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The impact of HR practices, HR effectiveness and a ‘strong HR system’ on organisational outcomes: a stakeholder perspective

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This paper explores the general hypothesis that effectiveness of human resource (HR) practices will help to explain the well-documented association between human resource management and performance. This paper adopts a stakeholder perspective, hypothesising that the ratings of HR effectiveness of senior line managers will be more strongly associated with the outcomes than those of HR managers. Furthermore, building on Bowen and Ostroff’s concept of consensus as part of a ‘strong’ HR system, it is hypothesised that shared perceptions of (high) effectiveness will be associated with higher performance. This study is based on a sample of 237 matched pairs of senior line managers and HR managers, and measures a range of subjective and objective outcomes. The analysis confirms the association both between more HR practices and higher HR effectiveness and a range of performance outcomes. The associations are mostly stronger for HR effectiveness. There are low levels of agreement between HR and line managers about HR effectiveness and where agreement exists, it is not associated with superior outcomes. This study, therefore, confirms the importance of HR effectiveness, but fails to support any impact of consensus.

Keywords: HR effectiveness; organisational outcomes; stakeholder consensus

Reviews of the human resource (HR) – performance relationship (see, for example, Boselie, Dietz and Boon 2005; Combs, Ketchen, Hall and Liu 2006) confirm an association between more extensive use of HR practices and various indicators of organisational performance. However, these associations are often modest and, as both reviews note, they leave a number of issues unresolved. Central among these is a concern about the process whereby HR practices are linked to performance. In this context, two issues are regularly signalled yet remain relatively under-researched. These concern the effectiveness of HR practices and of their implementation, in addition to the mere presence of practices, and the role of employee attitudes and behaviour, as potential mediators of the HR – performance relationship. There is an increasing focus in research on the role of employee attitudes and behaviour in the link between human resource management (HRM) and performance, but the issue of the effectiveness, as opposed to the presence of practices, remains relatively neglected. In an attempt to remedy this neglect, we explore the impact on performance of HR practices that are judged to be more or less effective.

There are a number of potential stakeholders who are likely to have a view on the effectiveness of HR practices (Tsui 1987). These include HR specialists who are responsible for designing and administering the practices, line managers who have to implement them and especially senior line managers who not only have to implement

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them but also make judgements about future investment in HRM, and employees on the receiving end of HR practices. There is, therefore, a strong case for a stakeholder perspective in judging the effectiveness of HR practices. Recent research has increasingly sought information from employees about HR practices and their reactions to them (see, for example, Nishii, Lepak and Schneider 2008), but the views of senior managers, other than HR managers, have been largely neglected. In this paper, we therefore explore the perceptions of HR effectiveness among a group of senior line managers, a key stakeholder group, and compare them with the perceptions of HR managers.

Bowen and Ostroff (2004) have argued that the HRM – performance linkage – is likely to be greater where what they describe as a ‘strong’ HR system is in place. Core characteristics of their ‘strong’ system are high levels of distinctiveness, consistency and consensus. In cases where these are present, they argue that there will be an organisational climate that supports HR implementation. A core feature of consensus is ‘agreement among the principal HR decision makers’ (p. 212). Research is emerging on the impact of consensus among employees and between management and employees (see, for example, Liao, Toya, Lepak and Hong 2009), but there has been little research exploring the consensus among senior managers. We, therefore, need to explore the agreement among the principal HR decision makers referred to by Bowen and Ostroff. A further aim of this paper is, therefore, to test whether higher levels of agreement between HR managers and senior line managers about the effectiveness of HR practices are associated with more positive outcomes. This would be one way of beginning to assess the impact of consensus in determining the ‘strength’ of the HR system.

One of the concerns raised in the reviews of HRM and performance is that a wide range of indicators of performance are used. Models that explore the linkage between HRM and performance (Becker, Huselid, Pickus and Spratt 1997; Guest 1997; Appelbaum, Bailey, Berg and Kalleberg 2000) distinguish between proximal outcomes such as employee attitudes and behaviour, which might be reflected, *inter alia*, in labour turnover and absence levels, and distal outcomes such as sales and financial performance. It is argued that the impact of HRM should be greater on the proximal outcomes that can be more strongly linked to HR policy and practice. This paper explores this proposition by examining the impact of HR effectiveness on both proximal and distal outcomes.

In summary, the key research questions explored in this paper are: what is the impact of HR effectiveness on a range of proximal and distal outcomes; and in particular, is this impact greater if there is consensus on (high) effectiveness between senior line managers and HR managers, as proposed by Bowen and Ostroff (2004)?

Human resource effectiveness and performance

Guest and Peccei (1994) noted that HR effectiveness can be defined in different ways including the use of organisational performance as a proxy for HR effectiveness, a range of proximal quantitative, workforce-related measures such as labour retention and absence, the achievement of specific goals such as meeting employee development targets, or a political perspective, which emphasises stakeholder judgements of effectiveness. They follow Tsui (1987, 1990) in accepting that the stakeholder perspective is the most appropriate one because it allows for the interpretation of, and attribution for the various outcomes subsumed under the other three approaches.

