

Exploring the HRM-performance relationship: the role of creativity climate and strategy

Dr. Margaret Heffernan

Dublin City University Business School
Dublin City University
Glasnevin
Dublin 9
Ireland

Email: margaret.heffernan@dcu.ie

Dr. Brian Harney

Dublin City University Business School
Dublin City University
Glasnevin
Dublin 9
Ireland

Email: brian.harney@dcu.ie

Dr. Kenneth Cafferkey

Graduate School of Business
Universiti Tun Abdul Razak
Jalan Tangsi
50480 Kuala Lumpur.
Malaysia

Email: cafferkey@unirazak.edu.my

Professor Tony Dundon

[Alliance Manchester Business School](#)

The University of Manchester
Booth Street East
Manchester M15 6PB
United Kingdom

Email: tony.dundon@manchester.ac.uk

Correspondence concerning this article should be addressed to Margaret Heffernan, DCU Business School, Dublin City University, Glasnevin, Dublin 9, Ireland. E-mail: margaret.heffernan@dcu.ie

Exploring the HRM-performance relationship: the role of creativity climate and strategy

Purpose

While an established stream of research evidence has demonstrated that Human Resource Management (HRM) is positively related to organisational performance, explanations of this relationship remain underdeveloped while performance has been considered in a narrow fashion. Exploring the relevant but often neglected impact of creativity climate, this paper examines key processes (mediation and moderation) linking high-performance human resource practices with a broad range of organisational performance measures.

Design/methodology/approach

The paper draws on a People Management Survey of 169 HR managers from top performing firms in the Republic of Ireland.

Findings

The findings provide general support for the role of creativity climate as a key mediator in the HRM-performance relationship, while strategic orientation was found to play a significant role in moderating the impact between HRM and employee performance but not HPWS, HR performance and organisational performance.

Practical implications

HPWS are found to directly impact a range of organisational performance outcomes. Creativity climate provides an understanding of the mechanisms through which such impact takes effect. Organisations should develop a clear and consistent general HR philosophy to realise HR and organisational performance, but also pay due attention to the key contingencies in terms of nature of employee desired behaviours.

Originality/value

The paper offers a more intricate understanding of the key factors shaping both the operation and impact of the HRM-performance relationship. Purposeful consideration of multi-faceted dimensions of organisational outcomes enabled a more nuanced and considered explication of the impact of HPWS.

Article Classification:

Research paper

Introduction

Over time, competitive forces have changed the nature and purpose of HRM. Research has gradually moved away from an exclusive focus on HRM content and static notions of positioning towards HRM processes and dynamic manoeuvring (Chow, 2012; Patel *et al.*, 2013). It is increasingly acknowledged that the basis of long-term organisational success resides in the ability to foster creativity and realise a positive working environment (Anderson *et al.*, 2014). By affording employee autonomy, encouraging risk taking, and rewarding creative solutions organisations are better positioned to anticipate market trends and respond to customer needs (Amabile *et al.*, 1996; Dixon *et al.*, 2014). It follows that those organisations which excel will be those which readily harness the ideas and suggestions of employees by actively encouraging and rewarding creative performance behaviours (Birkinshaw and Duke, 2013; Montag *et al.*, 2012).

While extant HRM research has progressed to substantively demonstrate the impact HRM can have on financial and operational dimensions of organisational performance (Combs *et al.*, 2006), the relationship between HRM, creativity and multifaceted performance outcomes remains underexplored (Boxall *et al.*, 2011; Cooke and Saini 2010). Reflective of this, meta-analysis which has begun to unearth the ‘myriad of mechanisms’ underpinning the HRM-performance relationship (Patel *et al.*, 2013: 1424) has likewise undervalued the role of HRM in fostering the creativity deemed to be essential for competitive success. This static outlook offers limited potential to capture the critical role of adaptive and creative capabilities (Wei and Lau, 2010) as it privileges the exploitation of current advantages as opposed to the creation of advantages for tomorrow. In order to address such limitations, this paper takes a creativity perspective to examine key processes (mediation and moderation) linking high-performance human resources practices and performance (cf. Sun *et al.*, 2007). Performance as understood here is multifaceted, extending beyond simple organisational performance of today to capture

HR performance and employee performance to determine success tomorrow. In exploring these relationships the paper elucidates the role of creativity climate as a critical intermediary between HRM practices and a range of organisational outcomes. Specifically, the focus is on the potential of HRM to foster creative performance behaviours which subsequently deliver beneficial organisational outcomes. While climate has proven a useful concept in HRM research e.g. service climate (Liao *et al.*, 2009), trust and co-operation (Collins and Smith, 2006) facet specific climate of creativity has hitherto not been deployed in the service of examining the HRM-performance relationship. This exploration of creativity climate to multiple performance outcomes, coupled with the addition of competitive strategy serves to answer recent calls for creativity and boundary conditions to be (re)considered in HRM-performance studies (Chadwick *et al.*, 2013; Jackson *et al.*, 2014; Jiang *et al.*, 2013, deLeede and Looise, 2005).

Following a brief review of HRM-performance research, the paper highlights the importance of ‘creativity climate’ as a missing explanatory process contributing to organisational performance outcomes. We then examine the potential moderating role of organisational strategy. The research methodology and measurement scales are explained, followed by the analysis and results. The significant findings are then discussed coupled with opportunities for future research.

Theoretical Background and Hypotheses

HPWS and organisational outcomes

The past two decades have produced numerous contributions which claim to demonstrate that sophisticated HRM practices are positively related to organisational performance (Jiang *et al.*, 2013; Posthuma *et al.*, 2013). We use the term High Performance

Work Systems (HPWS), although, irrespective of the precise label that is applied there is a broad consensus that HRM impacts upon organisational performance by encouraging employee autonomy, developing skills and providing an opportunity to perform (Datta *et al.*, 2005; Gittel *et al.*, 2010). The analytical crux of this argument holds that HR practices operate as a systematic bundle which encourages employees to exert discretionary behaviour. This, in turn, results in firm level benefits in terms of enhanced performance outcomes (Guthrie *et al.*, 2009; Combs *et al.*, 2006). The HPWS debate has consistently advocated that mutually reinforcing (Dyer and Reeves, 1995: 657) or complementary HR practices (Laursen and Foss, 2003) would result in superior performance than if practices were applied in isolation (MacDuffie, 1995). The contention posits that a '*multiplicative rather than additive*' effect takes place where the total impact is greater than the sum of the parts (Guest, 1997: 271). The cumulative effect of HR practices, in turn, relate to outcomes such as labour productivity and turnover rates (Arthur, 1994; Mac Duffie, 1995; Guthrie, 2001) leading to firm level performance measures (Huselid, 1995; Patterson *et al.*, 1997). However, While the direct relationship between HRM and narrow financial performance has been well established the relationship remains distal. Much less explored are the relationship between HRM and more multi-faceted performance dimensions including HR performance and employee outcomes (Wright and Nishii, 2007; Delaney and Huselid, 1996). There is an inferred recognition that financial indicators (profits, sales, market share) are the best *indicators* of performance (Boselie *et al.*, 2005). Stakeholder perspectives (Beer *et al.*, 1984) are less prevalent in studies, potentially due to the subjective nature of stakeholder variables i.e. quality of staff (Gratton *et al.*, 1999), organisational citizenship behaviour (Truss, 2001), morale (Youndt *et al.*, 1996) or customer satisfaction (Rogg *et al.*, 2001). What is important to note is that ideals of HRM such as legitimacy, equality, justice (Boxall and Purcell, 2003) are not necessarily intended to influence financial outcomes (for review see Paauwe and Boselie, 2005). Boxall and Macky

(2014) go further and suggest that some HR has neutral or no effect on performance as it was never designed or intended to influence performance. Extant research largely, and naively, assumes that the sole purpose of HR is simply to influence performance outcomes (Author Ref Removed; Paauwe, 2004). Purcell and Kinnie (2007: 536) state that financial performance data is too far removed from HRM influence, whereas Guest (1997) suggests that HRM outcomes are more aligned to HRM activities than to organisational outcomes. Harter et al. (2002) supports this assertion that HRM influences HR activities, with less direct impact on organisational outcomes and even less again on financial measures. Through rank order correlations the evidence offers support for the proximal versus distal outcomes debate. It could be argued, therefore, that a valid approach is to adopt a more systematic method to try and capture the mediating patterns of outcome influence: specific HPWS for specific work outcomes (from proximal to distal).

