Human Resource Management and Corporate Performance in Small Firms

Jonathan Michie
University of Birmingham, UK
j.michie@bham.ac.uk[1]
and
Maura Sheehan
Graduate School of Management
University of Dallas, USA[2]

Abstract

This paper contributes to the human resource management and performance literature by examining these relationships in a sample of small firms in the UK and US. We examine the types of HR practices and policies used, how these practices vary between firms, and the relationship between these practices and firm performance. Using original data collected from a sample of small firms in matched manufacturing and service sectors in the UK and US, we find firstly, a wide *range of usage* of HR practices, including some degree of strategic HR; secondly, a *positive relationship* between HR policies and performance; and thirdly, that HR is more likely to contribute to competitive success when introduced strategically as part of an integrated and coherent package, that is, as part of a *bundle* of innovative work practices. These findings are consistent with our previous research into the links between HR practices and performance in large organizations. The results are broadly consistent across the two countries, although legal and institutional differences produce some variation.

Keywords: human resource management, small firms, High Commitment Work Systems, corporate performance.

Introduction

A positive association has generally been found between the use of what might be termed 'progressive' human resource practices on the one hand, and corporate performance on the other (see for example Huselid, 1995; Ichniowski *et al*., 1997). However, the strength and significance of the associations found varies across studies. In addition, such associations have been found to vary according to specified characteristics, such as the corporate strategies pursued by the firms in question. The implication is that the positive association between human resource practices on the one hand, and corporate performance on the other, might not apply to a firm lacking the specific characteristics – such as pursuing a quality-enhancing rather than cost-cutting strategy – that are particularly associated with these positive outcomes.

To make further advance, this area of study needs to pursue two avenues of research. Firstly, as argued by Wall and Wood (2005), large scale studies able to construct the sort of time series data covering a sufficient number of firms to allow an analysis of causal processes. And secondly, studies that analyze firms according to particular characteristics, to determine whether the general results from the literature hold equally in these more specific investigations. The current paper represents one such contribution, analyzing the HR-performance relation within small firms.

The special issue of *Human Resource Management* on SMEs observed that 'The science and practice of entrepreneurship has advanced dramatically in recent years' and that 'The general business press, too frequently highlights the importance of SMEs for job creation and economic growth'. It asked 'How has the field of human resource management made a contribution to the emergent field?', concluding 'Perhaps surprisingly our contribution has been very limited', calling for more research and a greater dialogue on HR's roles and responsibilities within SMEs (Huselid, 2003: 297).

The present paper is a response to that call. It builds upon our previous work on the links between human resource management and corporate performance in large UK companies by examining these relationships in small firms (employing between 10 and 100 employees) and places the analysis in an international context by comparing results between UK and US small firms in matched industries. Our previous work found, firstly, positive correlations between the use of HR practices and corporate performance and, secondly, that this relationship was strengthened when HR practices were internally consistent, or 'bundled' (Michie & Sheehan 2001, 2003). The present paper investigates whether such relationships are found in small firms and to the extent that they are, examines whether the strengths of the relationships are as significant and consistent in small firms as in large firms; the paper also examines the similarities and differences between UK and US small firms in terms of HR practices used, and in terms of the relation between these and company performance.

Our findings will be important for those in small firms with responsibility for HR. There is a large literature suggesting that firms should invest in human resource management practices if they wish to improve their corporate performance, including both productivity and profitability. And even that they should invest in complete 'bundles' of High Commitment Work Practices. But will these results apply to small firms that may not have an HR Department, or even an HR manager? This is the key question that the current paper attempts to answer.

The Literature on Human Resource Management in Small Firms

In relation to large firms, Pfeffer's (1994) conclusion that there is an identifiable set of people management policies that 'seem to characterize most if not all of the systems producing profits through people' (p. 64) is widely accepted in the HR literature. In particular, there is a consensus that the following categories capture characteristics of HR policies and practices in most large firms: the amount of effort and resources used to recruit the right people, the use of internal career ladders, formal training systems, formal results-orientated appraisals, performance-based compensation, employment security, employee voice and consultation, and broadly defined jobs and decentralisation.

No such consensus exists in relation to HR practices in small firms (see for example Duberley and Walley, 1995; Hayton, 2003; Heneman, Tansky and Camp, 2000). Given this lack of consensus about what HR looks like in small firms, pre-survey interviews with eight companies in the UK and US were conducted with the aim of gaining an insight into what types of HR practices were likely to be found in the small firms in our selected industries, and what terminology small firms were familiar with in relation to HR practices. We started with the following checklist: Selection, Appraisal, Reward, Development, and Strategy. Given the relatively horizontal management structures found in small firms, we also include the variable 'employee voice and participation' as part of our HR check-list.

Although the above check-list includes most of Pfeffer's widely accepted categories for large firms, given our previous work in this area we wished to examine whether Pfeffer's remaining categories applied to small firms: in particular, employment security, the use of internal career ladders, broadly defined jobs, and decentralization. The majority of CEOs interviewed emphasized that given the risk and uncertainty inherent in owning and working in a small company, *employment security* was not a realistic objective. One interviewee stated that: 'To be a successful entrepreneur you must have the mentality that in any given month you will need to shut your doors, lay-off all of your employees (including family members) and file for bankruptcy – there is no security in running your own business'. The interviewees emphasized that the companies were all quite horizontal, so prospects for promotion (*internal career ladders*) were limited, and that all employees were expected to be functionally flexible and thus jobs were *broadly defined*. In terms of *decentralization*, again for various reasons this did not seem applicable to the small firms interviewed. Some interviewees said that employees were consulted frequently, especially about any major changes or initiatives and this was viewed as 'decentralized' decision making; in other cases it was felt that management needed to 'get on and make the key decisions' and thus decentralization of decision making was simply not appropriate.

