientific de cision-making (Boudreau, 2005) or evidenc e-based approach (Rousseau, 2005; Sutton and Pfeffer, 2006) to or ganizational problems can help HR managers in becoming more efficient in their daily work.

References

Austin, J.T., & Crespin, T.R. (2006). Problems of criteria in Industrial and Organizational Psychology: Progress, Problems and Prospects. In W. Bennet, C. E. Lance, & D. J. Woehr (Eds.), Performance Measurement: Current Perspectives and Future Practices. (pp. 9-48). Mahwah: LEA.

Barney, J.B. (1995). Looking inside fo r competitive advanta ge. Academ y of Management Executive, 9(4), 49-61.

Barney, J.B. (2001). I s the resour ce-based "view" a useful persp ective for strate gic management research? Yes. Academy of Management Review, 26(1), 41-55.

Becker, B., & Gerhart, B. (1996). The impact of human resour ce management on organizational performance: progress and prospects. Ac ademy of Management Journal, 39(4), 779-801.

Becker, B.E., Huselid, M., & Ulrich, D. (2001). The HR Scorecard: Linking People, Strategy and Performance. Harvard Business School Press.

Bennett, W., Lance, C.E., & Woehr, D.J. (2006). Performance Me asurement: Current perspectives and future challenges. Mahwah: LEA.

Benoit, W., & Merrigan, J. (2004). Enfo rcement of Non-Competition Agreements: Developments in Massachusetts. Employee Relations Law Journal, 30(2), 62-67.

Borman, W.C., & Motowidlo, S.J. (1993). Expanding the criterion domain to include elements of contextual performance. In N. Schmitt & W. C. B orman (Eds.), Personnel Selection in Organizations. (pp. 71-98). San Francisco: Jossey Bass.

Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. Human Resource Management Journal, 15(3), 67-94.

Bowen, D.E., & Ostroff, C. (2004). Understanding HRM-firm performance linkages: the role of the 'strenght' of the HRM system. Academy of Management Review, 29(2), 203-221.

Camelo, C., Martín, F., Romero, P.M., & Valle, R. (2004) . Human Resources Management in Spain: is it possible to speak of a typical model? International Journal of Human Resource Management, 15(6), 935-958.

Campbell, J.P., McCloy, R.A., Oppler, S.H., & Sager, C.E. (1993). A Theor y of Performance. In N. Schmitt & W. C. a . A. B orman (Eds.), Pe rsonnel selection in organizations. (pp. 35-70). San Francisco: Jossey Bass.

Delery, J.E., & Shaw, J .D. (2001). The strategic management of people in work

organizations: review, s ynthesis and ex tension. In Anonymous, <u>Resear ch in Personnel and Human Resource Management</u>. (pp. 165-197).

DeNisi, A. (2000). Performance appraisal and performance management: a multilevel analysis. In K. J. Klein & S. W. J. Kozlowski (Eds.), <u>Multilevel theory: Research and Methods in Organizations</u>. (pp. 121-156). San Francisco: Jossey Bass.

d'Arcimoles, C.H. (1997). Human resource policies and compan y performance: A quantitative approach using longitudinal data. <u>Organization Studies, 18</u>, 857-874.

Gratton, L., Hope-Valley, V., Stiles, P., & Truss, C. (1999). Linking individual performance to business strategy: The p eople process model. <u>Human Resource Management, 38</u>(1), 17-33.

Guest, D., Conway, N., & Dewe, P. (2004). Using sequential t ree analysis to search for "bundles" of HR practices. <u>Human Resource Management Journal, 14</u>(1), 79-97.

Guest, D., Michie, J., Conway, N., & Sheehan, M. (2003). Human Resource Management and Corporate Performance in the UK. <u>British Journal of Industrial Relations, 41</u>(2), 291-314.

Hair, J.F., Anderson, R.E., & Tatham, R.L. <u>Multiva riate Data Analysis with Re adings</u>. (2nd ed.). New York: Macmillan Publishing Co.

Huselid, M.A. (1995). The Impact of Human Resource Management Practices on Turnover, Productivity, and Corpor ate Financial Performance. <u>A cademy of Management Journal, 38</u>(3), 635-672.