Consequently, our first hypothesis explores the relationship between HPWS and a range of performance measures. In so doing we extend traditional understanding of HPWS to include work life balance which has been found to contribute to effort-reward fairness in determining the likelihood of positive outcomes (Janssen, 2000).

Hypothesis 1: HPWS are positively associated with (a) employee performance, (b) HR performance, and (c) organisational performance

The mediating influence of creativity climate on the HPWS-Performance relationship

While the establishment of a direct relationship between HRM and performance outcomes is necessary, it is not sufficient to enhance understanding. It is important to explicate the mechanisms through which HRM practices work to impact different performance outcomes

(Camps and Luna-Arocas, 2012; Jackson *et al.*, 2014; Jiang *et al.*, 2013). Bowen and Ostroff (2004) provided a strong conceptual foundation for this task moving the focus away from the content of HR practices per se to the purposes they actually serve. A range of mediators have been proposed, with much work focusing on the way in which HR impacts upon employee's ability, motivation and opportunity (AMO) to perform (see Jiang *et al.*, 2013: for an overview). At a more aggregate level, it has been highlighted that the climate strength is an important mediator between the HR system and firm performance (Bowen and Ostroff, 2004). Jiang *et al.* note that climate can "further influence employee attitudes and behaviours and subsequent firm performance" (2013: 1455). Research has illustrated the positive role of climate in enhancing the impact of HRM, including work climates which emphasize team-orientation and human capital development (Gelade and Ivery, 2003; Patel and Cardon, 2010; Wei *et al.*, 2012). Taking a relational perspective, Sun *et al.*, (2007) found that a supportive work environment facilitates the exchange or sharing of tacit knowledge leading to productivity improvements. However, while Neal *et al.*, (2005) found that a human-capital-enhancing HR system was positively associated with organisational climate and this in turn was positively associated with subsequent productivity, they did not find support for mediation.

Much less explored with respect to climate, are how HRM interventions may foster the type of employee creativity, involvement and risk taking behaviours that are increasingly deemed central for competitive survival (Amabile *et al.*, 1996, Anderson *et al.*, 2014). If, as is frequently asserted, sustained advantage involves 'creating new market space' and a different 'pattern of strategic thinking' (Kim and Mauborgne, 2004) then HRM practices should do more than simply reinforce the existing modes of employee behaviour and thinking. While numerous facets of climate may exist including general psychological climate (James *et al.*, 1990), employment relations climate (Author Ref Removed), and service climate (Chuang and Liao,

2010) we propose creativity as a ‘facet specific’ climate particularly significant to the intention and success HRM interventions (Rousseau, 1988).

Creativity climate was selected as the facet specific climate due to increased emphasis on how HRM stimulates process innovation and creativity (Shipton *et al.*, 2006; Michie and Sheenan 2003; Searle and Ball, 2003) and how ones environment assists in the creatively process (Amabile *et al.*, 1996). However, the HRM implications for such a climate have never fully been explored explicitly. Bowen and Ostroff (2004: 205) state ‘*HRM practices and HRM system will play a critical role in determining climate perceptions*’. Consequently the impact of HRM on climate and resultant employee and organisational outcomes is not to be underestimated. Increasingly researchers have looked towards social and organisational influences on behaviour to explain performance (Patterson *et al.*, 2005:379). Management therefore should place an emphasis on an OC that fosters positive employee outcomes (Ahmad and Schroeder, 2003). Extant research suggests that climate predicts job satisfaction (Pritchard and Karasick, 1973; Day and Bedeian, 1991) organisational commitment (Saunders *et al.*, 2008; Organ, 1988; Eisenberger, 1990; Wayne *et al.*, 1997) HRM performance (Knight- Turvey, 2005; Bowen and Ostroff, 2004; Delaney and Huselid, 1996) and finally organisational performance (Neal *et al.*, 2005; Collins and Smith, 2006; Kangis *et al.*, 2000; Ostroff and Schmitt, 1993).

HRM bundles are likely not only to develop individual motivations and opportunities to perform better, as per the AMO rubric, but also to engender a more cohesive pattern of interaction and communication amongst employees (Author Ref Removed). From this perspective HRM not only enhances the human capital pool but may also change the nature of employment relationships (Evans and Davis, 2005). Given HRM’s direct impact on employees

it would be expected that HRM would have a significant role to play as a more proximal value creating system developing and fostering a creativity climate (Becker and Huselid, 2006). Extant research has not purposefully deployed an assessment of creativity climate as a necessary intervening factor between the HRM system and performance outcomes, while the HR determinants affecting climate of creativity have also not been fully explored. Consequently, focusing on HRM's ability to foster a creativity climate across a more general population of firms and examining the potential connections to performance gains is an important requirement (Hayton, 2005) particularly as the HR-Climate-Outcomes thesis has yet to be fully established (Neal *et al.*, 2005; Gelade and Ivery, 2003). Moreover, a more conceptually balanced approach is warranted (Rogg *et al.*, 2001: 444) to show logical progression to performance firstly through employee outcomes (Gould-Williams, 2007; Knight-Turvey, 2005) onto a host of organisational outcomes.

Hypothesis 2: Creativity climate positively mediates the relationship between HPWS and (a) employee performance, (b) HR performance and (c) organisational performance

The moderating role of strategy

It has been argued that organisations whose HR practices match their business strategies will outperform than those that do not (Bird and Beechler, 1995). According to contingency theory, an organisation's strategy moderates the effect of human resource practices on firm performance (Schuler and Jackson, 1987). Although strategic orientation was at the forefront of the emergence of HRM, it has since been downplayed by attempts to demonstrate the unilinear relationship between HRM and performance (Batt and Banerjee, 2012; Becker and Huselid, 2006). As an example, less than 10 percent of the 154 Strategic HRM studies reviewed by Jackson *et al.*, (2014: : 25) explored whether strategy moderated the effects of HRM on

various outcomes. Similarly, a meta-analysis by Subramony (2009) reports a dearth of studies examining the boundary conditions framing the HRM-Performance relationship (notable exceptions include studies by Datta *et al.*, (2005) and Chadwick *et al.*, (2013)). The significance of such research is noted by Youndt *et al.*, (1996: 837) who posit that an organization's strategic posture either augments or diminishes the impact of HR practices on performance'.