Thus, perhaps not surprisingly given the nature of small firms, it was found that none of the additional Pfeffer categories were applicable to the pre-survey firms. These categories were therefore not used in the final survey. In addition, while the pre-survey companies had quite sophisticated recruitment practices in place and used multiple techniques, none used psychological tests - common in large firms - and thus this question was not included in the final survey.

As argued by MacDuffie: 'Firms generally organize human resource practices that are consistent with their culture and business strategy… It is this combination of practices in a bundle, rather than individual practices, that shape the pattern of interaction between and among managers and employees… Thus, research that focuses on the impact of individual HR practices on performance may produce misleading results, with a single practice capturing the effect of the entire HR system' (MacDuffie, 1995: 199-200).

These bundles of HR practices are commonly referred to as high-involvement systems, innovative systems, high performance work systems, or high commitment work systems (Ichniowski *et al*., 1997). The most common human resource policies used to create bundles are: staffing, compensation, employment security, flexible job assignments, self-directed teams (or at least the use of teams), training, and communication – in particular, employee voice and participation initiatives. The different human resource practices may then be combined to form an index that captures the extent to which firms use the HR practices – the index is a measure of bundle intensity/usage (Hoque, 1999).

Hypotheses Tested

Based on previous research on the characteristics of HR practices in small firms (Cassell *et al.*, Hayton, 2003) we hypothesize the following relationship between firm characteristics and HR practices:

> *Hypothesis 1: There will be a positive relationship between the use of HR practices and: (a) the size (employment level) of the company; (b) the age of the company; (c) whether the company is operating in a high technology industry; (d) whether the company has an affiliation with a larger firm (through a supplier, customer network or franchise); (e) whether the company is operating in a growing market; (f) a trade union presence; (g) having ISO recognition; and (h) having received external assistance.*

Next, our 'best practice' hypothesis posits that there will be a positive relationship between the use of HR practices and performance (Becker and Huselid, 1998; Pfeffer, 1998; Delery and Doty, 1996). Our previous research - which used a modified version of Delery and Doty's and Pfeffer's 'best practice' policies - found support for this hypothesis in large firms:

> *Hypothesis 2: There will be a positive relationship between firm performance and (a) the amount of effort and resources used to recruit and select the right people; (b) the use of performance appraisals; (c) performance-based compensation; (d) formal training; (e) employee voice and participation; and (f) having an HR strategy.*

Our third hypothesis is concerned with internal consistency or 'bundling', for which previous research, including our own, has found support (Delery and Doty, 1996; Ichniowski *et al.*, 1997; Pfeffer, 1998):

> *Hypothesis 3: There will be a positive relationship between firm performance and an internally consistent grouping of HR practices (i.e., 'bundles';) and the size of this positive correlation will be most significant for 'HRM System 3' (see below).*

Sample, variables and methodology

The Sample

The data used in the analysis were derived from a stratified sample of firms from the Dun and Bradstreet databases in the UK and US respectively. Two dimensions were used to stratify the sample: organizational size and the primary sector of business activity. In relation to size, the selection criterion was that the firms employ between 10 and 100 employees. Nine sectors were identified - five in manufacturing and four in services - using the 1992 UK and US Standard Industrial Classification (SIC) codes. The matched SIC codes are as follows: **Manufacturing – medical:** 2833 – Medicinal Chemicals and Botanical Products; 2834 – Pharmaceutical Preparations; 3827 – Optimal Instruments and Lenses; 3841 – Surgical and Medical Instruments and Apparatus; 3644 – Radiology/Electrical Medical Equipment; **Services – medical & health related:** 8071 – Medical and Scientific Laboratories; 8072 – Dental Laboratories; 8051 – Skilled Nursing Facilities; **Services – other:** 5411 – Grocery Stores/Super Markets.

Dun & Bradstreet supplied a total of 1281 firms with the above characteristics in the UK and 1470 in the US. The medical and health-related SIC codes were selected because these represent industries of significant growth - both current and expected - in the UK and US. Grocery stores were selected to serve as a comparative industry. This is a large industry with high expected rates of growth, although not known for high skill or training levels.[3]

The data collected are cross-sectional. It is important to stress therefore that what is being investigated is the possible correlation between variables such as the use of various work practices, on the one hand, and the firm's performance on the other. We are not arguing that such correlations represent simple one-way causal processes. Indeed, we would expect any correlation we found to be the result of complex causal relationships between variables.

Given that the firms employed less than 100 people, it was unlikely that the majority of firms would have an HR Department or HR Director/Specialists; thus letters and faxes were sent to the company's CEO/Owner/Director – the most senior person that could be identified from the Dun & Bradstreet database. Given low responses to postal surveys and the well documented low response rates of SMEs to research surveys (Dennis, 2003), it was decided to conduct a telephone survey of the selected companies. The following protocol was followed:

- The main contact person identified from the Dunn and Bradstreet databases was mailed or faxed a one-page briefing on the objectives of the survey and the expected length of the interview (around 40 minutes). Confidentiality of survey participants was emphasized.

