



Contents lists available at ScienceDirect

European Management Journal

journal homepage: www.elsevier.com/locate/emj

High commitment HR practices, the employment relationship and job performance: A test of a mediation model

Felisa Latorre ^{a,*}, David Guest ^b, José Ramos ^c, Francisco J. Gracia ^c

^a Escuela de Negocios, Instituto Tecnológico Autónomo de México, ITAM, Río Hondo, 1, 0100 City of México, Mexico

^b School of Management and Business, King's College, London, 150 Stamford Street, London, United Kingdom

^c Departamento de Psicología Social, IDOCAL, Universidad de València, Avda. Blasco Ibáñez, 21, Valencia, Spain

ARTICLE INFO

Article history:

Received 21 March 2015

Received in revised form

11 May 2016

Accepted 16 May 2016

Available online xxx

Keywords:

High commitment HR practices

Performance

Social exchange

Psychological contract

Job insecurity

Organizational support

Job satisfaction

ABSTRACT

Purpose: This study outlines and tests a high commitment model of human resource (HR) practices and its association with outcomes through a path including employee perceptions and attitudes, thereby seeking a new way of opening the so-called 'black box' between human resource management (HRM) and performance.

Methodology: Data were collected through a questionnaire survey with responses from 835 Spanish workers from three sectors (services, education and food manufacture). In order to test hypotheses, we conducted a path analysis.

Findings: High commitment HR practices were related to employee performance through the mediating effect of perceived organizational support, a fulfilled psychological contract and job security, as key features of the employment relationship, and job satisfaction.

Research implications/limitations: This study highlights the roles of high commitment HR and a social exchange model that places a positive employment relationship at the centre of the link between HRM and performance. In so doing, it supports a causal chain from input (HR practices) to perceptions (the employment relationship), attitudes (job satisfaction) and performance (employee behaviour). However, it is based on self-report and cross-sectional data, and hence future research should obtain independent performance data and should ideally be longitudinal.

Originality/value: This study is novel in its analysis of how high commitment HRM affects performance through the employment relationship within a social exchange analytic framework. As such, it offers an alternative, albeit complementary view of the HRM – performance link to the more dominant AMO (ability, motivation and opportunity) model.

© 2016 Elsevier Ltd. All rights reserved.

1. Introduction

Recent decades have seen a burgeoning of research and writing on human resource management (HRM). It has been argued that for the field to progress, we need good theory about the nature of HRM, relevant outcomes and the relationship between HRM and outcomes (Guest, 1997). Much of the research attention has focused on the relationship between HRM and performance, and their outcomes concluded that there is evidence of a positive association

(Boselie, Dietz, & Boon, 2005; Combs, Liu, Hall, & Ketchen, 2006). However, the studies noted a failure to fully consider the process whereby HRM and outcomes might be linked. Subsequent research has begun to explore this linkage process, dominated by the use of the AMO model that explores how human resource (HR) practices affect the ability (A), motivation (M) and opportunity to contribute (O) of employees. Some studies have shown evidence to support the mediating role of these variables (Jiang, Lepak, Hu, & Baer, 2012; Subramony, 2009).

Despite the significant focus of the AMO model on employee behaviour, this approach fails to explain the process whereby HR practices affect employee behaviour. In order to understand this, as Wright and Gardner (2003) have argued, we need to incorporate the role of employee perceptions and employee attitudes. The analytic framework that may be best able to incorporate perceptions

* Corresponding author.

E-mail addresses: Felisa.Latorre@itam.mx (F. Latorre), david.guest@kcl.ac.uk (D. Guest), Jose.Ramos@uv.es (J. Ramos), Francisco.Gracia@uv.es (F.J. Gracia).

¹ The participation of the first author in this paper was supported by the Asociación Mexicana de Cultura A.C.

and attitudes and link them to performance is social exchange theory (Blau, 1964). Drawing on signalling theory (Suazo, Martinez, & Sandoval, 2009), it proposes that HR practices signal to employees what the organization has to offer; and the norm of reciprocity (Gouldner, 1960) that lies at the heart of social exchange theory proposes that employees will feel obliged to respond with positive attitudes and behaviour, mediated by perceptions of the signals from the organization. This study therefore presents an alternative route to that offered by the AMO model to explain the relationship between HRM and performance. It seeks to complement rather than contradict the AMO model, but it is based on distinctly different assumptions about the core aims of HR practices. Furthermore, it responds to calls to place employees at the centre of the analysis of the HRM – performance relationship.

There has been a steadily growing body of research exploring employee perceptions of HRM. For example, Nishii, Lepak, and Schneider (2008) and Van de Voorde and Beijer (2015) studied employees' perceptions of HRM and the attributions they make about management motives for utilizing HR practices. Social exchange theory focuses more specifically on the employment relationship and the implied exchanges in that relationship. In so doing it draws attention to different perceptions and their impact. Three sets of perceptions closely associated with social exchange form the focus of this study, namely perceived organizational support (POS), the psychological contract and job security. The proposition is that these perceptions determine whether there is a positive employment relationship and it determines levels of satisfaction, motivation and performance. It is these issues and this process of linking HRM and performance that is explored in this study. The first part of this study explains why we need to study employees' individual perceptions of high commitment HR practices and how these can, in turn, develop perceptions of organizational support, fulfilment of the psychological contract and higher job security, which we characterize as central features of a positive employment relationship from an employee perspective. We then consider how those perceptions are related to job satisfaction and employees' performance. Subsequent sections set out the methodology for the study, report the findings and discuss the implications of the results.

2. Theoretical background

Since interest grew in finding the relationship between HRM and performance, stimulated in particular by the seminal paper by Huselid (1995), descriptions of HR practices have often been prefaced by words that imply their aims. The most commonly used are high performance HR, high commitment HR and high involvement HR. The terms high performance HR or even high performance work systems (HPWS) have tended to dominate the literature, reflecting the particular interest in those practices most likely to lead to high performance. However one of the early influential studies by Walton (1985) emphasized the need to move from an approach based on control to one based on commitment, implying the need for a distinctive set of HR practices. This has been followed up in subsequent research and writing (see, for example, Pfeffer, 1998; Wood & Albanese, 1995). The case for high involvement HR practices has been outlined by Boxall and Macky (2009). Both the high involvement and more particularly the high commitment approaches to HRM imply that performance needs to be based on a positive employment relationship. As such, they can be differentiated from the AMO model that has as its main focus those HR practices that improve employee performance, leaving aside any concern for the employment relationship.

The aim of this study is to explore the effect of high commitment HRM on employee performance and to test a model explaining how

it has an impact. The underlying assumption of this model, reflecting the ideas of Walton and others, is that the organization needs to develop a positive reciprocal relationship with employees with the aim of achieving mutual benefits. Again, this can be contrasted with the AMO model, where the focus is on organizational benefits, particularly on performance outcomes, to the neglect of employee concerns. It is reflected in reviews raising questions about how far an approach based on the concept of high performance HR practices can result in both high performance and high employee well-being (Godard, 2004; van de Voorde, Paauwe & Veldhoven, 2012). Our proposition is that a high commitment approach to HRM is more likely to lead to mutual benefits reflected in both high satisfaction and high performance and resulting from a positive social exchange.