In line with the propositions of Porter (1985) and the resource-based view of the firm (Barney, 1991) it is posited that HRM will contribute more to performance outcomes where an organisation pursues a differentiation strategy. Differentiation strategies are characterized as having a long-term orientation with an extensive reliance on the workforce to improve quality and maintain flexibility (Shore and Shore, 1995). Successful differentiation is founded upon commitment associated with employee involvement in decisions, wide job definitions, and extensive investment in employee skill development. Guthrie *et al.*, (2002) found that where organisations pursued a differentiation strategy, greater use of HRM was associated with increased productivity. Other studies have shown that differentiation strategies are associated with the use of HPWS and employee centered philosophies (Chen *et al.*, 2005; Lepak *et al.*, 2007). In terms of employees, research has shown that HRM systems were more effective in reducing voluntary turnover in firms pursuing differentiation strategies (Chow and Liu, 2009). Arguably those competitive strategies founded upon innovation or unique product or service features are more likely to be reliant upon employee capabilities, discretionary effort, and a higher level of motivation (Guthrie *et al.*, 2002; Youndt *et al.*, 1996; Neal *et al.*, 2005). Those organisations following a strategy of differentiation are more likely to have a stronger association with employee creativity due to an emphasis on risk taking, exploratory learning, employee involvement and a quest by HR to encourage new and different ways of working (Sun *et al.*, 2007, Shipton *et al.*, 2006).

In contrast, a cost leadership strategy is associated with mass production methods and emphasizes cost reduction in every activity across the value chain (Wang and Verma, 2012). Unlike a differentiation strategy, cost reduction expects minimum commitment from employees, but nonetheless deploys a high utilization of their skill or effort. Following Arthur (1992), in cost leadership the emphasis is on transactional relations and control. Employers perceive employees as costs to control; this implies narrowly defined jobs, close supervision, and limited investment in training or involvement (Bamberger and Meshoulam, 2000). This matches an approach whereby employees are not considered a source of competitive advantage as they perform a narrow range of activities, deploying a skill set that is typically more readily available in the external labour market. In this instance organisations are focused on short term activities and objectives and are unlikely to require specific creative behaviours from their employees (Bornay-Barrachina *et al.*, 2012). The strategic orientation of the firm therefore bears on the likely effectiveness and impact of practices. Drawing upon a behavioural perspective, Schuler and Jackson (1987) provided a rationale for such distinctions by outlining the role behaviours expected of different strategy types. Thus while some have suggested a universal impact of HPWS irrespective of strategic orientation (Huselid, 1995) others propose that HPWS may actually hinder this relationship in the context of a low cost strategy provision (Cooke and Saini, 2010). Nonetheless, it is still largely assumed rather than evidenced that the outcomes of HPWS are consistent with the demands and strategy of organisations (Jackson *et al.*, 2014, Jiang *et al.*, 2013). We therefore examine whether the influence of HPWS on multiple outcomes is moderated by a firms competitive strategy as follows

Hypothesis 3: Differentiation strategy moderates the relationship between HPWS and (a) employee performance, (b) HR performance and (c) organisational performance in such a way that it is more positive for higher than for lower levels of differentiation strategy.

Hypothesis 4: Low cost strategy moderates the relationship between HPWS and (a) employee performance, (b) HR performance and (c) organisational performance in such a way that it is more negative for higher than for lower levels of low cost strategy.

Overall, as depicted in Figure 1, we examine creativity climate as a mediator to better explicate how the HRM-performance link operates, while also exploring strategic orientation as a key contingencies shaping the HRM-performance relationship.

Insert Figure 1 about here

Methods

Sample and procedures

In order to examine the proposed hypotheses this paper draws on Irish data derived from the ‘People Management Survey’ (PMI). This national survey was administered in 2008 using a stratified sampling technique. Our main criterion was that organisations in the sample were deemed to be ‘high performing’ as measured by profit and financial turnover reported by the *Irish Times Business and Finance Top 1000* companies, *Kompass Business Directory*, and the *Top Places to Work Survey*. This gave a target population of 2000 firms. The research design then ensured a representative set of Irish-based operations across multiple sectors of the economy. After pilot testing, 1,995 surveys were administered in English to senior HR managers or senior manager with responsibility for HR issues. A total of 169 usable surveys were returned, giving a response rate of 8.5 percent. Although low the response rate is comparable with other similar studies (Becker and Huselid, 1998). Coupled with this the research focused specifically on high performing firms where the intention was to invert the question and look at the actual HR policies and practices of top performing organisations. As

per Armstrong and Overton (1977) steps were taken to check non-response bias; a one-way analysis of variance (ANOVA) for firm size across early and late respondents yielded insignificant F-values of .91 for number of employees and 2.8 for industry. The average organisation had 379 employees with an average organisation age of 37 years old. In terms of ownership 66.3 percent were Irish owned, 14.1 percent US owned, 14.7 European owned (non-Irish), and others represented 4.9 percent.

Measures

High performance work systems:

In terms of deriving the list of practices to include in the survey we drew on Huselid's (1995) seminal work as a base. These practices were then cross-checked against other empirical studies (Arthur, 1994; Guest *et al.*, 2000; Guthrie, 2001) with the research including those practices deemed absent from previous research, specifically employment security, diversity and work-life balance (Boselie *et al.*, 2005). Having identified the key HR practices, we deliberately utilised measures that had been validated in previous research (Guthrie, 2001). In order to capture breadth and depth of practices we followed Jackson *et al.*, (1989) and Guthrie *et al.*, (2009) and distinguish between HRM practices deployed at a *managerial/professional employees* (i.e. executives, managers, supervisors, professional/technical), and *administrative/non-managerial employees* (i.e. production, maintenance, service, clerical employees). Research which focuses on multiple categories helps to overcome the limitation of studies which treat all employee groupings equally. Rather than cluster or categorise practices into discrete typologies or would-be-lists of so-called best practices (Pfeffer, 1998), we measured each firm's use of HPWS on a continuous scale by creating a HPWS index. This aligns with our theoretic exposition in allowing us to treat the system as a whole and thereby contributed to parsimony of analysis (Chow *et al.*, 2013; Neal *et al.*, 2005). Using the number

of employees in each group, a weighted average for each practice was computed, as recommended by Guthrie (2001). These scores were then converted to Z-scores. Cronbach's alpha for the HPWS index was .81.

Table 1 presents the HPWS items used to create the HPWS index and descriptive statistics for each item representing the weighted average for both employee groups. Each item was collapsed into five HR headings. The key areas were (1) employee resourcing; (2) training and development; (3) performance management and remuneration; (4) communication and involvement and (5) family friendly/work life balance. The average index measure of HPWS in our sample ($x = 46.33$; s.d. = 16.17) compares favourably with other studies ($x = 49.58$; s.d. = 15.27, reported by Datta et al. 2005).

Insert Table 1 about here

Creativity climate was measured using a six question scale developed by Amabile *et al.*, (1996). Examples of statements in the scale include: 'new ideas are always encouraged and rewarded'. These were measured on a five point Likert scale. Factor analysis was conducted on six measures using principal axis factoring with varimax showing items loaded on to one clean factor. Cronbach's alpha was .89 indicating reliability of the scale.