- After the fax or letter was sent, the person was contacted to see if they would agree to the telephone interview and if agreeable, a date and time was set. They were then faxed a 'glossary' of HR terminology and definitions of the financial variables that would be asked about. It was found, however, that this fax seemed to have a negative effect on people actually completing the telephone survey. This was a particular problem in the US. It is likely that small business owners did not wish to reveal financial information, despite the assurances of confidentiality. Once this problem was identified, the financial variable information on the second fax was dropped.

Interviews were conducted by telephone with the company's CEO/Owner/Director in 87% of cases in the UK and 83% of cases in the US. The remaining interviews were carried out with the Director of Human Resources/Personnel/Employee Relations. Many of the interviewees appeared extremely interested in the research and the survey questions. Thus, in approximately 50% of the interviews, quite lengthy discussions – almost 'mini case studies' - took place between the interviewee and the research team members conducting the interviews. Summaries of these discussions, comments, and feedback were entered into the final databases used in the analysis and help to provide a better understanding of the processes and rationales for the quantitative data used in the analysis. Some of this informal feedback is reported below.

In total 1173 companies were asked (holding companies and companies where it was clear that they had been categorized in the wrong SIC were excluded) – via mail or fax - to participate in the survey in the UK. Of these, 1051 declined, 31 agreed but subsequently failed to complete the interview, and 91 interviews were completed successfully. In the US, 1221 companies were asked to participate, 1066 declined, 56 agreed but subsequently failed to complete the interview, and 98 interviews were completed successfully. Where possible, potential interviewees were asked why they declined to participate: the main reason was 'time constraints'. Many of the business owners commented that they worked long hours, often 7 day weeks - and even though many stated that the study seemed interesting and that they *did* need to learn more about how to 'manage their employee more effectively' - they said that they simply could not 'spare the time'. The other main reason for not participating in the study was 'confidentiality concerns', particularly for the US firms.

The Variables

Performance Variables. Three questions were asked concerning performance outcomes, with respondents asked to rate each on a scale of one (much worse) to five (much better):

- How well does labour productivity at your company compare with other companies in the same industry?

- How does financial performance at your company compare with other companies in the same industry over the past financial year?

- How does the ability to retain existing customers at your company compare with other companies in the same industry?

While companies were asked for financial performance data, the majority did not answer these questions. Companies were asked to supply information on the following variables: net sales, cost of goods sold, after tax earnings, and return on capital employed. The percentage response rates in the UK and US in relation to each of these variables were respectively: 35% and 30% for net sales; 20% and 17% for cost of goods sold; 16% and 10% for after tax earning; and 11% and 8% for return on capital employed. UK companies were slightly more likely to supply financial data compared to US companies, perhaps reflecting the fact that some companies in the sample would be required to file reports with Companies House and thus data for these companies would be publicly available.[4] Where the data were available (for nine companies) we purchased the data to check for consistency between what was reported in the survey and what was submitted to Companies House. The most consistent comparisons could be made on profits: in all cases, the accuracy between what was reported on the telephone survey ('self report') and the data lodged with Companies House ('objective data') was high. This finding is consistent with our previous research that demonstrated a relatively high degree of consistency between 'subjective' performance measures and their 'objective' counterparts (Wall *et al.*, 2004).

Control Variables. The following standard control variables were included in the analysis:

- company size, with dummies for establishments with 10-25, 26-50, 51-75, and 76-100 employees (the omitted category is establishments with 10-25 employees);

- the age of the company;

- sector dummies for 'high technology' and 'low technology'. Companies in the 2833, 2834, 3827, 3841, 3644, 8071 and 8072 SIC codes were placed in the former category and companies in the 8051 and 5411 SIC codes in the latter;

- whether the company has a large firm affiliation (34% and 41% for UK and US companies respectively);

- the market environment (1 = declining; 2 = turbulent; 3 = stable; 4 = growing; and 5 = growing rapidly);

- trade union presence (50% and 14% for UK and US companies respectively);

- ISO Recognition (38% and 55%, UK and US companies respectively); and

- whether the company received External Assistance from organizations such as Business Links/Small Business Advisory Service, Small firms loan guarantee scheme, or the European Union in the UK; or the Small Business Administration, Chambers of Commerce, or Business Administration Centres in the US (38% and 19% of UK and US companies respectively had received such assistance).

HRM Practices and Systems. The HRM practices used to test hypotheses 1 and 2 cover the areas of recruitment and selection, training and development, performance appraisal, performance based compensation, employee voice and consultation, and strategic HR. To test hypothesis 3, the individual practices are combined to create HR Systems 1-3 as described below (the omitted system is HR System 1).[5]

Methodology

We grouped practices into three 'HRM systems', which map out a hierarchy from low to high HR usage. This latter category is broadly consistent with Ichniowski *et al.*'s (1997) 'most innovative' category, or in the context of small firms, close to representing a High Performance Work System (HPWS).[6]

- 'HRM System 1' firms are characterized by low rates of formal recruitment/selection practices (0-1 formal recruitment methods used; no written employment contract; no written job description); appraisals for less than 50% of employees; no performance related pay (including no profit sharing/share options, and no team based or training-education linked awards); no formal training over the past year; no initiatives to encourage employee voice or participations; and no HR Strategy. 15% of firms were in System 1 (14% of UK firms and 16% of US firms).