Ichniowski, C., Shaw, K., & Prennushi, G. (1997). Th e effects of Human Resource Management Practices on Productivity: A St udy of Steel Finishing Lines. <u>The American Economic Review, 87</u>, 291-313.

Lengnick-Hall, C.A., & Lengnick-Hall, M.L. (1998). Strategic Human Resource Management: a review of the literatur e and a proposed typology. <u>Ac ademy of Management Review, 13</u>(3), 454-470.

MacDuffie, J.P. (1995). Human Resource Bundles and Manufa cturing Performance: Organizational Logic and Flexible Production Systems in the W orld Auto Industry. <u>Industrial and Labor Relations, 48</u>(2), 197-221.

Martin-Alcazar, F., Romero-Fernandez, P.M., & Sánchez-Gardey, G. (2005). Strateg ic Human Resource Management: integrating the universalistic, contingent, configurational and cont extual perspectives. <u>International Journal of HRM, 16 </u>(5), 633-659.

Miles, R., & Snow, C. (1984). Designing strategic human resource systems.

Organizational Dynamics, Summer, 36-52.

Osterman, P. (1994). How Common is Workplace Transformation and Who Adopts it? Industrial and Labor Relations Review, 47, 173-188.

Paul, A.K., & Anantharaman, R.N. (2003). Impact of people management practices on organizational performance: analysis of a causal model. Int. J. of Human Resource Management, 14, 1246–1266

Pfeffer, J. (1998). The Human Equation. Harvard Business School Press.

Pfeffer, J.& Sutton, R.I. (2006). Evidence-based management. Harvard Business Review, 63-74.

Scott, S.G., & Einstein, W.O. (2001). Stretegic performance appraisal in team-based organizations: one size does not fit all. Academy of Management Executive, 15(2), 107-116.

Simón, C. Indicadores de Capital Humano: cómo cuantificar la gestión de personas. Revista de Empresa, 6, 84-96.

Simón, C., & Rojo, P. The incidence of Human Resource Management on Corporate Performance in Spain. (2004). Anonymous. Madrid: Instituto de Empresa Business School.

Truss, C. (2005). Complexities and controversies in linking HRM with organizational outcomes. Journal of Management Studies, 38(8), 1122-1149.

Tubré, T., Arthur, W., & Bennett, W. (2006). General Models of Job Performance: Theory and Practice. In W. Bennett, C. E. Lance, & D. J. Woehr (Eds.), Performance Measurement: Current Perspectives and Future Challenges. (pp. 175-204). Mahwah: LEA.

Viswesvaran, C., Schmitt, F.L., & Ones, D.S. (2005). Is there a general factor in ratings of job performance? A meta-analytic framework for disentangling substantive and error influences. Journal of Applied Psychology, 90((1)), 108-131.

Wong, Y.L., & Snell, R.S. (2003). Employee Workplace Effectiveness: Implications for Performance Management Practices and Research. Journal of General Management, 29(2), 53-69.

Wright, P.M., & Boswell, W.R. (2002). Desegregating HRM: A Review and Synthesis of Micro and Macro Human Resource Management Research. Journal of Management, 28(3), 247-276.

Wright, P.M., Gardner, T.M., Moynihan, L.M., & Allen, M.R. (2005). The Relationship between HR practices and firm performance: examining causal order. Personnel Psychology, 58, 409-446.

Wright, P.M., Gardn er, T.M., Mo ynihan, L.M., Park, H.J ., Gerhart, B., & Delery, J.E. (2001). Me asurement error in r esearch on human resources and firm performance: additional data and suggestions for future research. <u>Personnel Ps ychology, 54</u>, 875-901.

Wright, P.M., & Macmahan, G.C. (1992). Theoretical Perspectives for Strategic Human Resource Management. <u>Journal of Management, 18</u>(2), 295-320.

Wright, P.M., & Nishii, L.H. <u>Strategic HRM and O rganizational Behavior: Integrating Multiple Levels of analysis</u>. (un pub)

Notes

[1] These authors also include the a fourth perspective, namely the contextual approach, that argues the ne ed to c onsider the broader cultural and institutional context in or der to understand latent forces impacting HRM.