Performance variables: A number of performance outcome measures were included as dependent variables. Organisational performance ($\alpha = .81$) was created in the form of an averaged index of eight variables. These eight variables measured the subjective evaluation of an organisation against competitors in the same industry in terms of: (1) profitability; (2) growth in sales; (3) market share; (4) quality of products/services; (5) development of new products and services; (6) % sales spent on R&D; (7) satisfaction of customer or clients; and

(8) operating costs (Delaney and Huselid, 1996). HR performance ($\alpha = .75$) was measured using a scale developed by Delaney and Huselid (1996) and included subjective evaluations of the organisations ability to attract and retain employees and management-employee relations in general. The employee performance variable utilised a scale developed by Guest *et al.*, (2000) and assessed areas such as quality of employees, level of employee output, flexibility of employees and identification with the organizations' core values and goals ($\alpha = .85$). All items loaded onto three factors with scores of .74 or higher.

Business strategy: Measures of business strategy build on the work of Porter (1985) focusing on low cost strategy and differentiation strategy. Respondents were asked to allocate a total of 100 percent the proportion of the organisation's total sales (turnover) that was achieved through each of the two strategic approaches. Low cost strategy was explained as organisations that compete on the basis of lower costs (through economies of scale, experience, technology etc.) resulting in lower prices to consumers. A differentiation strategy was one which created products or services perceived industry wide as unique. This measure of business strategy was adapted from a study by Carroll (1991).

Control variables: Consistent with other research, standard control variables were created and included in our regressions. Following Guthrie (2001) and Huselid (1995), we use the logarithm of the number of employees to operationalize firm size. Size has been found to impact prevalence of HPWS (Datta *et al.*, 2005). Union representation was measured by asking the proportion of employees unionised across each group. A dummy variable was then created where unionisation was coded 1 and non-union was coded as 0. Union representation has been association with productivity and turnover rates (Guthrie, 2001; Huselid, 1995). Industry sector was measured across twelve categories. An ownership dummy variable (indigenous or foreign

owned) was then created to control for ownership effects. Finally, the age of the establishment was included to control for possible lifecycle effects and learning curves in productivity.

Analysis and Results

Table 2 presents the means, standard deviations and correlations of variables for this study. We tested our hypotheses using hierarchical linear regression methods. In testing the mediating effects of organisational climate on the relationship between HPWS and organisational outcomes, we ensured that the four conditions suggested by Baron and Kenny (1986) were met. Many criticisms have been levelled against Baron and Kenny's (1986) model as it does not explicitly provide a numerical value of the strength of the mediated effect (see Zhao *et al.*, 2010 for a full review). As a result, this research goes beyond the causal step approach proposed by Baron and Kenny by following Preacher and Hayes (2008) procedures for mediation. Specifically, we used bootstrapping to further test for mediation using the INDIRECT syntax (Hayes, 2009; Preacher and Hayes, 2008). There are a number of advantages to using this statistical method as it does not rely on the assumption of a normal sampling distribution (see Preacher and Hayes, 2004; Shrout and Bolger, 2002), or suffer from a high Type I error rate as the number of inferential tests is minimized. Moderator effects were estimated through the use of interaction terms which are new variables defined as the product of a predictor/independent variable and a moderator variable (Aiken *et al.*, 1991).

Insert Table 2 about here

Main effects

Hypothesis 1 predicted a positive relationship between HPWS and a number of organisational outcomes. The results in Table 3 (4* Model 2) show a direct and positive relationship between HPWS and all three dependent variables. More specifically, HPWS was

positively related to employee performance ($\beta = .401, p < .001$), HR performance ($\beta = .289, p < .05$), and organisational performance ($\beta = .266, p < .001$). The variance explained by HPWS in each model was 13 percent (employee performance), 7 percent (HR performance), and 27 percent (organisational performance). Thus the results support hypotheses 1a to 1c, which posit that HPWS would positively impact employee performance, HR performance, and organisational performance, albeit to differing degrees contingent on the outcome under consideration.

Insert Table 3 about here

Mediation effects

Hypotheses 2 predicted the mediation effect of organisational climate in the relationship between HPWS and organisational outcomes. Following Baron and Kenny (1986) the first condition for mediation proposes that HPWS (as the independent variable) should be significantly related to organisational climate (the mediator). As the results depicted in Model 2 of Table 3 demonstrate, HPWS was significantly related to organisational climate ($\beta = .522, p < .001$). The second condition for mediation (that HPWS, the independent variable, has a direct effect on the dependent variables) was then tested. Results for this regression analysis have already been discussed showing condition 2 holds for all dependent variables. The above results fulfil the first two conditions of testing mediation. In step 3, the mediator, organisational climate, should predict the dependent variables. The findings revealed that organisational climate was significantly associated with: (a) employee performance ($\beta = .627, p < .001$), (b) HR performance ($\beta = .464, p < .001$) and (c) organisational performance ($\beta = .377, p < .001$). Finally, in the fourth step, test for mediation occurs if the significant relationship between HPWS and the dependent variables (step 3) either reliably reduces or becomes non-significant when controlling for organisational climate (step 4). Results show that the formerly significant

relationship between HPWS and employee performance, HR performance and organisational performance became insignificant when the dependent variables were regressed on both HPWS and organisational climate suggesting full mediation. To further strengthen the analysis bootstrapping was conducted using methods described by Preacher and Hayes (2007) for estimating direct and indirect effects with multiple mediators (5000 bootstrapped samples generated). Bootstrapping analysis indicated the effect of HPWS to employee performance through organisational climate ($\beta = .009$, 95% CI: .005 and .0145) was significant. Similarly, the results confirmed the positive indirect relationship between HPWS and HR performance via organisational climate ($\beta = .008$, 95% CI: .004 and .0125) and HPWS and organisational performance via organisational climate ($\beta = .005$, 95% CI: .0022 and .0098). Therefore, hypotheses 2a, 2b and 2c were supported.

Moderating effects

The next hypothesis moves to explore a key contingency likely to impact the strength of the HPWS-performance relationship, namely the strategic orientation of the firm. In hypotheses 3 and 4 we proposed the moderating role of strategy in the relationship between HPWS and organisational outcomes. This study examined two moderators – low cost strategy and differentiation strategy. A new interaction variable was computed for each moderator by multiplying the independent variable by the moderating variable. As all predictor variables and/or moderator variables in this study were continuous variables, Aiken and West (1991) suggest that researchers should first centre those predictors by subtracting the mean from each value, creating two new centred variables. Hierarchical multiple regression was used to examine moderator effects by entering variables into the regression equation through a series of steps (Aiken and West, 1991). The first step includes the control variables,

predictor/independent and moderator variables were entered in step 2. Finally, in step three, the interaction term is included in the regression model.

Therefore hypothesis 3 (a) was supported. Table 5 examines the moderating role of low cost strategy on the HPWS-performance relationship. An interaction variable was calculated (centred HPWS*centred cost reduction strategy). Findings suggest that low cost strategy moderates the relationship between HPWS and employee performance ($\beta = .164$, $p < .05$). Thus hypotheses 4b) and 4c)

Insert Table 4 about here

Insert Table 5 about here

Frazier *et al.*, (2004) recommend that the predicted values obtained from moderation regression modelling should then be used to create a figure depicting the trajectory of the moderator effect. Figures 2 and 3 illustrate the moderating effect of differentiation strategy. The direction of the interaction effects of differentiation strategy aligned with hypotheses 2a such that the relationship between HPWS and employee performance was more positive for organisations pursuing a more extensive differentiation strategy.