- 'HRM System 2' firms use practices from at least two of the following five HRM policy areas: formal recruitment and selection; performance appraisals for the majority of employees; innovative pay; formal training for the majority of employees; and employee voice and consultation initiatives and/or an HR Strategy. 70% of firms were in System 2 (72% percent of UK firms and 68% of US firms); and

- 'HRM System 3' firms use *at least one* component from *each* of the five areas: 15% of firms were in System 3 (14% of UK firms and 16% of US firms).[7]

Results

Use of HR Practices

Table I shows that the companies in our sample used quite sophisticated HR practices. For most practices, there was broad consistency in usage between the UK and US firms. Where significant international differences emerge, these relate to the regulatory environment.

The majority of companies (90%) used at least one type of formal recruitment technique (89% of UK firms and 91% of US firms). Amongst these companies, the vast majority (73%) used more than one formal technique.

77% of companies had written employment contracts: 93% of UK companies, but only 62% of US companies, reflecting different labor law requirements between the two countries. In the UK, if an employee is taken on for more than one month, by law they are entitled to a written contract within two months of initial employment. Of the six UK companies that did not have employment contracts in place, four were not aware that it was required by law and two reported that they 'were working on them, but had not yet had time to complete them'. In the US, there is no legal requirement for employees to be issued an employment contract. The main reasons why US companies did not use employment contracts was because it was felt the contract would 'make employees feel too secure', 'make it more difficult to fire employees', or that 'it was not appropriate or relevant for a small firm'. Approximately 57% of companies had written job descriptions in place (55% of UK companies and 59% of US companies). Of employers that had job descriptions in place it was generally viewed as a way of 'letting employee know what is expected of them', 'letting them know where they stand in the company', 'useful if any disciplinary or poor performance issues arose', and for conducting performance appraisals.

In relation to performance appraisals, 66% of companies conducted them, at least annually (60% of UK companies and 72% of US companies). In general, employers who used performance appraisals reported that they found them 'very valuable' for giving employees feedback on performance. Many interviewees commented that given the informal environment in small companies, they often found it difficult to criticize their employees, and that the performance appraisal allowed them to deliver negative feedback in a formal context and with structure. Appraisals were also reported to be helpful in relation to making decisions about performance related incentives, identifying the types of training and education courses that employees wished to pursue, and in identifying skill gaps. Interestingly, the majority of CEOs/Company Directors/Managers (85% of UK companies and 93% of US companies) that had performance appraisals in place in their company also reported that they had their own performance appraised by other senior managers, and in about 40% in both the UK and US in this category, the interviewees also had their performance appraised by non-managerial employees at their company. These interviewees felt it was important that they 'knew what their colleagues and employees thought of them', and they

wanted feedback on 'their management abilities' (or lack of them, as several joked), or on 'the quality of the work they were delivering to customers'.

Some type of performance-based compensation was used by 55% of companies (52% of UK companies and 59% of US). Individually based performance pay was more likely to be used in the US companies (60%) compared to the UK companies (52%), although many of the UK companies said that it was something that they were 'planning to introduce shortly'. Team based incentives were used in about a quarter of companies. The US companies were more likely to have used this incentive (28%) compared to UK companies (21%).

55% of companies reported that the majority of managerial and non-managerial employees had received formal training over the past year (61% of UK companies and 49% of US companies).

The majority (93%) of companies had a formal induction programme for new employees (92% of UK companies and 94% of US companies); and 79% had conducted informal training for the majority of their employees (80% of UK companies and 78% of US companies) over the previous year. When these results were discussed in more detail with the interviewees, it was found that a lot of the informal training covered basic things such as health and safety, working methods, product/service knowledge, computing and IT, and answering and transferring telephones calls correctly. There also seemed to be considerable overlap in what was covered in the induction programmes and what was regarded as informal training by respondents. Given these factors, only *formal* training was included in the correlation and econometric analyses presented below.

Finally, in terms of training and development, it was found that 9% of sample companies had Investors in People (IiP) recognition. This UK government initiative - developed in the 1990s - is a national standard that affirms companies have appropriate training and development policies and procedures in place to achieve business goals.

In relation to employee voice and consultation, the most common practice used in both the US and UK were employee surveys (79% of companies surveyed their employees). The next most common method of involvement was employee representation at Board/Management meetings (43% of companies: 46% of UK companies and 41% of US); 29% of companies consulted existing employees about new hires (33% of UK companies and 25% of US); 21% of companies had Joint Consultative Committees (20% of UK companies and 22% of US); and where financial targets were set in companies (59% of UK companies and 68% of US), employees were informed about whether targets were achieved or not in 18% of these companies (21% of UK companies and 15% of US).

We found evidence of 'strategic' HR practices, with 51% of companies having a training and development plan in place (53% of UK companies - almost all of the skilled nursing facilities had a formal plan in place, due to the regulatory environment in which they operate - and 48% of US companies); 37% of companies having a recruitment plan for the next year in place (31% of UK companies and 44% of US companies - in this case, it was the nursing homes in the US that were most likely to have recruitment plans in place, reflecting the shortage of skilled and licensed nurses and the high labour turnover at these homes); and 36% of companies analyzing the recruitment methods and processes at least annually (33% of UK companies and 39% of US) - companies were more likely to do this when they faced labour shortages and/or had high labour turnover.