Social exchange theory has been widely used as an explanatory framework in organizational behaviour and employment relationships (see, for example Coyle-Shapiro & Conway, 2004). The central argument is that if an organization provides, or at least offers, something that employees value, they will reciprocate by offering in return something that the organization values. A classic example is the psychological contract (Rousseau, 1995), which has been defined as 'an individual's belief regarding the terms and conditions of a reciprocal exchange agreement between the focal person and another party'. A psychological contract emerges when one party believes that a promise of future returns has been made, a contribution has been given and thus, an obligation has been created to provide future benefits (Rousseau, 1989, p.123). Rousseau and Greller (1994) showed how HR practices signal the content of the psychological contract and Guest and Conway (2002) showed how these practices can help communicate the content of the psychological contract. In line with exchange theory, the psychological contract is concerned with mutual promises and obligations, and studies have consistently shown that where organizations keep their promises there is higher trust and lower intention to quit the organization (Zhao, Wayne, Glibkowski, & Bravo, 2007).

While the employment relationship can be considered at a variety of levels, the decline of collective activity in many countries has shifted the focus to the relationship at the individual level (Guest, 2004). One manifestation of this is the growing interest in the concept of I-Deals (Rousseau, 2005), defined as idiosyncratic deals that individual employees negotiate for themselves with their employer. Reflecting this focus, there have been calls to pay more attention to employee attitudes and perceptions in seeking to understand the effect of HR practices (Kehoe & Wright, 2010; Piening, Baluch, & Ridder, 2014). A number of features of the employment relationship are likely to be particularly salient in promoting mutual benefits over the long term. Of them, POS, fulfilment of the psychological contract and job security are particularly salient and have been previously analysed within the context of exchange theory. The basis for this claim and the resulting hypotheses are elaborated below.

2.1. Influence of HR practices on POS, the psychological contract and job security

POS has been defined as 'beliefs by employees about their organization that might contribute to the perception that the organization values their contributions and cares about their well-being' (Eisenberger, Huntington, Hutchison & Sowa, 1986; p.501). We expect high commitment HR practices to be associated with POS, because they signal a sense of caring for the well-being of employees. Several studies have highlighted the association between specific high commitment HR practices and POS. For example, Liu (2004) found that employee perceptions of pay level, career development opportunities and work-family support were

positively related to their POS, while Allen, Shore, and Griffeth (2003) found that perceptions of participation in decision making, growth opportunities and fairness of rewards/recognition were consistently and positively related to POS. In line with signalling theory (Bowen & Ostroff, 2004), we expect that the presence of more high commitment HR practices will be positively associated with POS.

H1. High commitment HR practices will be positively associated with perceived organizational support.

As already noted, social exchange theory lies at the heart of the psychological contract with its assumptions of mutual promises and obligations. We might therefore expect that a richer set of promises, reflected in high commitment HR practices will lead to what employees perceive as a potentially positive psychological contract and if it is fulfilled, then it will result in both high satisfaction and, through the norm of reciprocity, an appropriate behavioural response from employees. There is extensive evidence about both the antecedents and consequences of the psychological contract (for a review, see Conway & Briner, 2005). HR practices have been identified as key antecedents of the psychological contract (Rousseau & Greller, 1994), a finding confirmed by Turnley and Feldman (1999), Guest and Conway (2002) and supported in the wider review by Conway and Briner (2005). In addition to shaping the content of the psychological contract, HR practices have been shown to affect the likelihood that the organization will fulfil its promises and commitments to employees (Whitener, 2001). Most studies have indicated that it is the fulfilment of the psychological contract rather than the content that affects employee reactions. Within our analytic framework, one reason for this is that HR practices that are in the public domain offer a clearer signal of intended behaviour and by implication are more explicit. As a result, the organization is more likely to feel obliged to address them by fulfilling the inherent promise. We therefore offer the following hypothesis:

H2. High commitment HR practices will be positively associated with greater fulfilment of the psychological contract.

High commitment HRM implies a long-term employment relationship and important feature of this for employees will be their sense of employment security. Indeed, some authors have gone so far as to suggest that a promise of employment security is a central feature of a high commitment approach (see, for example, Pfeffer, 1998). A sense of job security is likely to promote trust and therefore a greater willingness to reciprocate within the employment relationship. While a promise of job security may not be an essential element within the set of HR practices, signals of concern for both short- and long-term well-being of employees in the content of HR practices, which is more likely to be a feature of high commitment HRM, should enhance the sense of job security.

It has been suggested that increases in flexible working practices and the need to achieve rapid organizational change have resulted in increased job insecurity (Cappelli, 1999). Within a number of European countries, and notably Spain, a sizeable minority of workers are employed on temporary contracts. However, organizations have choices about how far to pursue HR policies that create high security. For example, Guest (2000) argued that one of the goals of HRM should be to enhance employees' commitment and that this could be best achieved through HR practices that promote job security and fair treatment. In contemporary organizations, enhancing employee perception of job security is likely to be a key element of the psychological climate to improve employee commitment to the organization. There is evidence that certain HR practices can enhance the sense of job security. For example,

Kammeyer-Mueller and Liao (2006) showed that in the context of downsizing the use of HR practices, such as participation and communication, increased perceived job security, while training and development enhanced perceptions of employability. It therefore seems that high commitment HR practices could enhance perceived job security among employees. We therefore propose that.

H3. High commitment HR practice will be positively associated with perceived job security.

2.2. High commitment HR practices and job satisfaction

The social exchange model proposes that if the organization offers something that is perceived as positive, it will in turn receive a positive affective reaction. Therefore, high commitment HR practices that imply a number of positive outcomes for employees will be expected to result in higher levels of job satisfaction. Evidence in support of this comes from research by, for example, Guest and Conway (1999), who were able to show that the presence of more HR practices, as reported by workers, was associated with higher levels of satisfaction. In addition, Garrido, Pérez, and Antón (2005) found that there was a relationship between HR practices and job satisfaction among Spanish sales managers. Our argument is that the presence of relevant HR practices is a source of satisfaction in itself, because of the positive signals they provide. However, it may additionally be mediated by interpretation and perceptions of those practices as they relate to other aspects of the exchange relationship. We develop that argument below. However, for the present scenario, we simply hypothesize as follows:

H4. High commitment HR practices will be positively associated with job satisfaction.