From a different perspective, Khilji and Wang (2006) and Wright and Nishii (2006) have emphasised the importance of the effectiveness of HR implementation, distinguishing between intended and implemented HR practices. Khilji and Wang found

a gap between these which they attributed to the poor quality and communication of the intended HR practices, to the lack of support for implementation from senior line managers, reflecting a 'weak' HR system, and to the lack of competence and reluctance to implement them among local line managers. They suggested that the key factor affecting HR implementation is likely to be senior managers' views on the role and effectiveness of HR practices.

Only a few studies have examined the association between HR effectiveness and performance. Huselid, Jackson and Schuler (1997) explored the effectiveness of technical HR, which they viewed as the traditional approach, and strategic HR, which they considered to be more developmental and commitment oriented. They found a relationship between effectiveness in strategic HR and business performance, but no association between technical HR effectiveness and business outcomes.

Richard and Johnson (2001) found an association between HR managers' satisfaction with the effectiveness of HR practices and lower labour turnover. When they interacted effectiveness with capital intensity, they additionally found an association with return on equity and a more tentative association with productivity. Using the same data set, Richard and Johnson (2004) found no association between high performance work practices and subjective performance, but they did find an association between effectiveness of these practices and performance. When they interacted HR practices and effectiveness, there was a positive association with both performance and innovation. This second study reported by Richard and Johnson is one of the very few that looks at both HR practices and HR effectiveness; there are limitations to this study because of its small sample, the use of a single respondent and the nature of both the independent and the dependent measures. However, it supports the need to take account of the effectiveness of the HR practices in seeking to understand their impact on outcomes.

This brief overview highlights three components of HR effectiveness. First, the HR practices must be present; second, they must be judged effective and third, they must be effectively implemented. It can be argued that the presence of effective practices is an essential prerequisite to any possibility of effective implementation and, therefore, constitutes the key step in the sequence. To take a common example, studies often ask about the presence of a formal appraisal system for all staff. This does not address the possibility that it is a very poor system and therefore unlikely to be effectively implemented. Indeed, on this basis, we can argue that although the presence of a HR practice is a necessary first step, the effectiveness of the practice is likely to determine its impact on relevant outcomes.

Hypothesis 1: The effectiveness of practices will have a greater impact on outcomes than the presence of (more) practices.

The role of different stakeholders

A stakeholder perspective acknowledges the potential importance of a range of views about the effectiveness of HR practices (see, for example, Beer, Spector, Lawrence, Mills and Walton 1985; Tsui 1987) and a number of authors have called for multiple respondents as a means of increasing the reliability of responses (Gerhart, Wright, McMahan and Snell 2000; Datta, Guthrie and Wright 2005). Only a few studies of HR effectiveness have collected information from more than one source. Huselid et al. (1997) collected their information mainly from HR managers but included a limited number of line managers. Khilji and Wang (2006) collected data on satisfaction with effectiveness from an

aggregated sample of line managers and staff. Wright, McMahan, Snell and Gerhart (2001), who collected data from senior HR and line managers, found that the HR managers had a consistently more optimistic view of the effectiveness of HR practices, of HR roles and of the HR contribution than the senior line managers. They imply that the views of the line managers, with their wider perspective as users of the practices, may be more valid.

Tsui (1987, 1990) found differences in the criteria used to judge the effectiveness of HR departments, notably between operational line managers and senior executives. Line managers focussed on implementation and support, whereas executives were more interested in strategic issues. She suggests, based on resource dependency theory (Pfeffer and Salancik 1978), that HR managers will pay more attention to the concerns of the executives who allocate their resources. Her findings confirmed this by revealing that executives have the most positive rating of the effectiveness of HR departments and line managers the least positive, with HR managers in-between. Her focus was on the effectiveness of HR departments rather than HR practices, although there is likely to be some overlap. Nevertheless, her results indicate that we should not assume that HR managers will invariably rate HR practices or indeed their own department more highly than other stakeholder groups.

Without disputing the importance of employee views, Wright et al. (2001) argued that the key views are those of the senior executives. They can help to develop and implement HR practices utilising their strategic oversight of how practices should be directed to ensure effectiveness. In so doing, they help to determine the strength of the HR climate. Furthermore, they are important politically in determining the allocation of resources to the HR function. This view is supported by Stanton, Young, Bartram and Leggat (2010) in a qualitative study. For these reasons, this paper focuses on the views of chief executive officers (CEOs) alongside HR managers and argues that their views about the effectiveness of HR practices matter the most in influencing outcomes.

Hypothesis 2: The effectiveness of HR practices as judged by senior managers will be more strongly associated with firm performance and other outcomes than the ratings of HR managers.