Testing Hypothesis on Firm Characteristics and the Use of HR

The correlations of the control and HR variables (available from the authors on request) provide strong support for Hypothesis 1, relating the use of HR practices to characteristics of the company. Almost all the variables displayed the expected signs. In particular, we find significantly positive correlations between firm size, age, operating in high technology industry, having a large firm affiliation, operating in a growing market, having ISO certification, and having received external assistance on the one hand, and having HR practices and a strategy in place, on the other hand.

In relation to trade union presence, we find significantly positive correlations with firm size and age in the UK and positive but not statistically significant coefficients for US firms; and significantly negative correlations in relation to industry in both samples. This indicates that trade unions were more likely to be present in the 'low technology' companies – in particular, in grocery stores and the nursing homes. Indeed, the telephone interviews revealed that trade union recruiters were particularly active in the grocery store sector in the US.

In relation to the receipt of external assistance, significantly negative correlations are found in relation to company size and age which is what is to be expected – small, young start-up companies are more likely to seek external assistance, than larger, more established companies. Significantly positive correlations are also found in relation to industry and external assistance: companies in the 'high technology' industries were more likely to have received external assistance, which is consistent with UK and US small firm development strategies.

Significant positive correlations between the HR practices themselves are found, suggesting the practices are not independent of one another. The positive relationship between having an HR strategy in place is particularly highly correlated with firm size, age and formal training.

Testing Hypotheses on HR and Firm Performance

We found firm size significantly positively correlated with labor productivity and financial performance. Interestingly, the largest size band (76-100 employees) is significantly negatively correlated with customer retention. After finding this result, we went back to the informal feedback that was given by the interviewees during the telephone surveys. Many respondents employing between 76-100 mentioned difficulties they were experiencing with 'managing growth', 'managing a rapidly growing work force', 'quality control problems', and a 'decline in customer service'. Several interviewees asked us for advice and guidance on these issues. We plan to re-survey these companies over the coming year to examine if, and how, they have been able to deal with the loss of customers and, indeed, if they are still in business.

The age of the company was positively and significantly correlated with financial performance and customer retention (this may be picking up 'survivor factor' – companies that were able to stay in business manage to retain customers). While the coefficient on age and labour productivity is positive, it is rarely significant. This may reflect the well known fact that in start-ups, extra work is required of all employees, generating high productivity.

Having an affiliation with a large firm and ISO recognition were both significantly positively correlated with all the performance measures. The same was found in relation to having received external assistance, with the exception of customer retention in UK firms, where the coefficient was positive but not significant.

Trade union presence was significantly positively correlated with labor productivity (at the 10% and 5% levels for hypothesis 2 and 3 respectively) and with customer retention (at the 5% level in both models), and positively but not significantly correlated to financial performance in the UK sample. In the US, the coefficient signs on trade union presence and performance were all positive but not significant. Given the low rate of trade union presence found amongst the US firms surveyed (14%) it was unlikely that any significance would be found in relation to this variable, one way or the other. This same pattern of positive but not significant correlations between trade union presence and performance is also found for the combined sample.

In relation to market conditions, interesting patterns are found. While operating in a growing market is significantly positively correlated with labor productivity and particularly financial performance (all coefficients in all of the models for the financial performance variable were significant at the 1% level), the coefficient sign is significantly negative in all of the models in relation to customer retention, reflecting the challenges of managing rapid growth in SMEs.

In relation to the HR practices and performance (hypothesis 2) positive correlations are found for all variables and models, although significance levels vary. For the UK, labor productivity is significantly correlated with all HR variables other than HR strategy; and financial performance is significantly correlated with all HR variables other than employee voice and participation. However, employee voice *is* positively correlated (and significant at the 1% level) with customer retention (the only HR variable to be significant at the 1% level in relation to customer retention). This could reflect the fact that in firms where employees are encouraged to use their voice, they are more likely to approach managers and owners about customer relations.

For the US sample, labor productivity is significantly positively correlated with all the HR practices other than employee voice and participation (where the correlation coefficient is positive but not at the level of statistical significance); and financial performance is significantly positively correlated with all the HR practices other than

‘employee voice and participation’ and ‘formal training’, where in both cases the correlation coefficient is positive but not at the level of statistical significance. All HR variables were significantly positively correlated with customer retention and in particular with recruitment and selection, formal training, and employee voice and participation (all significant at the 1% level).

In relation to the overall sample, labor productivity is significantly positively correlated with all six HR practices, as is customer retention. The third of the ‘performance’ measures is positively correlated with all six, but significantly so in only five of the cases, the coefficient on ‘employee voice and consultation’ not being statistically significant.

Significant and consistent support is thus found for Hypothesis 3: that there will be a positive and significant relationship associated with an internally consistent grouping of HR practices and that the size of this expected positive correlation will be most significant for HRM System 3. HR system 2 was indeed positively and significantly correlated at the 5% level for all performance variables in all samples. But HR system 3 was significantly positively correlated at the 5% level with financial performance, and with labor productivity and customer retention at the 1% level in all of the samples.