[2] Asterisks indicate $p<0.01$ is included in the ta ble. However, they are not relevant for m y purposes because as the whole population is ava ilable no statistical infere nce is involved in the analysis.

[3] Every branch manager evaluates all the other positions in his/her team.

[4] This a very marginal type of business for the company that however distorts performance data, since private banki ng transactions draw significantly higher levels of g ross operating margin and sales commissions.

Table 1. Sample distribution by job type

		Frequency	Percent
Branch Manager	Male	1051	74,6
	Female	358	25,4
	Total	1409	100,0
Sales Agent	Male	885	54,4
	Female	742	45,6
	Total	1627	100,0
Supervisor	Male	867	68,9
	Female	392	31,1
	Total	1259	100,0
Teller	Male	179	72,5
	Female	68	27,5
	Total	247	100,0
Total sample	Total	4542	

Table 2. Sample distribution by branch size

		Frequency	Percent
Valid	1 - 2 employees	539	35,6
	3 employees	507	33,5
	4 employees	298	19,7
	5 employees	104	6,8
	5 - 10 employees	66	4,4
	Total	1514	100,0

Table 3. Descriptive statistics

	Mean	Std. Deviation
IND. PRODUCTIVITY	2,06	0,735
ADEQUACY	1,999	0,429
POTENTIAL	1,934	0,564
MANAGERS' RATINGS	3,647	0,942
GENDER	0,66	0,475
AGE	39,970	8,662
EDUCATION	3,856	1,815
COMPANY TENURE	17,743	12,207
JOB TENURE	2,967	3,935
BRANCH TENURE	4,608	4,617
TRAINING	5,558	3,688
SALARY INC. %	7,429	8,650
CHANGES IN SALARY	1,204	0,470
BRANCH ROTATION	0,289	0,545
PROMOTION	1,092	0,288
MEETINGS TOP MANAGEMENT	0,159	0,495
DISTINCTION TRIPS	0,207	0,566
GOM PER EMPLOYEE	190798,834	61760,198
CRQ	8,093	0,697
BRANCH SIZE	3,020	1,415

Table 4. Correlation matrix

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	1. INDIVIDUAL PRODUCTIVITY																		
VDs	2. ADEQUACY	,184(**)																	
IND. LEVEL	3. POTENTIAL	,179(**)	,414(**)																
	4. MANAGERS' RATINGS	,128(**)	,081(**)	,054(**)															
	5. AGE	-,057(**)	-,112(**)	-,412(**)	,041(**)														
	6. EDUCATION	,073(**)	,111(**)	,315(**)	0,008	-,646(**)													
VIs	7. COMPANY TENURE	-,061(**)	-,102(**)	-,392(**)	,037(*)	,913(**)	-,703(**)												
HC	8. JOB TENURE	-0,002	-0,016	-,035(*)	0,002	,225(**)	-,149(**)	,204(**)											
	9. BRANCH TENURE	,080(**)	-0,018	-,161(**)	,044(**)	,440(**)	-,332(**)	,456(**)	,249(**)										
	10. TRAINING	,046(**)	,068(**)	,188(**)	-0,020	-,233(**)	,180(**)	-,212(**)	,061(**)	-,096(**)									
CONTROL	11. BRANCH SIZE	,221(**)	,118(**)	,078(**)	,093(**)	-,043(**)	,059(**)	-,040(**)	-,128(**)	-0,01175	-,051(**)								
	12. SALARY INC. %	,109(**)	,174(**)	,334(**)	-0,029	-,515(**)	,350(**)	-,453(**)	-,121(**)	-,245(**)	,198(**)	-,044(**)							
	13. CHANGES IN SALARY	0,017	,043(**)	,148(**)	-,041(**)	-,178(**)	,151(*)	-,170(**)	-,113(**)	-,199(**)	,116(**)	-,048(**)	,535(**)						
VIs	14. BRANCH ROTATION	-,064(**)	-0,021	,064(**)	-,047(**)	-,234(**)	,199(**)	-,231(**)	-,168(**)	-,413(**)	,085(**)	-0,026	,344(**)	,411(**)					
HR	15. PROMOTION	-0,007	0,090	,137(**)	-,052(**)	-,206(**)	,158(**)	-,192(**)	-,173(**)	-,206(**)	,104(**)	-,081(**)	,491(**)	,674(**)	,447(**)				
	16. MEETINGS WITH TOP MANAGEME	,187(**)	,106(**)	,143(**)	,071(**)	-,041(**)	,062(**)	-,061(**)	,274(**)	-,030(*)	,109(**)	-0,0196	,090(**)	0,014	-0,009	-0,019			
	17. DISTINCTION TRIPS	,190(**)	0,035	,050(**)	,073(**)	,108(**)	-,050(**)	,089(**)	,237(**)	,093(**)	0,029	,077(**)	-0,021	-,036(*)	-,067(**)	-,066(**)	,336(**)		
VDs	18. GOM PER EMPLOYEE	,293(**)	,076(**)	-,038(*)	,054(**)	,088(**)	-,071(**)	,098(**)	,036(*)	,133(**)	-,086(**)	,206(**)	-,039(*)	-0,02044	-,079(**)	-,051(**)	,049(**)	,087(**)	
UNIT LEVEL	19. CSI	0,006	-,038(**)	-0,012	0,006	,052(**)	-,067(**)	,055(**)	,092(**)	,164(**)	0,014	-,203(**)	-,055(**)	-,046(**)	-,092(**)	-,044(**)	,035(*)	0,006	-,053(**)