Consensus on HR effectiveness and a strong HR system

Bowen and Ostroff (2004) have emphasised the role of consensus between managers in delineating their concept of a 'strong' HR system and have hypothesised that a strong HR system is more likely to be associated with high performance. Khilji and Wang (2006) in analysing the reasons for the gap between intended and implemented HR practices cite the lack of top management commitment to ensure that HR practices are effectively implemented. This implies that there needs to be a consensus about the (high) effectiveness of HR practices. This consensus may be sought between line managers or perhaps more critically between line and HR managers. Bowen and Ostroff (2004) argue that 'agreement among top decision makers can help to foster consensus among employees, since it allows for more visible, relevant and consistent messages to be conveyed to employees' (p. 212). In other words, if HR and senior line managers agree about the effectiveness of HR practices, this communicates a more compelling message than one in which there is only limited agreement.

Hypothesis 3: Consensus on effectiveness of HR practices will be more strongly associated with outcomes than a high rating of effectiveness by one of either the senior line manager or HR manager.

HR effectiveness and proximal and distal outcomes

A number of writers (Guest 1997; Appelbaum et al. 2000; Wright, Gardner and Moynihan 2003) have argued that HR practices have their main impact through the way they affect employee attitudes and behaviour. These in turn, so they suggest, will have an impact on outcomes such as productivity and quality of goods and services, and will eventually be reflected in the financial performance of the firm. They suggest that the more proximal measures, such as employee attitudes and behaviour, absence and labour turnover will be more greatly affected by HR practices and their effectiveness than distal outcomes, such as financial performance, which may be affected by a variety of factors, such as marketing strategy and the competitive environment. This leads to our final hypothesis.

Hypothesis 4: HR effectiveness will be more strongly associated with proximal measures of employee attitudes and behaviour and labour turnover than with more distal measures such as financial performance.

Sample and study

Sample

Hypotheses were tested using a sample collected randomly from the Dun and Bradstreet database of UK companies employing 50 or more UK staff. Telephone interviews were conducted using a structured interview schedule. Because of this process, it is impossible to be clear about the response rate. The aim was to interview the HR director or the most senior person responsible for HR and the CEO or the most senior executive manager. In the event, interviews were completed with 610 managers responsible for HR (hereafter HR managers) and 462 CEOs/managing directors (hereafter CEOs; all but 4% had the CEO/MD title). Data were collected from both HR managers and CEOs in 237 companies and it is this matched sample that is used in this analysis. Thirty-six percent of the organisations were in the service sector, 15% were multinationals, the median organisation comprised 104 UK employees (the median is used due to the skewed nature of the distribution and large outliers), and 23% had one-quarter or more employees belonging to a union.

Measures

- (1) *HR practices.* Following a thorough review of the literature, HR practices were measured using 48 items that divided into nine groups covering recruitment and selection; training and development; appraisal; compensation and financial flexibility; job design; two-way communication; employment security and the internal labour market; single status and harmonisation; and quality/involvement. The emphasis was placed on what the literature would identify as 'high performance' or 'high commitment' as opposed to traditional practices. In most cases, the proportion of the workforce to which the practice applied was asked in the interview. This is based on an assumption, in one section of the HR literature (see, for example, Pfeffer 1998), that a distinctive feature of progressive HRM is that practices should be widely applied across the workforce rather than restricted to a select few. For some questions, such as the use of attitude surveys or single status practices, this approach was inappropriate and the question simply asked for the presence or the absence of the practice. Data on all 48 HR practices were collected only from the HR managers.

Following Becker and Huselid's (1998) argument about the need to measure the HR system as a whole, and in line with common practice, we used a mean score across the practices as the indicator of the presence of HR. As the number of items in each of the nine areas of HR differed, the scores were standardised to ensure that equal weighting was given to each.

- (2) *HR effectiveness*. Building on the work of Tsui (1987) and Huselid et al. (1997), we asked respondents about the effectiveness of each of the nine HR practices listed above in contributing to the achievement of organisational goals. All responses were provided on a five-point scale ranging from 'not at all effective' (1) to 'highly effective' (5). Factor analysis confirmed one clear factor (alpha 0.81 for HR managers and 0.82 for CEOs). For the subsequent analysis, we used the mean scores on these scales.
- (3) *Consensus*. Intraclass correlation coefficients were computed for the pairs of HR manager and CEO ratings to investigate the level of inter-rater agreement regarding effectiveness ratings (Bliese and Halverson 1998). To provide a measure of the extent of consensus regarding HR effectiveness, we first calculated the mean of the absolute arithmetic difference between HR manager and CEO reports for each of the nine items measuring effectiveness (mean difference = 0.99 on a five-point scale, indicating considerable differences in assessment when you consider that the standard deviations for the separate HR and CEO ratings of HR effectiveness are about 0.65). This was then reverse scored to reflect agreement rather than disagreement. This measure indicates agreement, but does not indicate level of effectiveness. For example, a high score may indicate that HR managers and CEOs agree that practices are ineffective. Therefore, to capture a measure that indicated both agreement and levels of effectiveness, we computed an interaction term by multiplying together the two measures of HR effectiveness (HR manager and CEO reports) and the measure of agreement. We treated this as an interaction term in our analysis, by first controlling the first- and second-order terms before examining the effects of the three-way interaction term.
- (4) *Performance outcomes*. We included a range of proximal and distal outcome measures. Five items measured managers' judgements of employees' *quality and commitment* (examples include "employee identification with your organisation's core values and goals", "the quality and competence of your employees" and "the level of output and results achieved by your employees"). Responses were provided on a five-point scale from 'very low' (1) to 'very high' (5). Factor analysis revealed a single factor with an alpha of 0.76 for HR managers and 0.77 for CEOs. HR managers provided information on levels of *labour turnover* in the previous year; the resulting responses followed a skewed distribution with outliers and was, therefore, recoded to reflect low-to-high levels of turnover as follows: 0–4.9% (0), 5–14.9% (1), 15–50% (2) and 50.1% + (3).