Conclusions and Future Research

The research reported here builds upon and contributes to the significant body of literature on the links between HR practices and performance. For public policy the lessons are reasonably clear and relatively uncontroversial: investing in education, training and ‘lifelong learning’, and encouraging and facilitating other ‘progressive’ HR practices will tend to enhance organizational outcomes and corporate performance and hence should be encouraged.

The implications for corporate policy are less clear-cut. The ‘public good’ aspects of training mean that if employees leave the firm, the benefits will no longer accrue to the firm that provided the training. This point has been nicely illustrated by Wall and West (2005) in their description of an imaginary court case in which a company has invested heavily in HR practices on the advice of consultants drawing on the HR-performance literature, and is now suing the consultant for lost profits, when the promised performance failed to materialize. Wall and West (2005) conclude that such a company could rightfully feel aggrieved, as perhaps this literature has ‘oversold’ the HR-performance link.

Wall and West (2005) survey a number of the published HR-performance papers, pointing to the failure of most of them to survey a sufficiently large number of companies, interview more than one person from each company, repeat the surveys and interviews over time so as to construct a time series data set, and various other factors which, ideally, would be present in any such research study of HR practices and corporate performance. Certainly, when Guest *et al.* (2003) reported positive HR-performance findings and then repeated the tests using time series data and including previous performance as an explanatory variable for current performance, this displaced the previously significant correlation between HR practices and performance. The previous performance may itself, of course, have been caused, or at least have benefited from, HR practices, but this does at least illustrate the relevance of collecting time series data for looking at HR performance issues.

There are other caveats that can be made drawing upon the existing literature to prevent too simplistic conclusions from being drawn for corporate policy. For example, Guest *et al.* (2000) found that it was not simply the *adoption* of HR practices that mattered, but how *effectively* these were actually implemented and applied. This might be regarded as rather tautological: introduce HR practices effectively and they will feed through into improved corporate performance; introduce them ineffectively and they won’t. But such caveats are indeed necessary when drawing out the policy implications from research; the literature cannot be interpreted as implying that the simple adoption of practices will deliver improved performance – the practices do indeed need to be applied in an effective manner. What does this mean in practice? A key aspect is the degree of trust that employees have in the practice, and in particular whether the managers are viewed as being genuinely committed to maintaining and developing the practices, rather than either having introduced them with a ‘tick box’ mentality, or such policies being regarded as a fad or the brainchild of one particular manager, so that there is little confidence in how durable the practices will prove over time.

The issue of employee share ownership is interesting in this regard, as Government support for the practice on both sides of the Atlantic is based largely on the belief that such schemes will provide individual financial incentives, motivating employees to contribute discretionary effort in order to benefit from the increased dividend payout and/or the rise in share price that will follow from improved company performance. Surveying employers and employees within

companies that promoted such schemes we found that in addition to any such individual financial incentive effect, there was a motivational effect from such policies being interpreted by employees as evidence that the company was genuine in their stated desire to ensure that all those within the company should share in improved performance, and with employees feeling they had a stake in the success of the organization (Michie & Oughton, 2003). Companies that had employee share ownership plans were more likely to have also introduced other 'progressive' HR practices of the sort generally associated with 'High Commitment Work Systems'. And the presence of the employee share ownership scheme was interpreted as evidence that managers were indeed *genuine* in their commitment to such policies and practices.

Thus, the categorization of 'effective' and 'ineffective' application of HR practices can be more than a tautological classification determined by whether or not the organizational performance had in fact improved: there is advice that can be given on how to introduce such practices effectively which if followed will enhance our expectation that the introduction of those practices will indeed be associated with subsequently improved performance. Indeed, the whole 'HR bundles' literature addresses just this question, of whether the link between HR practices and corporate performance may vary depending, in this case, on the particular combination of such practices.

In terms of implications for future research, the amount of detail that is required from each organization in order to take account of all these factors and the particular combination in which the practices are applied, the degree of trust employees have in the commitment that managers actually have in the policies and practices in question, how these policies relate to the company's corporate strategy, and so on – and the need to gather this information from more than one individual within the company, and to repeat the exercise over time in order to gather time series data, implies that the amount of research required on each company is closer to what might be regarded as case study work rather than just questionnaire-based data gathering. And certainly case study work is necessary if one is to uncover the motivations that underlie the various decisions that are taken over time, and the reactions to those decisions within the organization. But such research has serious resource implications.

And one could go further. If corporate policy advice is to be given, then the legal, institutional and cultural contexts all need to be taken into account. If the company is operating in more than one country, then the research results and concomitant policy advice will likely vary from country to country in complex ways.

So in considering the implications of the HR-performance literature for corporate policy – looked at from the viewpoint of an individual manager within a specific company – the research needs to be as focused as possible so that the policy implications will be appropriate. Thus, in previous research we found a positive link between the adoption of HR practices and corporate performance, but rather than conclude that the implication for corporate policy was that such practices be adopted, we repeated the analysis depending on the corporate strategy being pursued by the firm and found that for those firms pursuing a cost-cutting strategy (rather than an innovating or quality-enhancing strategy) the statistical significance of the correlation disappeared; thus for those firms the advice should be, if they are to maintain their current strategy, then their performance would *not* be enhanced by the adoption of such practices (Michie & Sheehan, 2005).