2.3. Relationships between POS, the psychological contract and job security and job satisfaction

High levels of POS are likely to create a positive impact and, according to social exchange theory, increase the probability of a reciprocal response. Eisenberger et al. (1986) addressed the psychological processes underlying consequences of POS. Specifically, this theory supported the view that POS should contribute to overall job satisfaction by meeting socioemotional needs, increasing performance–reward expectancies and signalling the availability of aid when it is needed. This support could generate a positive attitude to their jobs, making employees feel satisfied. Many studies have found that organizational support is positively related to job satisfaction and these are brought together in Rhoades and Eisenberger's (2002) meta-analysis, which indicated that POS was related to a range of behaviours and attitudes, including job satisfaction. Hence, we hypothesize that.

H5. POS will be positively associated with job satisfaction.

Psychological contract theory describes how the reciprocal socioemotional bond between employee and employer depends on the kind of promises made to the employee, the obligations required in return and the extent to which the promises are fulfilled (Rousseau, 1995). Higher fulfilment implies a positive exchange, generating a positive affective response from employees. Studies have generally confirmed that a fulfilled psychological contract is related to satisfaction and commitment (Conway & Briner, 2005). Therefore, again on the basis of social exchange theory, we hypothesize that.

H6. Fulfilment of the psychological contract will be positively associated with job satisfaction.

A guarantee of job security could be interpreted by employees as a signal of the organization caring about their well-being and is therefore likely to generate a positive exchange and enhance the employment relationship. Job security is generally conceived as an antecedent of job satisfaction, and has been related to job satisfaction in numerous studies (Buitendach & De Witte, 2005; Hellgren, Sverke, & Isaksson, 1999). Meta-analyses by Sverke, Hellgren and Näswall (2002) and Chen and Chan (2007) confirm this relationship. Therefore, we hypothesize that.

H7. Perceived job security will be positively associated with job satisfaction.

It has been widely suggested that high commitment HR practices affect outcomes through employee perceptions, attitudes and, therefore, behaviour (Appelbaum, Bailey, Berg, & Kalleberg, 2000; Wright & Gardner, 2003). Within our social exchange framework and the emphasis on the employment relationship, we have highlighted the role of perceptions of organizational support, the psychological contract and employment security. We have reviewed the literature showing that HR practices are antecedents and job satisfaction is a consequence of these perceptions. It is therefore likely that they will act as partial mediators of the relationship between HR practices and job satisfaction. We therefore hypothesize:

H8. Perceived organizational support, fulfilment of the psychological contract and job security will be partial mediators of the relationship between HR practices and job satisfaction.

2.4. Relationship between job satisfaction and employee performance

The relationship between job satisfaction and performance has always been controversial. Early reviews, such as that by Iaffaldano and Muchinsky (1985), found a small positive relationship (0.17). More recent evidence suggests a stronger relationship at the individual level between job satisfaction and performance (Harrison, Newman, & Roth, 2006), and an extensive meta-analysis by Judge, Thoresen, Bono, and Patton (2001) reported a correlation between job satisfaction and job performance of 0.30.

In addition to questions about the strength of any association, there has also been uncertainty about the causal relationship. Schneider, Hanges, Smith, and Salvaggio (2003), in a longitudinal study at unit level, concluded that the evidence was as strong in support of the performance – satisfaction link as the satisfaction – performance link. Estreder and Adell (2005) also found a reciprocal relationship between job satisfaction and employee performance in a sample of Spanish teachers. Thus, the causal direction of the job satisfaction–performance relationship remains unclear in the literature. Our model builds on exchange theory which proposes that employees must first perceive and react positively to management offers before responding with their own behaviour. The logic is therefore that job satisfaction precedes the behavioural response. As a result, we test a chain model of input–perception–attitude–behaviour. Thus, we hypothesize that:

H9. Job satisfaction will be positively associated with employee performance.

Following the logic of exchange theory and building on the evidence about the relationship between POS, a fulfilled psychological contract and job security and job satisfaction (see Conway & Briner, 2005; Aselage & Eisenberger, 2003), we again follow the perceptions–attitude–behaviour chain to propose:

H10. Job satisfaction will mediate the relationship between perceptions of organizational support, fulfilment of the psychological contract and job security and performance.

Previous research at the individual level on the relationship between HRM and performance has explored a range of organizationally relevant outcomes, including labour turnover and organizational citizenship behaviour as well as individual job performance. Much less attention has been paid to absenteeism, yet in many organizations, high levels of absence can pose serious problems. Furthermore, we would expect within the social exchange model that those feeling obliged to reciprocate what is offered by the organization would be motivated to attend at work if at all possible. By contrast, those who are not impressed by what the organization is offering, and who as a result perceive a lack of organizational support and believe that the organization is not keeping the promises reflected in the psychological contract are likely to be more dissatisfied.

Absenteeism is a withdrawal behaviour that has potentially damaging consequences for both the individual and organization (Berry, Lelchouk & Clark, 2012; Koslowsky, 2009). While early studies of the relationship between absenteeism and job satisfaction at the individual level produced only weak and inconsistent findings (Chadwick-Jones, Brown, & Nicholson, 1982; Hackett & Guion, 1985), researchers have generally suggested that dissatisfaction increases absenteeism (Roelen, Koopmans, Notenbomer, & Groothoff, 2008; Tett & Meyer, 1993). In a meta-analysis by Harrison et al. (2006), which analysed the relationship between job attitudes and withdrawal behaviour, job satisfaction was negatively related to absenteeism. As a result, we hypothesize:

H11. Job satisfaction will be negatively associated with absenteeism.

We proposed that POS, a fulfilled psychological contract and job security are related to job satisfaction and that job satisfaction is negatively related to absenteeism. As one of our aims is to test the employee perceptions in the casual chain of HR practices–perceptions–attitudes–behaviour, we also propose:

H12. Job satisfaction will mediate the relationship between perceived organizational support, fulfilment of the psychological contract and job security and absenteeism.

Drawing these hypotheses together, the main goal of this study is to explore a distinctive model based on social exchange theory that places a positive employment relationship at the heart of the analysis to examine linkages in the HRM – performance relationship. We do this in the context of a high commitment model of HRM, which implies a concern for employee well-being; and we undertake analysis at the individual level. It is this concern for employee well-being within a high commitment HR model that encourages the kind of reciprocation from employees that can usefully be understood in the context of social exchange theory. Furthermore, through this approach, we place employees and their perceptions, attitudes and behaviour at the heart of the analysis. The hypotheses outlined above provide the basis for testing this model in the context of the variables we have used to operationalize it. The following section sets out how we conducted the study and the methods used to measure the constructs.

3. Method

3.1. Sample

The sample was composed of 835 Spanish employees. The average tenure was 7.77 (SD = 8.99) years, the average age was 34

(SD = 9.52) years and 51% were females. The sample was deliberately broad being drawn from three quite different sectors to take account of different contexts and potentially different approaches to HRM and the employment relationship. A total of 328 employees worked in 10 companies engaged in food production, where many jobs require relatively low skills; 245 employees worked in 10 companies in the retail sector and represent the growing service sector with moderate skill levels. Finally, 262 employees worked in 20 educational organizations representing predominantly professional skills. A distinctive feature of employment in Spain is the high proportion of temporary workers and in this sample it was 33%, which is broadly representative of the national picture at the time of data collection. This is likely to have a bearing on job security. Despite the range of employment contexts, the educational level of the sample was high; 67% of employees had an undergraduate qualification, while 33% had qualifications at high school level or lower.