Subjective assessments of firm performance were obtained from both the HR managers and the CEOs. Managers were invited to rate the performance of their organisation compared with others in the same sector on *financial performance*, *labour productivity* and *quality of products/services* (three single-item measures). They did so on a five-point scale from way below average to much better than average. (Respondents were also provided with options apart from the scale to indicate no comparison possible, no relevant data available, or that they did not know.) A similar approach was used by Delaney and Huselid (1996), Guthrie (2001) and in the British Workplace Employment Relations Surveys (Cully, Woodland,

O'Reilly and Dix 1999; Kersley et al. 2006). There has been some debate about the validity of this type of subjective indicator of firm performance. Wall et al. (2004) argued that they have moderate-to-high validity, partly, as Delaney and Huselid also argue, because they are rating potentially objective and verifiable information. Forth and McNabb (2008), based on careful analysis of a large sample of workplaces, offered qualified support for the view that 'both types of performance measure produce similar results when used in structural models of the determinants of workplace performance' (p. 119). In this case, we use both objective and subjective measures. The objective data on company profit for the year of data collection were obtained from Dun and Bradstreet along with data on employee numbers. To provide an indicator of financial performance that was standard across sectors and could be related to the utilisation of HR, we computed a measure of *profit (or loss) per employee*.

- (5) *Control measures*. A number of standard control measures were included in the analysis. These included size, represented by the number of employees in the UK (coded 1 = less than 100 employees, 2 = 100–499 employees, 3 = 500 + employees, to reflect standard distinctions between small, medium and large organisations), sector (1 = services, 0 otherwise) and whether or not the firm was multinational or predominantly UK based. A number of industrial relations variables were included because these have been shown to influence HR practices in the UK context (Cully et al. 1999), consisting of trade union density (1 = 25% or more employees belonging to a trade union, 0 otherwise) and the presence of a consultative committee or a staff association. Finally, we included a measure of whether the senior person responsible for HR was in a specialist HR post because some organisations were quite small and did not have a formal HR function or HR specialist. The assumption was that, other things being equal, the presence of a specialist HR function might be associated with greater HR effectiveness.

Data analysis

In addition to the factor analyses already outlined, and the calculation of intra-class correlations, the data were subjected to a series of hierarchical regression analyses to test the hypotheses. We followed Aiken and West's (1991) recommendations for testing interactions. Interaction terms were created by multiplying the independent variable and the moderator, after mean-centering the variables. Mean centering reduces multicollinearity between the interaction term and its components (Aiken and West 1991).

To avoid loss of data due to missing values in variables not central to our hypotheses, median value replacement was used in the small number of cases where there were missing values in the control variables. Missing values in the self-report-dependent variables reflect respondents not knowing the answer; missing data for the measure of objective financial performance indicates that the information was not available from Dun and Bradstreet.

Results

The means, alphas and inter-correlations are given in Table 1. The median number of employees in the organisations is 104, indicating that many organisations are fairly small, and suggesting that the CEO or senior managers will be in a position to judge the effectiveness of HR practices. Only 43.1% had a person solely responsible for HR. They did not report significantly different levels of effectiveness of HR practices, whether

Table 1. Means, standard deviations and correlations for study variables.