The present paper represents a contribution to this research agenda, of testing the HR-performance link according to firm characteristics, in this case according to the size of firms. It might well be thought by managers within small firms that the HR-performance link applies particularly to large firms able to invest in an HR Department and in the range of practices that the literature suggests need to be pursued in combination. The introduction of such practices for a small firm might either not bring about the improved productivity that studies that have relied on datasets including large firms have found, or else any productivity gain that is achieved might boost the firm's finances by less than the overall cost of introducing such practices, leaving the firm worse off financially. We therefore tested three performance measures – productivity, customer retention and financial performance – against not just the use of HR practices but also against the use of bundles of HR practices.

Our results demonstrated significantly positive correlations between HR practices on the one hand, and company performance on the other. And investment in a bundle of practices was particularly strongly correlated with performance. Thus, the generally positive HR-performance results that have emerged from the literature in general are also found for our sample of small firms. The idea that the policy recommendation to invest in HR practices, in particular in appropriate bundles of practices, might not be applicable to the small firm sector – just as we found it to be not applicable to firms pursuing cost-cutting strategies – is rejected. We found a statistically significant positive correlation between HR

practices – in particular when introduced as a High Commitment Work System bundle – and performance for small firms.

But with cash-flow at such a premium for small firms, can they afford such practices, however desirable the performance outcomes such as improved productivity might be? In addition to productivity – which is of course crucial and was found to be positively correlated with HR practices – we therefore tested for two additional performance measures: namely, customer retention and financial performance.

Customer retention we took to be particularly important for growing small firms, without which revenues would be hit, exacerbating the cash flow difficulties that small firms often experience, or else leading to increased expenses in trying to replace lost customers, with a similarly detrimental impact on cash flow. If the firm performs badly on customer retention then this may prove far more serious than just a cash flow problem, with the firm finding that in growing, they have over-reached themselves, leading to company failure. These concerns were echoed by several of the companies in the course of our interviews. We therefore took this performance measure to be key, not only in determining the sustainability of company growth, but also in considering whether the investment in HR practices could be afforded. The findings were uniformly positive between HR practices – particularly when adopted in bundles – and this customer retention measure.

There remains, though, the 'bottom line' question: Are the measures that are found to enhance productivity and customer retention affordable? Is the financial payback from higher productivity and enhanced customer retention greater or less than the financial outlay required to deliver these outcomes? To answer these questions, we tested for the financial outcome as a third performance measure. As expected, given the cost of these HR measures, the correlation between the presence of the HR measures and financial performance was weaker than the correlation between the presence of these HR measures and the other performance measures of productivity and customer retention. But the correlation with financial performance, though weaker, was nevertheless still positive and statistically significant. For these small firms, the HR practices do appear to pay.

Reference was made above to the need to be country-specific when considering the implications for corporate policy from such research. Our research, involving firms in both the UK and the US, did indeed illustrate various ways in which the legal, institutional and cultural frameworks impacted upon the use of HR practices and the likely relation of these to corporate performance. We therefore repeated all our econometric tests on each country sample separately, as well as on the combined sample (available from the authors on request). We found, as reported above, that despite the legal, institutional and cultural differences referred to above, the results across the two samples were remarkably consistent. All our results and policy conclusions apply equally to firms in the UK and the US.

Table I. HR Practices Used in UK and US Small Firms

HR Practices	Mean UK	Mean US	Mean All Firms
A. Recruitment and Selection			
a. Use of at least one of the following selection methods: formal application form; formal interview; work sample; test of job skills; assessment of job skills	0.889	0.913	0.901
b. Written employment contract	0.934	0.615	0.768
c. Written job description	0.553	0.592	0.572
B. Performance Appraisal			
Formal Appraisal of majority (>50%) of managerial and non-managerial employees on a regular basis, or at least annually	0.605	0.721	0.665
C. Performance Based Compensation			
a. Individually based performance related pay	0.521	0.605	0.563
b. Profit sharing (or some other type of company-based reward system)	0.100	0.152	0.126
c. Employee stock options	0.022	0.053	0.037
d. Team-based performance	0.208	0.285	0.249
e. Training-education achievement linked bonus	0.199	0.152	0.175
D. Training and Development			
a. Formal induction programme for new employees	0.912	0.936	0.926
b. The majority (> 50%) of managerial and non-managerial employees received formal (NVQ and/or 'off-the-job') training in the past 12 months	0.612	0.489	0.550
c. The majority (> 50%) of managerial and non-managerial employees received informal ('on-the-job') training in the past 12 months	0.802	0.785	0.794
d. Investor in People (IIP) Status	0.091	N/A	N/A
E. Employee Voice and Participation			
a. Employee Representation at Board/Senior Management Meetings	0.462	0.412	0.434
a. b. Joint Consultative Committees (JCCs)	0.203	0.221	0.211
b. c. Employees are surveyed on a regular basis, at least annually	0.788	0.792	0.794
d. Employees consulted about new hires	0.332	0.255	0.291
e. Where financial targets are set (59% of UK firms; 68% of US firms), employees are informed about the status of these targets (i.e., whether targets were exceeded, met, or not met)	0.205	0.153	0.180
F. HR Strategy			
a. HR Department or Specialist	0.130	0.170	0.153
b. Analysis of Recruitment Methods at least annually	0.333	0.388	0.360
c. Recruitment Plan for next year	0.312	0.436	0.374
d. Training and development Plan for next year	0.533	0.484	0.510