3.2. Procedure

Following an extensive pilot study to validate our measures, we contacted organizations from the three sectors first to gain access and then to explain to the head of the HR department of each organization the purpose of the study and to request their participation. Upon agreement, employees filled in the questionnaires under the supervision of the researchers. In exceptional cases, employees mailed their questionnaires in a sealed envelope. Confidentiality was guaranteed, and participation was voluntary.

3.3. Measures

3.3.1. Control variables

Type of contract. Employees were asked to indicate if they had a permanent contract with their organization. The response range was Yes = 1; No = 0.

Sector. Data were gathered from three different sectors (Manufacturing = 1; Retail service = 2; Education = 3). In order to control for the effect of sector, two dummy variables (manufacturing and service) were created with education as the reference sector.

3.3.2. Independent variables

3.3.2.1. HR practices. There has been much debate about the best way to measure HR practices and from whom accounts of the practices should be obtained. While there has been an extensive debate about bundles of practices, the dominant approach in the literature has been to provide an additive account of the number of practices present. Underlying this is the assumption that HRM is best viewed as a system (Becker & Huselid, 1998) and that the higher the presence of relevant practices, the stronger the consistent signals about the intentions underpinning them (Bowen & Ostroff, 2004). There is also an increasing view that employees are the best source of information about the implementation of HR practices since HR managers, particularly those at senior levels are often not in a position to know what is happening on the ground (Wright & Boswell, 2002). We therefore adopted the standard approach of asking employees to report those that they had experienced or knew were in place in their organization and counting the number on which they gave a positive response.

Following a thorough review of the literature and after the pilot study, eight high commitment HR practices were identified. They consisted of four standard HR practices found in many surveys, including training and development, provision of merit pay, use of performance appraisal and provision of interesting/varied jobs. In addition, the following four items more specifically related to

employee well-being were included: an environment free of harassment, equal opportunities and support with nonwork responsibilities and participation in decision making. An example is: 'Have you received a formal performance appraisal during the past year?' The response range was 1 = No; 2 = Yes; 3 = I don't know. The measure is scored by taking a count of the 'yes' responses and can therefore range from 0 to 8.

3.3.3. Mediating variables

Perceived organizational support. POS was measured with a shortened four-item version of the Eisenberger, Fasolo, and Davis-LaMastro (1990) scale. A sample item is 'My organization really takes care about my welfare'. Responses ranged from 1 (strongly disagree) to 5 (strongly agree).

Psychological contract. The psychological contract was measured with a list of 15 promises that might be made by employers to employees based on a review of psychological contract measures and modified in the pilot study (Isaksson et al., 2003). Employees were asked to indicate whether they believed their employer had made a promise to them with respect to each of the 15 items and if so, to what extent that promise had been fulfilled using a five-point scale as follows: 0 = no promise; 1 = yes, but promise not kept at all; 2 = yes, but promise only kept a little; 3 = yes, promise half kept; 4 = yes, and promise largely kept; and 5 = yes, and promise fully kept. An overall mean score for psychological contract fulfilment was computed based only on those items on which the employee said that a promise had been made.

Job security. Job security was measured using the four-item scale of De Witte (2000). An example item is 'I think I might lose my job in the near future'. Responses ranged from 1 (strongly disagree) to 5 (strongly agree).

Job satisfaction. Job satisfaction was measured with four items, which were developed by Price (1997). A sample item was 'Most days I am enthusiastic about my job'. Responses ranged from 1 = strongly disagree to 5 = strongly agree.

3.3.4. Dependent variables

Employee performance. Employee performance was assessed using six items based on a measure developed by Abramis (1994). An example was 'We now list some questions concerning your last working week. In your own judgement, how well did you fulfil the following tasks ... Perform without mistakes?' The scale of responses ranged from 1 (very badly) to 5 (very well).

Sickness absence. Research on absence suggests that it is the number of incidents of absence rather than the number of days lost that is the best indicator of subjective accounts of absence (Berry et al., 2011). We therefore measured it with a single item asking 'How often have you been absent from work due to your state of health over the last 12 months?' The scale of response ranges from 1 = never; 2 = once; 3 = twice or thrice; 4 = four or five times; and 5 = more than five times.

3.4. Data analysis

Means, standard deviations, internal consistency and correlations among the organizational variables were estimated. We also calculated the percentage of each 'yes' response of each HR practices: training and development (72.5%), provision of merit pay (26.8%), use of performance appraisal (37.5%), interesting/varied jobs (31.7%), an environment free of harassment (21.8%), equal opportunities (44.1%), support with nonwork responsibilities (37.5%) and participation in decision making (67.1%).

In order to test for common method variance effects on our results, we carried out Harman's single-factor test (see Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Hypotheses were tested by

means of path analysis using LISREL 8.80. Since we used continuous observed variables, we performed maximum likelihood (ML) estimations (e.g. Jöreskog, 1993).

Different indices were addressed to test model fit. We had used χ^2 that indicates the probability that the measurement matrix has the form implied by the model. However, this index is sensitive to sample size (e.g. Jöreskog, 1993). Another critical characteristic of the chi-square test statistic is the fact that it evaluates whether or not the analysed model holds exactly in the population. Thus, the use of other fit indices (such as the RMSEA, AGFI, GFI and NNFI) has been suggested as an alternative test of model fit (e.g. Marsh, 1994).

We examined incremental and absolute fit indices: nonnormed fit index (NNFI) (Tucker & Lewis, 1973), comparative fit index (CFI) (Bentler, 1990), goodness-of-fit index (GFI) and adjusted goodness-of-fit index (AGFI), as proposed by Jöreskog and Sörbom (1984). All these indices have a range from 0 to 1 with 0.90 being the recognized cut-off value (West, Finch, & Curran, 1995). Root mean square error of approximation (RMSEA) was examined to synthesize the standardized residuals. RMSEA > 0.10 is generally unacceptable (Steiger, 2000). In addition, we also examined the standardized root mean square residual (SRMR), whose cut-off value is close to 0.08 (Hu & Bentler, 1999).

We applied structural equation modelling (SEM) to test for mediation, as this approach is more suitable for our study than Baron and Kenny's (1986) approach (see James, Mulaik, & Brett, 2006). As recommended by many researchers (e.g. MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002), we tested the significance of the mediated effects as an additional step in the mediation analysis. The empirical critical value for the 0.05 significance level corresponds to 0.97 rather than 1.96, because they use different distributions (further information in MacKinnon et al., 2002).