Insert Figure 2 about here

Figure 3 plots the interaction between HPWS and a low cost strategy and its relationship to employee performance. A somewhat unexpected effect for low cost strategy was found regarding the relationship between HPWS and employee performance. Contrary to

expectation, the direction of the interaction effect of low cost strategy was not consistent with hypothesis 4(a). Instead, the relationship between HPWS and employee performance was more positive among organisations pursuing a more extensive low cost strategy.

Insert Figure 3 about here

Discussion

Organisations need to have HRM practices which foster agility and creativity. While this argument was once the reserve of high-technology or fast paced industries it now holds general relevance (Dobbs *et al.*, 2015; Helfat and Winter, 2011). The findings indicate that HPWS has a positive impact in enhancing a number of performance variables across a diverse range of high performing firms from the Republic of Ireland. This lends further evidence to existing research on HRM and performance in an Irish context (Guthrie *et al.*, 2009), while also extending this to support recent work which has emphasized the significance of HRM in fostering creativity as a means to realise this performance benefit (Ceylan, 2013; Jackson *et al.*, 2014). Evidently organisations need to put in place a HR infrastructure which ensures that the organisation is open to change and has the capability to adapt to changing market needs (Patal *et al.*, 2013; Wei and Lau, 2010).

Hayton's review of corporate entrepreneurship highlights that risk acceptance and discretionary contributions may be "effectively encouraged through the creation of a climate in which entrepreneurial contributions are the result of a social exchange between employees and the organization" (2005: 32). The findings from our second set of hypothesis provide empirical support for the role of creativity climate as an explanatory mediating variable between HPWS and organisational outcomes in the form of employee, HR and organizational

performance. HRM practices which encourage high-involvement and emphasize mutual long-term exchange relationships are said foster greater knowledge creation and exchange (Bowen and Ostroff, 2004; Camelo-Ordaz *et al.*, 2011). Evidently HPWS do not merely serve to enhance the human capital pool but can also change the nature of the employment relationship (Evans and Davis, 2005). This links with debates that structures do not necessarily impact performance on their own, but that labour and agency interactions remain a critical conduit in generating creative contributions. This argument resonates with the emergence of a more process based perspective on HRM (Katou *et al.*, 2014) coupled with associated calls for greater exploration of the mediators of the HRM-organisational outcomes relationship (Jiang *et al.*, 2013). Creativity climate offers a useful contribution in this respect as it captures forward focusing and future proofing behaviours. Notably, additional analysis of our data suggests that organisational climate creativity climate may have universal relevance as an explanatory variable; both a mediated moderation and moderated mediation model examining the influence of strategy on the HRM-creativity climate-organisational outcome relationship were not supported (Not reported here but available from the authors).

While greater explanation of how and why HPWS take effect is an important line of questioning, this is equally the case for understanding the role of boundary conditions framing the direction and strength of this impact (Chadwick *et al.*, 2013; Jung *et al.*, 2008). This research explored strategic orientation as a moderating variable influencing the HPWS-organisational outcome relationship. While strategic orientation has received significant conceptual recognition this has not been reflected in subsequent empirical attention (Posthuma *et al.*, 2013; Jackson *et al.*, 2014). The findings offer some insightful and nuanced results. As hypothesized, differentiation strategy was found to moderate the relationship between HPWS and employee performance such that for those organisations pursuing a more extensive

differentiation strategy higher levels of HPWS were associated with more positive employee outcomes (see table 4). This suggests that organisations pursuing a differentiation strategy need depth and breadth of employee skills, as well as a higher level of commitment and involvement (Anderson *et al.*, 2014). Thus, HRM practices based on the high usage of employee participation in decision-making, teamworking and training, are all consistent with enabling positive outcomes.

In contrast, the findings showed that a low cost strategy negatively moderated the relationship between HPWS and innovation as hypothesized. Michie and Sheehan (2005) suggest that organizations pursuing a low cost business strategy will have lower levels of investment in HPWS and that the focus for practices is on narrow tasks, limited training, close supervision and little communication or participation. Contrary to expectations, however, a low cost approach was found to positively moderate employee outcomes of flexibility and greater work output in those organisations characteristic of a HPWS model and a low cost business strategy (see table 5). This again highlights the value of exploring multiple, both proximal and distal measures of performance. In part this finding may be attributable to the fact that employee outcomes in this instance were productivity orientated measuring dimensions such as employee flexibility and output rather than issues such as the extent of commitment to the organisation. On this basis the findings are not entirely inconsistent with a view that associates a low cost strategic orientation with performance improvements delivered via work intensification and greater work output, rather than quality of work life or psychological attributes (Godard, 2004). Low cost strategies can moderate HPWS outcomes by enhancing flexibility for improved profitable gain for the organization. Alternatively it may be that HPWS aids in the provision of clarity surround the purpose and implementation of a low cost orientation (Tracey, 2012).

While the findings with respect to employee performance support a more contingency based argument it is notable that no moderation effect was found for both differentiation and low cost strategic orientation with respect to organisational and HR performance outcomes, thereby suggesting a degree of universalistic HPWS impact for these outcomes (see Neal *et al.*, 2005). In support of this research by Monks *et al.*, (2013) finds that HR philosophies orientated towards either maximizing efficiency or relying on employee capability can be equally effective in terms of delivering organisational performance. More contingent explanations can then be invited for how HR processes and practices interact to produce different outcomes with respect to delivering desired role behaviours. Overall, the evidence affirms that the relationship between HPWS and business strategy is a nuanced one which is likely to vary based on the specific organisational outcomes under consideration.

Implications and limitations

The evidence has import for both academics and practitioners. First HPWS have been shown to directly impact organisational performance in a multifaceted way. Second the paper offers an explanation of the process through which such impact takes effect (Guest, 2011). The current findings suggest the value of a process and relationship based perspective rather than a focus on the content of practices per se. Third the findings suggest that organisations should develop a clear and consistent general HR philosophy to realise HR and organisational performance., but also pay due attention to the key contingencies in terms desired employee behaviours.

While the findings illustrate the benefits of broader and multifaceted performance outcomes, future research would benefit from combining both subjective and objective

measures when measuring performance. In order to develop causal explanations for the relationships exhibited cross-sectional research needs to be complimented with more longitudinal research designs. Evidently, a richer understanding could be gained by surveying multiple respondents, with employee respondents particularly significant in exploring the impact of HPWS, especially via concepts such as creativity climate. Thus while the current research has opened up a number of prospective research avenues, without direct consideration of the mediating role of employee outcomes, understanding will remain partial at best (Jiang *et al.*, 2013).

As with all cross sectional research, common method variance can become an issue. However the present research specifically selected key respondent groups to overcome such limitations. In fact it can be stated that the present research demanded common methods across both distinct employment groups to allow comparisons (Spector, 2006). Research has shown at a meta-analysis level that common methods are no less reliable than other methods (Crampton and Wagner, 1994). However the present research does not indicate common method bias as principle component analysis did not indicate one factor accounting for the majority of variance in the research model. The variance shown in HRM performance impact across differing variables also serves to diminish concerns.

Conclusion

This paper responds to recent calls for greater exploration of prospective mediators and moderators in the relationship between HPWS and organisational outcomes (Jiang *et al.*, 2012; Chadwick *et al.*, 2013). The findings highlight the complexities of the HRM-performance relationship by demonstrating the role of creativity climate as a significant mechanism through

which HPWS can impact performance. Arguably, it is only by drawing attention to the internal processes through which HRM's impact takes effect that HRM can find a more secure foundation to highlight its merits (Jackson *et al.*, 2014; Sun *et al.*, 2007). The significance of climate in this respect is that it is malleable to mediation by a set of HR practices. With respect to moderation, strategic orientation was found to play a significant role in moderating the impact between HPWS and employee performance but not HPWS and HR and organisational performance. This highlights that all too often there is a stark and overly simplistic distinction between universalistic and contingency logics in examining HPWS, absent of an appreciation of the conditions informing either. Purposeful consideration of multi-faceted dimensions of organisational outcomes enabled a more nuanced and considered explication of the impact of HPWS, suggesting the value of further intricate research in this vein.