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Organization size (HR)	1.688	0.679															
2. Services (HR)	0.359	0.481	0.085														
3. TU density (25 +) (HR)	0.232	0.423	0.179**	-0.182**													
4. HR post (HR)	0.435	0.497	0.492**	0.019	0.143*												
5. Staff association (HR)	0.371	0.484	0.161*	-0.047	0.033	0.137*											
6. Multinational (HR)	0.152	0.360	0.282**	0.002	-0.010	0.127	0.088										
7. HR practices (HR)	0.354	4.331	0.027	-0.031	-0.037	0.011	0.229**	0.256**									
8. Effectiveness HRP (HR)	3.362	0.631	0.047	0.086	-0.024	0.048	0.173**	0.140*	0.522**								
9. Effectiveness HRP (CEO)	3.483	0.672	-0.052	-0.040	-0.003	-0.050	-0.010	0.047	0.070	0.100							
10. Effectiveness agreement	1.807	0.446	0.025	-0.096	0.003	-0.008	0.012	0.079	0.118	0.102	0.072						
11. Quality and commitment	3.595	0.423	0.070	0.104	-0.060	0.017	0.039	0.208**	0.293**	0.539**	0.485**	0.018					
12. Quality of prods/ serv	3.977	0.550	0.083	-0.186**	0.096	-0.111	0.017	0.125	0.150*	0.187**	0.304**	0.073	0.280**				
13. Labour productivity	3.517	0.622	0.128*	-0.006	0.001	0.114	-0.014	0.056	0.057	0.178**	0.217**	0.039	0.430**	0.322**			
14. Labour turnover (HR)	0.893	0.751	0.200**	0.100	0.080	0.098	-0.080	-0.150*	-0.207**	-0.199**	-0.111	-0.031	-0.180**	-0.082	0.036		
15. Financial performance	3.653	0.722	0.150*	-0.071	0.071	0.082	0.013	0.115	0.131*	0.213**	0.164*	0.056	0.209**	0.266**	0.487**	0.049	
16. Profit/employee (£)	4247	6359	0.185*	-0.075	0.077	0.208**	-0.028	0.349**	0.178*	0.142	0.065	0.042	0.219**	0.025	0.176*	-0.061	0.446**

Notes: * $p < 0.05$, ** $p < 0.01$. Based on matched sample of HR manager and CEO. At univariate level, $N = 237$ for variables 1–9, 15, 16 and 20. N ranges between 208 and 236 for the remaining variables depending on missing values, except for profit/employee where $N = 180$. HR = HR manager responses and CEO = chief executive officer/senior line manager.

reported by the HR manager or the CEO, compared with organisations that did not have a person solely responsible for HR.

Intra-class correlation coefficients were calculated for the measure of effectiveness and the outcomes variables to assess the level of agreement between HR managers and CEOs. The results in Table 2 reveal that the scores for the ratings of HR effectiveness are $ICC(1) = 0.093$ and $ICC(2) = 0.170$, indicating rather low levels of agreement compared with the report by Bliese (2000) of an average $ICC(1)$ rating of 0.12 in the organisational research literature. A one-way analysis of variance (ANOVA) also did not indicate significant between-organisation differences, further supporting the lack of within-group agreement. We therefore used the effectiveness measures provided by HR managers and CEOs as separate variables in our analysis before exploring the impact of our consensus measure. For the four subjective outcome measures, there was a considerably higher level of consensus, and we, therefore, used the combined score in the subsequent analysis (i.e. the mean of HR manager and CEO ratings). The values exceed Bliese's (2000) average, and exceed the threshold of 0.20 used by Judge and Bono (2000) when examining agreement between two raters.

Hypothesis 1 proposed that the effectiveness of HR practices will be more important in determining outcomes than the presence of practices. The hypothesis was tested in two ways. First, both the presence of HR practices and their effectiveness, as judged by first HR managers and then CEOs, were examined separately using a series of linear regressions to determine which had the stronger beta weight and resulted in the largest change in R-square. Second, they were combined in the same regression to determine which had the stronger unique impact on the outcomes. The relevant results are given in Table 3.

The results provide good support for this first hypothesis. Considering the effects indicated by changes in R-square, effectiveness of HR practices is more strongly associated with the assessments of staff attitudes and behaviour, quality of goods and services, labour productivity, and ratings of financial performance compared with other organisations in the same sector. Counter to our hypothesis, the more independent measure of profit per employee was marginally associated ($p < 0.10$) with HR practices, but not with HR effectiveness. When HR practices and their effectiveness as rated by HR managers and CEOs are considered in the same regression, HR practices cease to be significantly associated with any outcomes, whereas effectiveness, as rated by both HR managers and CEOs continues to be significantly associated with the four subjective outcome measures, marginally associated with labour turnover ($p < 0.10$), but not associated with profit per employee. These findings, therefore, provide a strong support for the hypothesis that ratings of the effectiveness of HR will have a stronger association with outcomes than HR practices.

Table 2. ICC values for measures completed by HR managers and CEOs.

	<i>ICC1</i>	<i>ICC2</i>
HR effectiveness	0.093	0.170
Financial performance	0.332	0.498
Labour productivity	0.272	0.428
Quality of products/services	0.268	0.423
Quality and commitment	0.249	0.399

Table 3. Regression results examining associations between HR practices, HR effectiveness and outcomes.