In order to compare nested models, we computed the Satorra–Bentler scaled chi-square difference test (Satorra & Bentler, 2001). In addition, we compared values of NNFI and CFI to identify any difference between models. Little (1997) considered a difference not larger than 0.05 between NNFI values as negligible. Regarding differences between CFI values and based on the results of simulation work, Cheung and Rensvold (2002) suggested that decreases in fit >0.01 might be important. Chen (2007) suggests that when the RMSEA increases by < 0.015, one can also claim that it supports the most constrained model.

4. Results

Means, standard deviations and correlations are shown in Table 1. Because all our variables were provided by the same source (employees), we carried out Harman's single-factor test using exploratory factor analysis of the variables to check for problems of common method variance. This resulted in eight different

dimensions explaining 64.67% of variance and reducing the likelihood of common method variance. We controlled for the effect of sector and type of contract in the model, but we do not include them in the single-factor test, as they are dummy variables.

Test of the overall model. The hypotheses were tested using a path analysis. As can be observed in Table 2, the hypothesized model (Model 1) did not adequately fit the data ($\chi^2(10) = 69.98$, $p = 0.00$, $\chi^2/df = 7 > 5$). Then, we compared it with other models to check mediating effects (see Table 2) and also, we carefully analysed each model to test partial mediating effects. Doing so, we found that model 8 was significantly different and also fitted the data. ($\chi^2(9) = 32.13$, $p = 0.00$, $\chi^2/df = 3.57 < 5$; RMSEA = 0.056 (0.036–0.078); NNFI = 0.938; CFI = 0.988; GFI = 0.992; AGFI = 0.948 SRMR = 0.025). In fact, we performed χ^2 difference test ($\Delta\chi^2 = 37.85$; $\Delta df = 1$; $p > 0.001$) and the NNFI, CFI and RMSEA values obtained for the proposed model and the model (path: psychological contract performance; model 8) was significantly different ($\Delta NNFI = 0.069$; $\Delta CFI = 0.024$ and RMSEA = 0.03).

Tests of hypotheses. Higher experience of high commitment HR practices was significantly and positively associated with POS (Hypothesis 1 was confirmed), a more fulfilled psychological contract (Hypothesis 2 was confirmed), with greater job security (Hypothesis 3 was confirmed) and with higher job satisfaction (Hypothesis 4 was confirmed). POS, a more fulfilled psychological contract and higher job security were all positively and significantly associated with job satisfaction (Hypotheses 5, 6 and 7 were confirmed). POS, higher psychological contract fulfilment and higher job security all partially but significantly mediated the relationship between high commitment HR practices and job satisfaction (Hypothesis 8 was supported). Job satisfaction was positively and significantly related to employee performance (Hypothesis 9 was supported). Contrary to expectations, there was a direct relationship between fulfilment of the psychological contract and performance; as a result, this relationship was partially rather than fully mediated by job satisfaction. Nevertheless, the relationship between POS, job security and performance was fully mediated by job satisfaction (Hypothesis 10 was therefore only partially confirmed). Job satisfaction was significant and negatively related to sickness absence (Hypothesis 11 was also confirmed). These results, together with percentage of explained variance can be observed in Fig. 2.

For a fuller test of hypothesis 10, we compared models by means of the Satorra–Bentler scaled chi-square difference test. Results showed that model 8 was the preferable one (see Table 2). Moreover, it tested the fully significant mediated effect of job satisfaction for the relationships between: organizational support and performance ($z' = 7.35$), job security and performance ($z' = 4.54$), organizational support and sickness absence ($z' = 2.90$, job security and sickness absence ($z' = 2.48$) and psychological contract and

Table 1
Means, standard deviations and Pearson correlations.

Variables	M	SD	1	2	3	4	5	6	7	8	9
1. Manufacturing	0.31	0.46									
2. Retail/services	0.29	0.46	−0.44**								
3. Type of contract	0.67	0.47	−0.04	−0.11**							
4. HR practices	3.38	1.96	0.12**	0.12**	0.00						
5. Job security	3.92	0.96	0.18**	−0.05	0.38**	0.24**	(0.84)				
6. POS	3.33	0.92	0.20**	0.01	−0.13**	0.48**	0.21**	(0.84)			
7. Psychological contract	4.32	0.52	0.04**	−0.07	−0.06	0.09**	0.09**	0.25**			
8. Job satisfaction	4.00	0.85	0.24**	0.00	−0.11**	0.38**	0.27**	0.61**	0.28**	(0.82)	
9. Employee performance	3.88	0.52	0.10**	0.03	−0.02	0.26**	0.21**	0.33**	0.32**	0.44**	(0.79)
10. Sickness absence	1.76	0.95	0.08*	−0.10**	0.09*	−0.02	0.02	−0.13**	−0.08*	−0.11**	−0.06

Notes: * $p < 0.05$ ** $p < 0.01$; dummy variables were correlated by t-Kendall correlations; Notes: * $p < 0.05$ ** $p < 0.01$. Cronbach's alpha values on the diagonal (where appropriate).

Table 2

Goodness-of-fit indices of the examined models.

	χ^2	df	RMSEA	90% interval RMSEA	NNFI	CFI	GFI	AGFI	SRMR
Model 1	69.98	10	0.086	0.067–0.105	0.869	0.964	0.980	0.909	0.041
Proposed model									
Model 2	75.31	11	0.085	0.067–0.103	0.872	0.961	0.978	0.912	0.043
Plain model (no HR practices)									
Model 3	71.69	9	0.090	0.073–0.111	0.831	0.966	0.982	0.887	0.037
Job security–sickness absence									
Model 4	68.74	9	0.090	0.071–0.11	0.839	0.968	0.982	0.890	0.020
Psychological contract–sickness absence									
Model 5	67.22	9	0.089	0.070–0.11	0.843	0.969	0.983	0.894	0.037
POS–sickness absence									
Model 6	59.92	9	0.083	0.064–0.104	0.862	0.972	0.984	0.904	0.035
Job security–performance									
Model 7	62.57	9	0.086	0.067–0.107	0.853	0.971	0.983	0.897	0.034
POS–performance									
Model 8	32.13	9	0.056	0.036–0.078	0.938	0.988	0.992	0.948	0.025
Psychological contract–performance									

sickness absence ($z' = 2.74$), following MacKinnon et al. (2002). Thus, as noted above, Hypothesis 10 was partially confirmed and Hypothesis 12 was confirmed; job satisfaction fully mediated the relationship between POS, fulfilment of the psychological contract and job security and sickness absence. Fig. 1.

5. Discussion

This study has sought to make several contributions to the literature. First, it adopts an explicitly high commitment approach to HRM in contrast to the dominant approach that focuses on HR practices designed to ensure high performance (Jiang et al., 2012). There is inevitably some overlap between these approaches and this study included items such as training and development and merit pay that are likely to appear in high performance models. However, it included additional items addressing more employee-centred issues such as work–life balance, promotion of equal opportunities and policies to avoid bullying and harassment.

Second, this study has sought to determine the so-called ‘black box’ linking HRM and performance and does so by focusing distinctively on the role of the employment relationship and on a framework linking employee perceptions, attitudes and behaviour of employees. Employees are therefore placed at the centre of the study.