References

- Ahmad, S., & Schroeder, R.G. (2003), "The impact of human resource management practices on operational performance: recognizing country and industry differences". *Journal of Operations Management*, Vol. 21, No. 1, pp. 19-43.
- Aiken, L.S., West, S.G., & Reno, R.R. (1991). *Multiple regression: Testing and interpreting interactions*: Sage.
- Amabile, T.M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996), "Assessing the Work Environment for Creativity". *Academy of Management Journal*, Vol. 39, No. 5, pp. 1154-1184.

- Anderson, N., Potočník, K., & Zhou, J. (2014), "Innovation and Creativity in Organizations A State-of-the-Science Review, Prospective Commentary, and Guiding Framework". *Journal of Management*, Vol. 40, No. 5, pp. 1297-1333.
- Armstrong, J.S., & Overton, T.S. (1977), "Estimating nonresponse bias in mail surveys". *Journal of marketing research*, Vol. No., pp. 396-402.
- Arthur, J. (1992), "Link between Business Strategy and Industrial Relations Systems in American Steel Minimills". *Industrial and Labor Relations Review*, Vol. 45, No. 3, pp. 488-506.
- Arthur, J.B. (1994), "Effects of human resource systems on manufacturing performance and turnover". *Academy of Management Journal*, Vol. 37, No. 3, pp. 670-687.
- Bamberger, P., & Meshoulam, I. (2000). *Human Resource Strategy. Formulation, implementation and impact*. Thousand Oaks (CA),: Sage.
- Barney, J. (1991), "Firm resources and sustained competitive advantage". *Journal of Management*, Vol. 17, No., pp. 99-120.
- Baron, R.M., & Kenny, D.A. (1986), "The moderator-mediator variable distinction in social psychological research, Conceptual, strategic and statistical considerations". *Journal of Personality and Social Psychology*, Vol. 51, No., pp. 1173-1182.
- Batt, R., & Banerjee, M. (2012), "The scope and trajectory of strategic HR research: evidence from American and British journals". *The International Journal of Human Resource Management*, Vol. 23, No. 9, pp. 1739-1762.
- Becker, B., & Huselid, M.A. (2006), "Strategic Human Resources Management: Where Do We Go From Here?". *Journal of Management*, Vol. 32, No. 6, pp. 898-925.
- Beer, M., Spector, B., Lawrence, P.R., Quinn Mills, D., & And Walton, R.E. (1984). *Managing Human Assets*. New York: Free Press.
- Bird, A., & Beechler, S. (1995), "Links between business strategy and human resource management strategy in US-based Japanese subsidiaries: An empirical investigation". *Journal of International Business Studies*, Vol. No., pp. 23-46.
- Birkinshaw, J., & Duke, L. (2013), "Employee-Led Innovation". *Business Strategy Review*, Vol. 24, No. 2, pp. 46-51.
- Bornay-Barrachina, M., La Rosa-Navarro, D., López-Cabrales, A., & Valle-Cabrera, R. (2012), "Employment relationships and firm innovation: the double role of human capital". *British Journal of Management*, Vol. 23, No. 2, pp. 223-240.
- Boselie, P., Dietz, G., & Boon, C. (2005), "Commonalities and contradictions in HRM and performance research". *Human Resource Management Journal*, Vol. 15, No. 3, pp. 67-94.
- Bowen, D.E., & Ostroff, C. (2004), "Understanding HRM -Firm Performance Linkages: The Role of the HRM System". *Academy of Management Review*, Vol. 29, No. 2, pp. 203-221.
- Boxall, P., Ang, S.H., & Bartram, T. (2011), "Analysing the 'black box' of HRM: Uncovering HR goals, mediators, and outcomes in a standardized service environment". *Journal of Management Studies*, Vol. 48, No. 7, pp. 1504-1532.
- Boxall, P., & Macky, K. (2014), "High-involvement work processes, work intensification and employee well-being". *Work, Employment & Society*, Vol. 28, No. 6, pp. 963-984.
- Boxall, P., & Purcell, J. (2003), "Strategy and human resource management". *Industrial & Labor Relations Review*, Vol. 57, No. 1, pp. 84.
- Camelo-Ordaz, C., Garcia-Cruz, J., Sousa-Ginel, E., & Valle-Cabrera, R. (2011), "The influence of human resource management on knowledge sharing and innovation in Spain: the mediating role of affective commitment". *The International Journal of Human Resource Management*, Vol. 22, No. 07, pp. 1442-1463.

- Camps, J., & Luna-Arocas, R. (2012), "A matter of learning: How human resources affect organizational performance". *British Journal of Management*, Vol. 23, No. 1, pp. 1-21.
- Carroll, S.J. (Ed.). (1991). *The new HRM roles, responsibilities, and structures*. Washington, D.C.
- Ceylan, C. (2013), "Commitment-based HR practices, different types of innovation activities and firm innovation performance". *The International Journal of Human Resource Management*, Vol. 24, No. 1, pp. 208-226.
- Chadwick, C., Way, S.A., Kerr, G., & Thacker, J.W. (2013), "Boundary Conditions of the High-Investment Human Resource Systems-Small-Firm Labor Productivity Relationship". *Personnel Psychology*, Vol. 66, No. 2, pp. 311-343.
- Chen, Z.X., Tsui, A.S., & Farh, J.L. (2002), "Loyalty to supervisor vs. organizational commitment: Relationships to employee performance in China". *Journal of Occupational and Organizational Psychology*, Vol. 75, No. 3, pp. 339-356.
- Chow, I.H.-S. (2012), "The roles of implementation and organizational culture in the HR–performance link". *The International Journal of Human Resource Management*, Vol. 23, No. 15, pp. 3114-3132.
- Chow, I.H.S., & Liu, S. (2009), "The effect of aligning organizational culture and business strategy with HR systems on firm performance in Chinese enterprises". *The International Journal of Human Resource Management*, Vol. 20, No. 11, pp. 2292-2310.
- Chuang, C.H., & Liao, H. (2010), "Strategic human resource management in service context: Taking care of business by taking care of employees and customers". *Personnel Psychology*, Vol. 63, No. 1, pp. 153-196.
- Collins, C.J., & Smith, K.G. (2006), "Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms". *Academy of Management Journal*, Vol. 49, No. 3, pp. 544-560.
- Combs, J., Liu, Y., Hall, A., & Ketchen, D. (2006), "How much do high performance work practices matter? A meta-analysis of their effects on organizational performance". *Personnel Psychology*, Vol. 59, No. 3, pp. 501-528.
- Cooke, F.L., & Saini, D.S. (2010), "(How) does the HR strategy support an innovation oriented business strategy? An investigation of institutional context and organizational practices in Indian firms". *Human Resource Management*, Vol. 49, No. 3, pp. 377-400.
- Crampton, S.M., & Wagner, J.A. (1994), "Percept-percept inflation in microorganizational research: An investigation of prevalence and effect". *Journal of Applied Psychology*, Vol. 79, No. 1, pp. 67-76.
- Datta, D.K., Guthrie, J.P., & Wright, P.M. (2005), "Human resource management and labor productivity: does industry matter?". *Academy of Management Journal*, Vol. 48, No. 1, pp. 135-145.
- Day, D., & Bedeian, A. (1991), "Predicting Job Performance Across Organizations: The Interaction of Work Orientation and Psychological Climate". *Journal of Management*, Vol. 17, No. 3, pp. 589-600.
- Delaney, J.T., & Huselid, M.A. (1996), "The impact of human resource management practices on perceptions of organizational performance". *Academy of Management Journal*, Vol. 39, No. 4, pp. 949-969.
- Deleede, J., & Looise, J.K. (2005), "Innovation and HRM: Towards an Integrated Framework". *Creativity and Innovation Management*, Vol. 14, No. 2, pp. 108-117.
- Dixon, S., Meyer, K., & Day, M. (2014), "Building dynamic capabilities of adaptation and innovation: a study of micro-foundations in a transition economy". *Long Range Planning*, Vol. 47, No. 4, pp. 186-205.