	Quality and commitment N = 237	Quality of goods/ services N = 236	Labour productivity N = 236	Labour turnover N = 215	Financial performance N = 236	Profit per employee N = 180
Controls (HR)						
Organization size	0.015	0.159*	0.101	0.259***	0.126	0.027
Services	0.096	-0.184**	-0.024	0.083	-0.077	-0.077
TU density	-0.042	0.065	-0.030	0.049	0.035	0.041
HR post	-0.015	-0.209**	0.072	0.003	0.009	0.160*
Staff association	0.026	0.000	-0.042	-0.101	-0.020	-0.088
Multinational	0.203**	0.108	0.022	-0.214**	0.080	0.330***
R ²	0.057	0.090	0.023	0.104	0.037	0.165
F	2.302*	3.793***	0.902	4.04***	1.448	5.677***
HR practices (HR)	0.267***	0.133*	0.063	-0.149*	0.125 +	0.124 +
R ²	0.119	0.106	0.027	0.124	0.050	0.178
Change in R ^{2a}	0.063**	0.016*	0.003	0.020*	0.014	0.014 +
F	4.439	3.859***	0.889	4.186***	1.724	5.326***
HR effectiveness (HR)	0.480***	0.158**	0.164*	-0.173*	0.204**	0.112
HR effectiveness (CEO)	0.436***	0.275***	0.209***	-0.068	0.145*	0.045
R ²	0.504	0.204	0.099	0.139	0.102	0.179
Change in R ^{2a}	0.447***	0.113***	0.075***	0.035*	0.066***	0.015
F	28.958***	7.259***	3.103***	4.174***	3.237***	4.668***
HR practices (HR)	-0.008	0.035	-0.045	-0.074	0.015	0.085
HR effectiveness (HR)	0.484***	0.174*	0.186*	-0.137 +	0.196**	0.071
HR effectiveness (CEO)	0.436***	0.275***	0.209***	-0.067	0.145*	0.044
R ²	0.504	0.205	0.100	0.143	0.103	0.184
Change in R ^{2b}	0.385***	0.099***	0.073***	0.019	0.052**	0.006
F	25.632	6.456***	2.789***	3.806***	2.869**	4.261***

Table 3 – continued

	Quality and commitment <i>N</i> = 237	Quality of goods/ services <i>N</i> = 236	Labour productivity <i>N</i> = 236	Labour turnover <i>N</i> = 215	Financial performance <i>N</i> = 236	Profit per employee <i>N</i> = 180
Consensus	– 0.068	0.005	0.006	0.014	0.009	– 0.008
<i>R</i> ²	0.508	0.205	0.100	0.143	0.103	0.184
Change in <i>R</i> ^{2c}	0.000	0.000	0.000	0.000	0.000	0.000
<i>F</i>	23.378***	5.785***	2.500**	3.414***	2.573**	3.814***
Consensus	– 0.060	– 0.022	– 0.039	– 0.012	– 0.068	– 0.002
HR effectiveness(HR) × HR effectiveness	0.055	0.004	0.041	– 0.069	0.116	0.096
(CEO)						
HR effectiveness(HR) × consensus	– 0.042	– 0.062	0.072	– 0.100	0.123	– 0.010
HR effectiveness(CEO) × consensus	– 0.020	– 0.060	– 0.053	– 0.057	0.061	– 0.048
HR effectiveness(HR) × HR effectiveness(CEO) × consensus	0.071	– 0.041	– 0.044	– 0.111	– 0.035	0.110
(CEO) × consensus						
<i>R</i> ²	0.513	0.208	0.111	0.155	0.125	0.194
Change in <i>R</i> ^{2c}	0.005	0.004	0.011	0.012	0.023	0.010
	16.722***	4.156***	1.1964*	2.629**	2.258**	2.845***

Notes: + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. Based on matched sample of HR manager and CEO. Dependent variables present aggregate of CEO and HR manager responses except labour turnover (reported by HR manager) and profit per employee (supplied by Dun and Bradstreet). Independent variables reported by HR managers, unless indicated. CEO = Chief executive officer/senior line manager.

^a Change in R^2 assessed against model including controls.

^b Change in R^2 assessed against model including controls and HR practices.

^c Change in R^2 assessed against model including controls, HR practices and HR effectiveness.

Hypothesis 2 stated that the effectiveness ratings of CEOs would be more strongly associated with outcomes than the ratings by HR managers. The relevant results are given in Table 3. Without considering whether the associations are significant, we can see that the beta weights for HR managers are stronger than those for CEOs with respect to impact on employee attitudes and behaviour, labour turnover, subjective financial performance and profit per employee. Beta weights for CEOs are stronger only with respect to the subjective assessment of quality of goods and services and labour productivity. There is, therefore, very little support for the hypothesis that the CEO's assessments of the effectiveness of HR practices will be more closely aligned with the outcomes.