Third, the study utilizes social exchange theory as the main analytic lens through which to explore the employment relationship. Building on signalling theory (Suazo et al. 2009), HR practices are seen as signals of the organizations’ intentions, and it is proposed that the way they are perceived by employees is reflected in key features of the employment relationship including POS, a

fulfilled psychological contract and a sense of job security. These are identified as centrally important issues in building a long-term, high trust employment relationship of the sort that is likely to encourage reciprocation on the part of employees (Guest, 2004). A first stage in this reciprocation is a positive attitudinal reaction, reflected in job satisfaction. The second is reciprocal behaviour in the form of stronger job performance. It is these linkages that are tested with the empirical data and in doing so, we go beyond previous work that examines elements of this model, but does not use the full linkage model and does not focus so clearly on the employment relationship (see, for example, Gould-Williams & Davies, 2007; Hui, Lee, & Rousseau, 2004).

This model was tested and broadly supported. More specifically, more HR practices were associated with higher levels of POS, psychological contract fulfilment and job security. These partially mediated the relationship between HR practices and job satisfaction; job satisfaction, in turn, was associated with higher performance. However, one element of the proposed model was not supported. There was a direct link between a fulfilled psychological contract and performance. A possible explanation for this is that the psychological contract is a particularly powerful example of exchange theory and fulfilment of promises by the organization creates a strong sense of obligation to respond in various ways including higher performance.

The broad support for a high commitment HR approach and for the social exchange focus on the employment relationship has been found in the context of Spain with its high proportion of temporary employees. The correlations in Table 1 give no indication that temporary staff feel particularly disadvantaged; indeed, on some items, they are distinctly more positive than the permanent staff. It

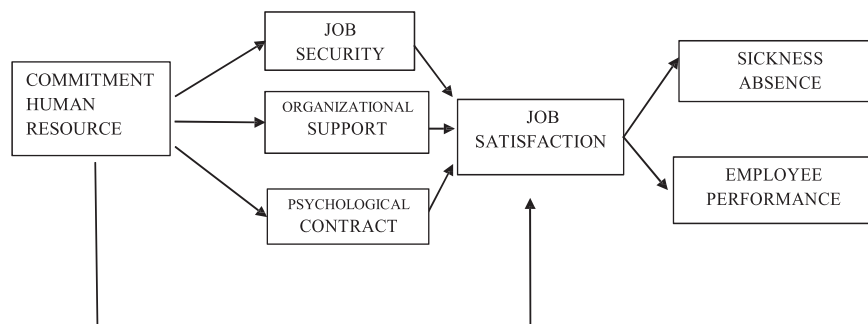
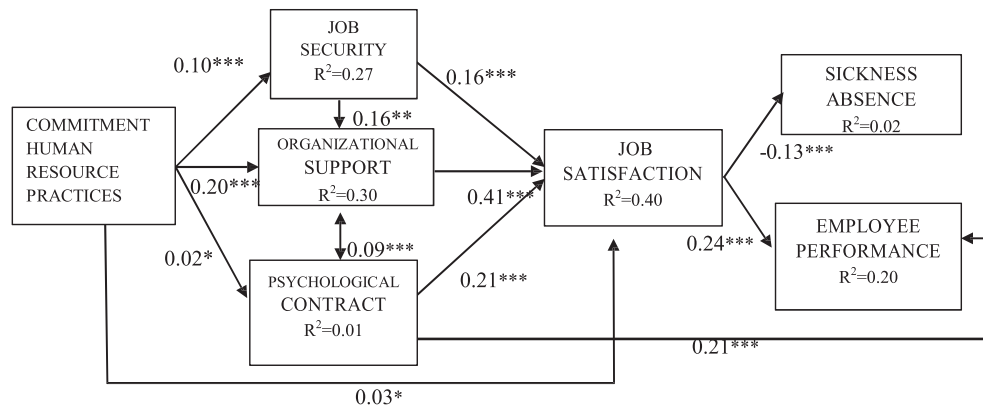


Fig. 1. Hypothesized model.



Notes: * $p < 0.10$ ** $p < 0.05$ *** $p < 0.01$; control variables: type of contract and sector.

Fig. 2. Structural Equation Modelling outcomes.

is also notable in the same table that there are differences across the sectors. Future research should therefore take account of sectoral factors in exploring both the adoption and impact of high commitment HR practices.

Overall, the findings lend support to the argument that a high commitment approach to HRM built around a positive employment relationship and a strong social exchange can explain significant variations in employee satisfaction, employee performance and absence. The link to sickness absence is particularly interesting as previous research has generally revealed only very weak associations between satisfaction and absence (Johns, 1997) and our question asked about sickness absence rather than absence due to all causes, which might often provide a better indicator of felt obligation or motivation to attend.

6. Limitations and further research

Although this study outlines and explores a novel approach to high commitment HRM, it has a number of weaknesses that might be addressed in future research. First, because we asked each employee about his/her perceptions, attitudes and behaviours to test an implied causal chain, we used questionnaires to collect all our data, raising possible problems of common method variance. In order to show discriminant validity, we performed Harman's single-factor test. In addition, common method variance is seldom a very severe issue to invalidate research findings (e.g. Doty & Glick, 1998). Moreover, Spector (2006) argued that the seemingly automatic criticism of cross-sectional self-report data as being inflated is simply unfounded. If common method variance were a serious problem as some argue, then we should expect to see all variables measured with the same self-report survey exhibiting systematically inflated correlations. In our individual-level data, however, this was not the case. Nevertheless, we recognize that common method variance is a potential limitation and that, allied to this, collecting performance data through self-report can risk a positive bias in responses. We therefore suggest that future research should ideally use multiple sources of information. HR practices could be collected from managers, although care should be taken to allow for overstating their implementation. Performance data could be collected from supervisors, although the distribution of ratings will often be highly skewed. In addition, absence data could be collected from organizational records.

Second, our study was cross-sectional, limiting the ability to establish causality. Our model was therefore based on theoretical assumptions derived from social exchange theory, and this resulted, for example, in the logic of assuming in this case that

satisfaction precedes performance. Therefore, we suggest that future research should replicate our study with longitudinal data to establish the causal ordering of the data. However, it should be noted that even with longitudinal data, it can be difficult to establish causality unless there is information about when HR practices were introduced.

Third, we chose to use absence as an outcome measure, because it can serve as an indicator of both performance and well-being. Future research may wish to explore alternative individual-level performance-related indicators, but there are few obvious candidates beyond organizational citizenship behaviour and labour turnover and the latter can require data collection over quite long periods.

Finally, we deliberately set out to explore links between HRM and performance at the individual level. A fuller multilevel analysis to account for organizational-level factors and organizationally relevant outcomes would enrich our understanding of the impact of the type of high commitment approach we have explored in this study.