- Dobbs, R., Manyika, J., & Woetzel, J. (2015), "The four global forces breaking all the trends." *McKinsey Quarterly*, Vol. April: 1-5.,No., pp.
- Dyer, L., & Reeves, T. (1995), "Human resource strategies and firm performance: what do we know and where do we need to go?". *International Journal of Human Resource Management*, Vol. 6,No. 3, pp. 656-670.
- Eisenberger, R., Fasolo, P., & Davis-Lamastro, V. (1990), "Perceived organizational support and employee diligence, commitment, and innovation". *Journal of Applied Psychology*, Vol. 71,No. 1, pp. 51-59.
- Evans, W.R., & Davis, W.D. (2005), "High-performance work systems and organizational performance: The mediating role of internal social structure". *Journal of Management*, Vol. 31,No. 5, pp. 758-775.
- Frazier, P.A., Tix, A.P., & Barron, K.E. (2004), "Testing moderator and mediator effects in counseling psychology research". *Journal of counseling psychology*, Vol. 51,No. 1, pp. 115.
- Gelade, G.A., & Ivery, M. (2003), "The impact of human resource management and work climate on organisational performance". *Personnel Psychology*, Vol. 56,No., pp. 383-404.
- Gittell, J.H., Seidner, R., & Wimbush, J. (2010), "A relational model of how high-performance work systems work". *Organization Science*, Vol. 21,No. 2, pp. 490-506.
- Godard, J. (2004), "A critical assessment of the high-performance paradigm". *British Journal of Industrial Relations*, Vol. 42,No. 2, pp. 349-378.
- Gould-Williams, J. (2007), "HR practices, organizational climate and employee outcomes: evaluating social exchange relationships in local government". *International Journal of Human Resource Management*, Vol. 19,No. 9, pp. 1627-1647.
- Gratton, L., Hope-Hailey, V., Stiles, P., & Truss, C. (1999), "Linking individual performance to business strategy: The people process model". *Strategic human resource management*, Vol. 38,No., pp. 17-31.
- Guest, D., & Conway, N. (2011), "The impact of HR practices, HR effectiveness and a 'strong HR system' on organisational outcomes: a stakeholder perspective". *The International Journal of Human Resource Management*, Vol. 22,No. 8, pp. 1686-1702.
- Guest, D., Michie, J., Sheehan, M., Conway, N., & Metochi, M. (2000). *Effective people management*: London: CIPD.
- Guest, D.E. (1997), "Human resource management and performance: a review and research agenda". *The International Journal of Human Resource Management*, Vol. 8,No. 3, pp. 263-276.
- Guthrie, J.P. (2001), "High-involvement work practices, turnover, and productivity: Evidence from New Zealand". *Academy of Management Journal*, Vol. 44,No. 1, pp. 180-190.
- Guthrie, J.P., Flood, P.C., Liu, W., & Maccurtain, S. (2009), "High performance work systems in Ireland: human resource and organizational outcomes". *The International Journal of Human Resource Management*, Vol. 20,No. 1, pp. 112-125.
- Guthrie, J.P., Spell, C.S., & Nyamori, R.O. (2002), "Correlates and consequences of high involvement work practices: The role of competitive strategy". *International Journal of Human Resource Management*, Vol. 13,No. 1, pp. 183-197.
- Harter J, Schmidt F, & T, H. (2002), "Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis". *Journal of Applied Psychology*, Vol. 87,No., pp. 268-279.
- Hayes, A.F. (2009), "Beyond Baron and Kenny: Statistical mediation analysis in the new millennium". *Communication monographs*, Vol. 76,No. 4, pp. 408-420.

- Hayton, J.C. (2005), "Promoting corporate entrepreneurship through human resource management practices: a review of empirical research". *Human Resource Management Review*, Vol. 15, No. 1, pp. 21-41.
- Helfat, C.E., & Winter, S.G. (2011), "Untangling dynamic and operational capabilities: Strategy for the (N) ever-changing world". *Strategic Management Journal*, Vol. 32, No. 11, pp. 1243-1250.
- Huselid, M.A. (1995), "The impact of human resource management practices on turnover, productivity and corporate financial performance". *Academy of Management Journal*, Vol. 38, No. 3, pp. 635-672.
- Jackson, S.E., Schuler, R.S., & Jiang, K. (2014), "An aspirational framework for strategic human resource management". *The Academy of Management Annals*, Vol. 8, No. 1, pp. 1-56.
- Jackson, S.E., Schuler, R.S., & Rivero, J.C. (1989), "Organizational characteristics as predictors of personnel practices". *Personnel Psychology*, Vol. 42, No. 4, pp. 727-786.
- James, L.R., James, L.A., & Ashe, D.K. (Eds.). (1990). *The meaning of organizations: the role of cognition and values*. San Francisco: Jossey-Bass.
- Janssen, O. (2000), "Job demands, perceptions of effort-reward fairness and innovative work behaviour". *Journal of Occupational and Organizational Psychology*, Vol. 73, No. 3, pp. 287-302.
- Jiang, K., Takeuchi, R., & Lepak, D. (2013), "Where do we go from here? New perspectives on the black boxes on strategic human resource management research". *Journal of Management Studies*, Vol. 50, No. 8, pp. 1448-14480.
- Jung, D.D., Wu, A., & Chow, C.W. (2008), "Towards understanding the direct and indirect effects of CEOs' transformational leadership on firm innovation". *The Leadership Quarterly*, Vol. 19, No. 5, pp. 582-594.
- Kangis, P., & Williams, D. (2000), "Organisational climate and corporate performance: an empirical investigation". *Management Decision*, Vol. 38, No. 8, pp. 531-540.
- Katou, A.A., Budhwar, P.S., & Patel, C. (2014), "Content vs. Process in the HRM-Performance Relationship: An Empirical Examination". *Human Resource Management*, Vol. 53, No. 4, pp. 527-544.
- Kim, W.C., & Mauborgne, R. (2004). *Blue ocean strategy*. Boston: Harvard Business School Publishing Corporation.
- Knight-Turvey, N. (2005). *HRM climate: antecedents and moderating effects of climate level and climate strength*. Paper presented at the Academy of Management Proceedings.
- Laursen, K., & Foss, N.J. (2003), "New human resource management practices, complementarities and the impact on innovation performance". *Cambridge Journal of Economics*, Vol. 27, No. 2, pp. 243-263.
- Lepak, D.P., Taylor, M.S., Tekleab, A.G., Marrone, J.A., & Cohen, D.J. (2007), "An examination of the use of high-investment human resource systems for core and support employees". *Human Resource Management*, Vol. 46, No. 2, pp. 223-246.
- Liao, H., Toya, K., Lepak, D.P., & Hong, Y. (2009), "Do they see eye to eye? Management and employee perspectives of high-performance work systems and influence processes on service quality". *Journal of Applied Psychology*, Vol. 94, No. 2, pp. 371.
- Macduffie, J.P. (1995), "Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry". *Industrial and Labor Relations Review*, Vol. 48, No. 2, pp. 197-221.
- Michie, J., & Sheehan, M. (2005), "Business strategy, human resources, labour market flexibility and competitive advantage". *The International Journal of Human Resource Management*, Vol. 16, No. 3, pp. 445-464.