Hypothesis 3 stated that consensus on the effectiveness of HR practices will be more strongly associated with outcomes than a high rating of effectiveness by either one or other manager. To test this hypothesis, we first entered our consensus measure (to examine whether there were any effects due to consensus, regardless of the level of agreement), followed by three first-order interaction terms and our second-order interaction term (reflecting consensus and level of effectiveness). The results given in Table 3 show no impact of higher levels of consensus on any outcomes. There is also no significant impact of the interaction between consensus and high levels of effectiveness. It should be noted that when the consensus measure is introduced, the individual measures of the effectiveness of HR managers and CEOs remain significant where they had been significant prior to the introduction of the consensus measure.

Hypothesis 4 proposed that effectiveness would be more strongly associated with proximal than with distal measures. Data presented in the previous tables confirm that the strongest associations are between effectiveness and the management ratings of employee attitudes and behaviour (i.e. employee quality and commitment). The second most proximal outcome is labour turnover. For HR managers but not for CEOs, there was a significant association between HR effectiveness and lower labour turnover. In the case of HR managers, the effect sizes, reflected in the beta weights, are much weaker than the association with employee attitudes and behaviour, similar to the subjective performance outcomes, but stronger than the association with profit per employee. Among the three items rating comparative performance, the financial measure is the most distal, but among HR managers it is more strongly associated with HR effectiveness than the quality of goods and services. Among the CEOs, HR effectiveness is more strongly associated with the quality of goods and services followed by productivity and finally comparative financial performance. This is more in line with the expectations. In summary, there is partial support for this hypothesis.

Discussion

This study adopted a stakeholder (Tsui 1987, 1990) perspective to analyse the HRM – performance relationship by exploring perceptions of HR managers and CEOs, independently and in combination, about the effectiveness of HRM and its link to a range of outcomes. The opportunity to combine responses on HR effectiveness into a measure of consensus also provided a partial test of a core component of Bowen and Ostroff's (2004) concept of a strong HR system. A distinctive focus has been on the measurement of the effectiveness of HR practices based on the arguments of Huselid et al. (1997), Wright and Nishii (2006) and Khilji and Wang (2006) that the effectiveness of HR practices and their implementation will be a more important determinant of outcomes than the mere presence of practices that may or may not be of high quality and may or may not be applied with enthusiasm by managers at all levels.

This study demonstrates an association between both HR practices and HR effectiveness and a range of outcomes. The only outcome for which there is no clear significant association is the measure of profit per employee. In this context, it is worth noting that when we use the larger sample of 610 HR managers, there is a significant association between both more HR practices and higher effectiveness and all the outcomes including profit per employee, confirming the results reported for HR practices in the reviews by Boselie et al. (2005) and Combs et al. (2006), but going further in confirming that this also holds good for HR effectiveness.

The risks in considering the presence of HR practices without taking into account their quality and appropriateness for the context in which they are to be applied formed the basis of the first hypothesis which suggested that the effectiveness of HR practices will be more important than the presence of practices in determining outcomes. There was a strong support for this hypothesis. When the presence of HR practices was compared with their effectiveness, the effectiveness had the stronger impact in all cases except for profit per employee. This suggests that future studies should take more account of HR effectiveness.

The second aim of study was to compare the perceptions of HR managers and CEOs about the effectiveness of HR practices and to test the hypothesis that CEO assessments will be more strongly associated with outcomes than those of HR managers. Our findings show no support for this hypothesis. The HR managers' ratings of effectiveness of HR practices were more strongly associated with the 'objective' measures of labour turnover and profit per employee, as reflected in the size of the beta weights. For the ratings of employee attitudes and behaviour and comparative performance indicators, there was no clear indication of a stronger association with outcomes for either CEOs or HR managers. We lack information about the basis for these effectiveness judgements. If we assume that the assessments of effectiveness are based on some attributional process concerning the likelihood that HR practices can have an impact on outcomes, then we might expect CEOs, who typically have oversight of policy implementation, to be in the better position to make a judgement. This is more feasible in smaller organisations and we should bear in mind that the median size of those in the sample is 104 employees. Furthermore, the mean scores for effectiveness suggest that CEOs provide higher average ratings of HR effectiveness than HR managers. If we adopt an alternative perspective and accept that ratings of the effectiveness of HR practices are based on some judgement using independent criteria of what constitute high quality HR practices, then HR managers may be in a better position because of their professional knowledge. However, we can probably reject this assumption because there is no evidence of differences in effectiveness ratings of those responsible for HR who were or were not HR specialists.

The third aim of this study was to explore Bowen and Ostroff's (2004) concept of strength of the HR system. We used a measure of agreement between CEOs and HR managers as an indicator of consensus which, along with distinctiveness and consistency, they identify as key features of a strong HR system. We explored both agreement about HR effectiveness and the interaction between agreement and levels of effectiveness. This second measure is arguably more important because it is possible to agree that HR practices are ineffective. We found no evidence that agreement about HR effectiveness affected outcomes and very little evidence that the interaction affected outcomes. We cannot explain this result in terms of the low levels of agreement between CEOs and HR managers because the analysis focuses on a comparison of those cases where there was more or less agreement. It therefore calls into question the role of consensus, at least based on a measure of HR effectiveness.