7. Conclusion

In conclusion, our study has tested and found support for a model of high commitment HRM that is positively associated with key features of the employment relationship at the individual level and which, within the framework of exchange theory, are associated with higher employee job performance. In reporting these findings, we go beyond the traditional approach to the study of the relationship between HRM and performance to focus on a specific and rather different process, whereby HRM is linked to performance.

References

- Abramson, D. J. (1994). Relationship of job stressors to job performance: linear or inverted-u? *Psychological Reports*, 75, 547–558.
- Allen, D. G., Shore, L. M., & Griffeth, R. W. (2003). The role of perceived organizational support and supportive human resource practices in the turnover process. *Journal of Management*, 29(1), 99.
- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. (2000). *Manufacturing Advantage. Why high performance work systems pay off*. Ithaca: Cornell University Press.
- Aselage, J., & Eisenberger, R. (2003). Perceived organizational support and psychological contracts: a theoretical integration. *Journal of Organizational Behavior* 24, 5, 491.
- Baron, R. M., & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173–1182.
- Becker, B., & Huselid, M. (1998). High performance work systems and firm performance: a synthesis of research and managerial implications. In K. Rowland, & G. Ferris (Eds.), *Research in personnel and human resource management* (pp.

- 53–101). Greenwich, CT: JAI Press.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*(2), 238.
- Berry, C., Lelchook, A., & Clark, M. (2012). A meta-analysis of the interrelationships between employee lateness, absenteeism, and turnover: implications for models of withdrawal behaviour. *Journal of Organizational Behavior*, *33*, 678–699.
- Blau, P. (1964). *Exchange and power in social life*. New York: Wiley.
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal*, *15*(3), 67–94.
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-firm performance linkages: the role of the “strength” of the HRM system. *Academy of Management Review*, *29*(2), 203–221.
- Boxall, P., & Macky, K. (2009). Research and theory on high performance work systems: progressing the high involvement stream. *Human Resource Management Journal*, *19*(1), 3–23.
- Buitendach, J. H., & De Witte, H. (2005). Job insecurity, extrinsic and intrinsic job satisfaction and affective organisational commitment of maintenance workers in a parastatal. *South African Journal of Business Management*, *36*(2), 27.
- Cappelli, P. (1999). *The new deal at Work: Managing the market driven workforce*. Boston, MA: Harvard Business School Press.
- Chadwick-Jones, J. K., Brown, C. A., & Nicholson, N. (1982). *The social psychology of absenteeism*. New York: Praeger.
- Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling*, *14*, 464–504.
- Chen, G. H. L., & Chan, D. K.-S. (2007). Who suffers more from job insecurity? a meta-analytic review. *Applied Psychology: An International Review*, *57*(2), 272–303.
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*, *9*, 233–255.
- Combs, J. G., Liu, Y., Hall, A. T., & Ketchen, D. J. (2006). How much do high performance work practices matter? A meta-analysis of their effects on organizational performance. *Personnel Psychology*, *59*, 501–528.
- Conway, N., & Briner, R. (2005). *Understanding psychological contracts at work: A critical evaluation of theory and research*. Oxford: Oxford University Press.
- Coyle-Shapiro, J., & Conway, N. (2004). The employment relationship through the lens of social exchange. In J. Coyle-Shapiro, L. Shore, S. Taylor, & L. Tetrick (Eds.), *The employment relationship* (pp. 5–28). Oxford: Oxford University Press.
- De Witte, H. (2000). Arbeidsethiek en jobonzekerheid: meting en gevolgen voor welzijn, tevredenheid en inzet op het werk. In R. Bouwen, K. De Witte, H. De Witte, & T. Taillieu (Eds.), *Van groep naar gemeenschap. Liber amicorum prof. dr. leo lagrou* (pp. 325–350). Leuven: Garant.
- Doty, D. H., & Glick, W. H. (1998). Common method bias: does common methods variance really bias results? *Organizational Research Methods*, *1*, 374–406.
- Eisenberger, R., Fasolo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology*, *75*(1), 51.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, *71*(3), 500.
- Estreder, Y., & Adell, M. (2005). Satisfacció i rendiment dels docents als centres educatius de la Comunitat Valenciana. *Anuari de la Societat Valenciana de Psicologia*, *10*(2), 61–73.
- Garrido, M. J., Pérez, P., & Antón, C. (2005). Determinants of sales manager job satisfaction: an analysis of Spanish industrial firms. *International Journal of Human Resource Management*, *16*, 1934–1954.
- Godard, J. (2004). A critical assessment of the high performance paradigm. *British Journal of Industrial Relations*, *42*(2), 439–478.
- Gould-Williams, J., & Davies, F. (2007). Using social exchange theory to predict the effects of HRM practice on employee outcomes. *Public Management Review*, *7*(1), 1–24.
- Gouldner, A. W. (1960). The norm of reciprocity: a preliminary statement. *American Sociological Review*, *25*, 161–178.
- Guest, D. E. (1997). Human resource management and performance: a review and research agenda. *International Journal of Human Resource Management*, *8*(3), 263–276.
- Guest, D. E. (2000). Human resource management and industrial relations. In J. Storey (Ed.), *Critical perspectives on human resource management*. London: Routledge.
- Guest, D. E. (2004). The psychology of the employment relationship: an analysis based on the psychological contract. *Applied Psychology: An International Review*, *53*(4), 541–555.
- Guest, D. E., & Conway, N. (1999). Peering into the black hole: the downside of the new employment relations in the UK. *British Journal of Industrial Relations*, *37*(3), 367–389.
- Guest, D. E., & Conway, N. (2002). Communicating the psychological contract: an employer perspective. *Human Resource Management Journal*, *12*(2), 22–38.
- Hackett, R. D., & Guion, R. M. (1985). A reevaluation of the absenteeism – job satisfaction relationship. *Organizational Behavior and Human Decision Processes*, *35*, 340–381.
- Harrison, D. A., Newman, D. A., & Roth, P. L. (2006). How important are job attitudes? meta-analytic comparisons of integrative behavioral outcomes and time sequences. *Academy of Management Journal*, *49*(2), 305.
- Hellgren, J., Sverke, M., & Isaksson, K. (1999). A two-dimensional approach to job insecurity: consequences for employee attitudes and well-being. *European Journal of Work and Organizational Psychology*, *8*(179), 195.
- Hu, L., & Bentler, M. (1999). Cut-off criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*, 1–55.
- Hui, C., Lee, C., & Rousseau, D. (2004). Psychological contract and organizational citizenship behaviour in China: investigating generalizability and instrumentality. *Journal of Applied Psychology*, *89*(2), 311–321.
- Huselid, M. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal*, *38*(3), 635–672.
- Iaffaldano, M. T., & Muchinsky, P. M. (1985). Job satisfaction and job performance: a meta-analysis. *Psychological Bulletin*, *97*, 251–273.
- Isaksson, K., Bernhard, C., Claes, R., De Witte, H., Guest, D., & Krausz, M. (2003). *Employment contracts and psychological contracts in Europe: Results from a pilot study*. Stockholm: SALTSA.
- James, L. R., Mulaik, S. A., & Brett, J. M. (2006). A tale of two methods. *Organizational Research Methods*, *9*(2), 233–244.
- Jiang, K., Lepak, D., Hu, J., & Baer, J. (2012). How does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms. *Academy of Management Journal*, *55*(6), 1264–1294.
- Johns, G. (1997). Contemporary research on absence from work: correlates, causes and consequences. *International Review of Industrial and Organizational Psychology*, *12*, 115–173.
- Jöreskog, K. G. (1993). Testing structural equation models. In K. A. Bollen, & J. S. Long (Eds.), *Testing structural equation models* (pp. 294–316). Newbury, CA: Sage.
- Jöreskog, K. G., & Sörbom, D. (1984). *LISREL VI*. Chicago: International Educational Services.
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction-job performance relationship: a qualitative and quantitative review. *Psychological Bulletin*, *127*(3), 376.
- Kammeyer-Mueller, J., & Liao, H. (2006). Workforce reduction and job-seeker attraction: examining job seekers' reactions to firm workforce-reduction policies. *Human Resource Management*, *45*(4), 585.
- Kehoe, R., & Wright, P. (2010). The impact of high performance human resource practices on employees' attitudes and behaviors. *Journal of Management*, *39*(2), 366–391.
- Koslowsky, M. (2009). A multi-level model of withdrawal: integrating and synthesizing theory and findings. *Human Resource Management Review*, *19*, 283–303.
- Little, T. D. (1997). Mean and covariance structures (MACS) analyses of cross-cultural data: practical and theoretical issues. *Multivariate Behavioral Research*, *32*, 53–76.
- Liu, W. (2004). *Perceived organisational support: Linking human resource management practices with important work outcomes*. Doctoral Dissertation. College Park: University of Maryland.
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variables effects. *Psychological Methods*, *7*, 83–104.
- Marsh, H. W. (1994). Confirmatory factor analysis models of factorial invariance: a multifaceted approach. *Structural Equation Modeling*, *1*, 5–34.
- Nishii, L. H., Lepak, D. P., & Schneider, B. (2008). Employee attributions of the “why” of HR practices: their effects on employee attitudes and behaviors, and customer satisfaction. *Personnel Psychology*, *61*, 503–545.
- Pfeffer, J. (1998). *The human equation*. Boston, Mass: Harvard Business School Press.
- Piening, E., Baluch, A., & Ridder, H.-G. (2014). Mind the intended-implemented gap: understanding employees' perceptions of HRM. *Human Resource Management*, *53*(4), 545–567.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *88*, 879–903.
- Price, J. L. (1997). Handbook of organisational measurement. *International Journal of Manpower*, *18*(4_5_6), 305–558.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organisational support: a review of the literature. *Journal of Applied Psychology*, *87*, 698–714.
- Roelen, C. A., Koopmans, P. C., Notenbomer, A., & Groothoff, J. W. (2008). Job satisfaction and absenteeism: a questionnaire survey. *Occupational Medicine*, *58*, 425–430.
- Rousseau, D. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, *2*, 121–139.
- Rousseau, D. M. (1995). *Psychological contracts in organizations*. Thousand Oaks, CA: Sage.
- Rousseau, D. M. (2005). *I-deals, idiosyncratic deals employees bargain for themselves*. New York: M. E. Sharpe.
- Rousseau, D. M., & Greller, M. M. (1994). Human resource practices: administrative contract makers. *Human Resource Management*, *33*, 385–401.
- Satorra, A., & Bentler, P. M. (2001). A scaled difference chi-square test statistic for moment structure analysis. *Psychometrika*, *66*, 507–514.
- Schneider, B., Hanges, P. J., Smith, D. B., & Salvaggio, A. N. (2003). Which comes first: employee attitudes or organizational financial and market performance? *Journal of Applied Psychology*, *88*, 836–851.
- Spector, P. (2006). Method variance in organizational research: truth or urban legend? *Organizational Research Methods*, *9*, 221–232.
- Steiger, J. H. (2000). Point estimation, hypothesis testing, and interval estimation using the RMSEA: some comments and a reply to Hayduch and Glaser. *Structural Equation Modeling*, *7*(2), 149–162.
- Suazo, M., Martinez, P., & Sandoval, R. (2009). Creating psychological and legal