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 5. Descriptives of HR 'intensiveness' per job position

	Branch Manager		Sales Agent		Supervisor		Teller	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
TRAINING	6,81	3,70	5,12	3,87	5,13	3,15	3,50	2,79
SALARY INC. %	11,56	11,53	5,65	6,00	5,53	6,02	3,66	3,71
CHANGES IN SALARY	1,32	0,56	1,10	0,33	1,24	0,50	1,11	0,37
BRANCH ROTATION	0,33	0,55	0,29	0,55	0,22	0,49	0,37	0,66
PROMOTION	1,14	0,35	1,05	0,22	1,09	0,28	1,06	0,25
MEETINGS WITH TOP MANAGEMENT	0,49	0,78	0,01	0,12	0,01	0,11	0,01	0,09
DISTINCTION TRIPS	0,43	0,78	0,10	0,40	0,13	0,42	0,04	0,22

Table 6. Comparison of discriminant functions among DVs

| | INDIVIDUAL LEVEL | | | UNIT LEVEL | |
	PRODUCTIVITY	ADEQUACY	POTENTIAL	GOM/EMP	CRQ
HUMAN CAPITAL					
GENDER		.136		-.185	.243
AGE	-.394	-.497	**-.844**	.232	
EDUCATION		.444	.617	-.209	.271
COMPANY TENURE	-.374	-.461	-.784	.256	
JOB TENURE	.256				.327
BRANCH TENURE				**.480**	**.620**
HUMAN RESOURCES					
TRAINING	.228	.279	.344	**-.329**	
SALARY INC. %	**.431**	**.646**	**.690**		
SALARY INC. NB.	.126	.184	.308		
BRANCH ROTATION					
PROMOTION			.305		
MEETINGS_TOP	**.590**	.313	.282		
DISTINCTION TRIPS	**.502**	.338			
BRANCH SIZE		**.478**	.123	**.765**	**.662**
% Variance	85,9	89,8	94,6	88,8	93,2
Canonical Correlation	0,421	0,278	0,48	0,250	0,251
Chi-Square	914,605	301,133	930,884	288,647	270,241
Sig.	0,000	0,000	0,000	0,000	0,000

Bold figures represent coefficients with canonical correlations greater than ,30.

Table 7. Discriminant function for GOM/emp as DV

UNIT LEVEL	Function	
	Function	Can. Corr.
IND. PRODUCTIVITY	,962(*)	,972
ADEQUACY	,270(*)	,228
MANAGERS' RATINGS	,164(*)	-.266
POTENTIAL	0,006	,032

% Variance	97.3
Canonical Correlation	0,305
Chi-Square	331,99
Sig.	<0,001

NOTAS

NOTAS