One of the unexpected results is the low level of agreement between HR managers and CEOs about the effectiveness of the HR practices. We can speculate on the reasons for this. Legge (1978) emphasised the ambiguities in judging the HR effectiveness and, in particular, the scope for a range of attributions for effectiveness. Nishii et al. (2008) found that employees make different attributions about the same HR practices and that this affects attitudes and behaviour, confirming the importance of attributions about HR practices. On the other hand, Liao et al. (2009) showed that high levels of agreement between managers and employees are possible and have a positive effect on service quality. There has also been some debate about the most appropriate measure of agreement. We used a measure derived from the mean difference score across the nine items measuring HR effectiveness. We considered alternative measures such as the mean differences in overall ratings of HR effectiveness reported by HR managers and CEOs, and the variances in the differences, but considered this measure to be the most transparent.

The final aim was to explore the impact of effectiveness on a range of outcomes, hypothesising that the association would be stronger for proximal outcomes and gradually weaken as they became more distal. Although the analysis is potentially compromised by the mix of subjective and independent objective measures, there is some support for the hypothesis. Ratings of HR effectiveness are most strongly associated with employee attitudes and behaviour. Labour turnover shows a similar level of association to the subjective ratings among HR managers but falls short of them among the CEOs. The more distal outcome of profit per employee shows the weakest associations, more notably among CEOs.

Drawing these results together, it is clear that there is mixed, in some cases, weak or no support for our hypotheses. The results confirm that there is an association between HR effectiveness and a range of outcomes. This is in line with the findings from other studies (Delaney and Huselid 1996; Huselid et al. 1997). Furthermore, HR effectiveness shows a consistently stronger association with most outcomes than HR practices. These are important findings. There was limited agreement between HR managers and CEOs about HR effectiveness, but even where there was some agreement, there was no evidence that this affected outcomes. This appears to challenge the assumption within the Bowen and Ostroff (2004) model concerning the role of consensus. On the other hand, it can be argued, following Liao et al. (2009) and Bos-Nehles (2010) that consensus between front-line managers and subordinates is more important. Future research could usefully explore consensus across different categories of managers and staff.

Despite the generally low agreement about effectiveness, there was a consistent pattern of associations between ratings of the effectiveness of HR practices and ratings of the various outcomes. Although this may reflect an element of common method variance, it also shows that there may be shared beliefs that effective practices are associated with positive outcomes. In this context, it should also be noted that there was a fairly high correlation in Table 1 between the rating of performance compared with other firms in the same sector and the independent measure of profit per employee (0.305 for HR managers and 0.445 for CEOs) suggesting that there is some validity in the subjective ratings and that we should treat these subjective assessments seriously. If we do so, then the impact of HR effectiveness on outcomes appears to be rather stronger, but it does not improve the case for consensus.

Limitations and future research

This study has been distinctive in analysing data from a large sample consisting of both HR managers and CEOs. It is also distinctive in collecting data on both HR practices and

HR effectiveness. In doing so, we have addressed two of the three key elements on which data are required to provide a full test of HR effectiveness. The third and missing element is local HR implementation. We have no way of knowing how important this is compared with the presence of HR practices and some assessment of their effectiveness. Logically, implementation is seriously constrained if the practices are not present or if they are judged to be ineffective, so we see these as essential prior steps. Future research should seek to incorporate implementation effectiveness into the same study.

One of the problems with cross-sectional studies is that knowledge of likely performance outcomes may affect perceptions of effectiveness. Future research should use longitudinal studies and, where possible, independent performance measures.

We found no significant interaction between agreement on HR effectiveness and outcomes. This suggests that consensus, as defined by Bowen and Ostroff (2004), is not an important variable. However, this was an incomplete test of consensus as they define it, partly because their definition also includes perceptions of fairness and partly because they favour assessment by employees. Future research should, therefore, seek fuller tests of the model through a more extensive range of sources of assessment. Qualitative case studies such as that reported by Stanton et al. (2010) can also contribute to the evaluation of Bowen and Ostroff's model.

Conclusions

In this paper, we have shown that assessments of HR effectiveness are associated with outcomes; and we have been able to show that HR effectiveness is often more important than the presence of HR practices. Consensus on HR effectiveness, which was used as a partial test of Bowen and Ostroff's concept of a strong HR system, did not have any significant association with any outcomes. The study also revealed very low levels of agreement about HR effectiveness. There are three elements in a logical model of HR effectiveness. HR practices must be present, they must be effective and they must be effectively implemented. This study has focussed on the first two of these elements, arguing that they are essential prerequisites for the third. Future research should seek to combine all three. In doing so, there is also a case for more qualitative research exploring how different stakeholders arrive at judgements of HR effectiveness.

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