- contracts through human resource practices: a signalling theory perspective. *Human Resource Management Review*, 19(2), 154–166.
- Subramony, M. (2009). A meta-analytic investigation of the relationship between HRM bundles and firm performance. *Human Resource Management*, 48, 745–768.
- Sverke, M., Hellgren, J., & Näswall, K. (2002). No security: a meta-analysis and review of job insecurity and its consequences. *Journal of Occupational Health Psychology*, 7(3), 242.
- Tett, R. P., & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: path analyses based on meta-analytic findings. *Personnel Psychology*, 46, 259–293.
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38, 1–10.
- Turnley, W. H., & Feldman, D. C. (1999). The impact of psychological contract violations on exit, voice, loyalty and neglect. *Human Relations*, 52(7), 895–922.
- Van de Voorde, K., & Beijer, S. (2015). The role of employee HR attributions in the relationship between high performance work systems and employee outcomes. *Human Resource Management Journal*, 25(1), 62–78.
- Van de Voorde, K., Paauwe, J., & Veldhoven, M. (2012). Employee well-being and the HRM-organizational performance relationship: a review of quantitative studies. *International Journal of Management Reviews*, 14, 391–407.
- Walton, R. E. (1985). From control to commitment in the workplace. *Harvard Business Review*, 77–84. March-April.
- West, S. G., Finch, J. F., & Curran, P. J. (1995). Structural equation models with nonnormal variables: problems and remedies. In R. H. Hoyle (Ed.), *Structural equation modelling* (pp. 56–75). Thousand Oaks: SAGE.
- Whitener, E. M. (2001). Do “high commitment” human resource practices affect employee commitment? A cross-level analysis using hierarchical linear modelling. *Journal of Management*, 27(5), 515.
- Wood, S., & Albanese, M. (1995). Can we speak of a high commitment management on the shop floor? *Journal of Management Studies*, 32(2), 215–247.
- Wright, P., & Boswell, W. (2002). Desegregating HRM: a review and synthesis of micro and macro human resource management research. *Journal of Management*, 28, 247–276.
- Wright, P. M., & Gardner, T. (2003). The human resource-firm performance relationship: methodological and theoretical challenges. In D. Holman, T. Wall, C. Clegg, P. Sparrow, & A. Howard (Eds.), *The new workplace: A guide to the human impact of modern working practices* (pp. 311–330). Chichester: John Wiley & Sons.
- Zhao, H., Wayne, S., Glibkowski, B., & Bravo, J. (2007). The impact of psychological contract breach on work-related outcomes: a meta-analysis. *Personnel Psychology*, 60(3), 647–680.