- Monks, K., Kelly, G., Conway, E., Flood, P., Truss, K., & Hannon, E. (2013), "Understanding how HR systems work: the role of HR philosophy and HR processes". *Human Resource Management Journal*, Vol. 23, No. 4, pp. 379-395.
- Montag, T., Maertz, C.P., & Baer, M. (2012), "A critical analysis of the workplace creativity criterion space". *Journal of Management*, Vol. 38, No. 4, pp. 1362-1386.
- Neal, A., West, M., & Patterson, M. (2005), "Do Organisational Climate and Competitive Strategy Moderate the Relationship Between Human Resource Management and Productivity?". *Journal of Management*, Vol. 31, No. 4, pp. 492-512.
- Organ, D.W. (1998). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Ostroff, C., & Schmitt, N. (1993), "Configurations of organizational effectiveness and efficiency". *Academy of Management Journal*, Vol. 36, No., pp. 1345–1361.
- Paaauwe, J. (2004). *HRM and Performance: Achieving Long Term Viability*: Oxford University Press.
- Paaauwe, J., & Boselie, P. (2005), "HRM and Performance: What's Next?". *CAHRS Working Paper 05-09*.
- Patel, P., Messersmith, J., & Lepak, D. (2013), "Walking the tight-rope: an assessment of the relationship between high performance work systems and organizational ambidexterity". *Academy of Management Journal*, Vol. 56, No. 5, pp. 1420-1442.
- Patel, P.C., & Cardon, M.S. (2010), "Adopting HRM practices and their effectiveness in small firms facing product-market competition". *Human Resource Management*, Vol. 49, No. 2, pp. 265-290.
- Patterson, M., West, M., Lawthom, R., & Nickell, S. (1997). Impact of People Management Practices on Performance. In CIPD (Ed.), *Issues in People Management* (pp. 1-28): CIPD.
- Pfeffer, J. (1998). *The Human Equation: Building Profits by Putting People First*. Boston, MA: Harvard Business School Press.
- Porter, M.E. (1985). *Competitive Advantage*. New York: Free Press.
- Posthuma, R.A., Campion, M.C., Masimova, M., & Campion, M.A. (2013), "A High Performance Work Practices Taxonomy Integrating the Literature and Directing Future Research". *Journal of Management*, Vol. 39, No. 5, pp. 1184-1220
- Preacher, K.J., & Hayes, A.F. (2004), "SPSS and SAS procedures for estimating indirect effects in simple mediation models". *Behavior research methods, instruments, & computers*, Vol. 36, No. 4, pp. 717-731.
- Preacher, K.J., & Hayes, A.F. (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models". *Behavior research methods*, Vol. 40, No. 3, pp. 879-891.
- Pritchard, R., & Karasick, B. (1973), "The effects of organizational climate on managerial job performance and job satisfaction". *Organizational Behavior and Human Performance*, Vol. 9, No. 1, pp. 126-146.
- Purcell, J., & Kinnie, N. (2007). HRM and Business Performance. In P. Boxall, J. Purcell & P. Wright (Eds.), *The Oxford Handbook of Human Resource Management* (pp. 333-551). Oxford: Oxford University Press.
- Rousseau, D. (1988), "The construction of climate in organizational research". *International Review of Industrial and Organizational Psychology*, Vol. 3, No., pp. 139-158.
- Sanders, K., Dorenbosch, L., & De Reuver, R. (2008), "The impact of individual and shared employee perceptions of HRM on affective commitment: Considering the climate strength". *Personnel Review*, Vol. 37, No. 4, pp. 412-425.

- Schuler, R.S., & Jackson, S.E. (1987), "Linking Competitive Strategies with Human Resource Management Practices.". *Academy of Management Executive*, Vol. 1, No. 3, pp. 207-219.
- Searle, H.R., & Ball, S.K. (2003), "Supporting Innovation through HR Policy: evidence from the UK". *Creativity and Innovation Management*, Vol. 12, No. 1, pp. 50-62.
- Shipton, H., West, M., Birdi, K., & Patterson, M. (2006), "HRM as a predictor of innovation". *Human Resource Management Journal*, Vol. 16, No. 1, pp. 3-27.
- Shore, L.M., & Shore, T.H. (Eds.). (1995). *Perceived organizational support and organizational justice*. Westport, CT: Quorum.
- Shrout, P.E., & Bolger, N. (2002), "Mediation in experimental and nonexperimental studies: new procedures and recommendations". *Psychological methods*, Vol. 7, No. 4, pp. 422-445.
- Spector, P.E. (2006), "Method variance in organizational research truth or urban legend?". *Organizational research methods*, Vol. 9, No. 2, pp. 221-232.
- Subramony, M. (2009), "A meta-analytic investigation of the relationship between HRM bundles and firm performance". *Human resource management*, Vol. 48, No. 5, pp. 745-768.
- Sun, L.-Y., Aryee, S., & Law, K.S. (2007), "High-performance human resource practices, citizenship behavior, and organizational performance: A relational perspective". *Academy of Management Journal*, Vol. 50, No. 3, pp. 558-577.
- Tracey, J.B. (2012), "A contextual, flexibility-based model of the HR-firm performance relationship". *Management Decision*, Vol. 50, No. 5, pp. 909-924.
- Truss, C. (2001), "Complexities and controversies in linking HRM with organizational outcomes". *Journal of Management Studies*, Vol. 38, No. 8, pp. 1121-1149.
- Wang, J., & Verma, A. (2012), "Explaining organizational responsiveness to work-life balance issues: The role of business strategy and high-performance work systems". *Human Resource Management*, Vol. 51, No. 3, pp. 407-432.
- Wei, L.-Q., & Lau, C.-M. (2010), "High performance work systems and performance: The role of adaptive capability". *Human Relations*, Vol. 63, No. 10, pp. 1487-1511.
- Wright, P.M., & Nishii, L.H. (2007), "Strategic HRM and organizational behavior: Integrating multiple levels of analysis". *CAHRS Working Paper Series*, Vol. 07-03, No., pp. 1-24.
- Youndt, M.A., Snell, S.A., Dean, J.W., & Lepak, D.P. (1996), "Human resource management, manufacturing strategy, and firm performance". *Academy of Management Journal*, Vol. 39, No., pp. 836-866.
- Zhao, X., Lynch, J.G., & Chen, Q. (2010), "Reconsidering Baron and Kenny: Myths and truths about mediation analysis". *Journal of consumer research*, Vol. 37, No. 2, pp. 197-206.