Table II. Results for Hypotheses 2(H2) and 3(H3): All Firms (US & UK combined)

Variables	Labour Productivity		Financial Performance		Customer Retention	
	H2	H3	H2	H3	H2	H3
25-50 employees	0.111(0.229)	0.114 (0.250)	0.196 (0.282)	0.190 (0.278)	0.302 (0.104)***	0.298 (0.098)***
51-75 employees	0.325 (0.149)*	0.317 (0.141)**	0.221 (0.109)*	0.214 (0.109)*	0.217 (0.112)*	0.213 (0.107)*
76–100 employees	0.401 (0.154)**	0.388 (0.164)**	0.323 (0.111)***	0.319 (0.105)***	-0.170 (0.054)***	-0.162 (0.065)**
Age	0.152 (0.109)	0.146 (0.066)*	0.272 (0.093)***	0.267 (0.088)***	0.223 (0.091)* *	0.218 (0.098)**
Industry	0.651 (0.274)**	0.647 (0.268)**	0.467 (0.183)**	0.465 (0.184)**	0.066 (0.049)	0.060 (0.047)
Large Firm Association	0.219 (0.086)**	0.216 (0.088)**	0.388 (0.127)***	0.378 (0.120)***	0.406 (0.159)**	0.397 (0.163)**
Market Conditions	0.246 (0.110)**	0.232 (0.100)**	0.647 (0.223)***	0.642 (0.216)***	-0.302(0.113)**	-0.310 (0.165)*
Trade Union Presence	0.079 (0.065)	0.065 (0.045)	0.045 (0.043)	0.040 (0.039)	0.067 (0.060)	0.060 (0.057)
ISO Recognition	0.268 (0.101)**	0.264 (0.094)***	1.005 (0.288)***	0.991 (0.275)***	0.568 (0.196)***	0.562 (0.186)***
External Assistance	0.289 (0.112)**	0.291 (0.123)**	0.221 (0.097)**	0.225 (0.097)**	0.176 (0.072)**	0.166 (0.066)**
HR practices:						
Recruitment and Selection	0.094 (0.039)**		0.077(0.041)*		0.109 (0.045)**	
Performance Appraisal	0.076 (0.038)*		0.068 (0.035)*		0.093 (0.039)**	
Performance-related pay	0.104 (0.037)***		0.087 (0.039)**		0.092 (0.046)*	
Formal Training & Development	0.113 (0.050)**		0.110 (0.042)**		0.138 (0.059)**	
Employee Voice/ Participation	0.065 (0.033)*		0.032 (0.035)		0.211 (0.061)***	
HR Strategy	0.054 (0.029)*		0.066 (0.028)**		0.048 (0.020)**	
HR System 2		0.295 (0.134)**		0.306 (0.109)**	-	0.386 (0.161)**
HR System 3		0.386 (0.117)***		0.291 (0.151)*	-	0.485 (0.143)***
n	186	177	181	172	187	178
Pseudo R^2	0.148	0.182	0.117	0.123	0.098	0.116

Notes: Ordered probit analysis; Coefficients given (standard errors in brackets).

***significant at 1%; ** significant at 5%; * significant at 10%.

Equivalent Tables reporting the results for the US and UK firms separately are available from the authors on request.

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Notes

[1] Correspondence to: Professor Jonathan Michie, Director, Birmingham Business School, University of Birmingham, B15 2TT, UK, Telephone: +44 121 414 3555, Fax: +44 121 414 7380, j.michie@bham.ac.uk

[2] This research was funded by the ESRC as part of their 'Human Resource Management and Performance in Small & Medium Sized Enterprises' project (Grant RES-000-22-1142). We would like to thank our researchers Linda Mapp and Alesha Aljeffri at the University of Birmingham and Doreen Wallace, Caroline Nardy, Jodi Roberts and the 'Research Team' at the University of Dallas. We would also like to acknowledge the support of Deans Lynch (deceased) and Whittington, and Professor John Watters, all of the University of Dallas.

[3] For details on the grocery store industry in the US and UK see: www.connexions.gov.uk/jobs4u/furtherdetails.cfm?id=605&parentID=594 (2004) and www.collegegrad.com/industries/trade03.shtml (2004).

[4] Companies defined as 'small' by Companies House and thus exempt from filing an annual report have to fulfil at least two of the following conditions: annual turnover £5.6 million or less; balance sheet total £2.8 million or less; number of employees 50 or fewer.

[5] The results for hypotheses 2 and 3 could be compared by testing whether by adding the Systems, the positive relationship between HR and performance increases, which we did in previous work (Michie and Sheehan, 2005). For this, hierarchal regression models need to be run, requiring continuous dependent variables, but the dependent variables in this study are categorical rather than continuous.

[6] Cluster analysis also supported the grouping of firms into these three systems. Five UK firms and four US firms did not fit into the systems and were therefore excluded from the estimations undertaken to test Hypothesis 3. These firms appeared to have an extremely *ad-hoc* approach to HR. The qualitative analysis of the interviews for these firms suggests that the owners/directors were influenced by seminars they had attended or articles they had read on various HR topics and attempted to implement a particular initiative – such as JCCs or writing an HR strategy (without having HR practices in place).

[7] Interestingly, very similar distributions between such systems were found in our previous work on large firms (50+ employees) in the UK (see Michie and Sheehan, 2003).