High-performance work system and employee creativity

The roles of perceived organisational support and devolved management

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Abstract

Purpose – The purpose of this paper is to examine the underlying mechanism through which high-performance work system (HPWS) influences employee creativity. In addition, this paper aims to examine contingent factors in the relationship between perceived organisational support and employee creativity.

Design/methodology/approach – The sample of the study included 268 employees and matched supervisors from two pesticide chemical companies in China. Hypotheses were tested with linear regressions.

Findings – The study shows that HPWS enhances perceived organisational support, which in turn promotes employee creativity. Moreover, the results also indicate that devolved management positively moderates the relationship between perceived organisational support and employee creativity.

Research limitations/implications – The unique environment of China may limit the generalisability of the findings. Future studies can extend these findings by conducting studies in other societal contexts.

Practical implications – When trying to inspire employee creativity, organisations need to pay attention to employees’ perception of organisational support. One way of enhancing perceived organisational support is to implement HPWS. In addition, organisations need to encourage devolved management in order to inspire more creative behaviours.

Originality/value – This is the first study that explores the mediating role of perceived organisational support in the HPWS-employee creativity linkage. In addition, the study provides what is believed to be the first test of the moderating role of devolved management.

Keywords China, Quantitative, Employee creativity, High-performance work systems (HPWSs), Perceived organizational support, Devolved management

Paper type Research paper

Introduction

In the past decade or so, a great deal of research has been conducted on the individual and organisational outcomes of high-performance work systems (HPWSs), such as job performance (Shih et al., 2013), voluntary turnover (Selden et al., 2013), discretionary behaviour (Elorza et al., 2016) and firm performance (Messersmith and Guthrie, 2010) (see also Kaufman, 2015 for an overview and critique). However, comparatively few studies have...
investigated the influence of HPWS on employee creativity (Chiang et al., 2015). This is in spite of the fact that employee creativity contributes substantially to organisational innovation and competitive advantage (Amabile, 1988). This is an important research gap considering that sustainable organisational performance is hinged on organisational innovativeness and a highly skilled and committed workforce (e.g. Ehnert et al., 2016; Pfeffer, 2010; Shipton et al., 2016).

Another development in the field of HPWS-performance research is the focus on how and why HPWS influences employee attitudes and behaviour, rather than simply documenting this direct relationship (e.g. Messersmith et al., 2011; Paauwe et al., 2013; Shen et al., 2014; see also Ostroff and Bowen, 2016 for a review). According to social-exchange theory, human resource management (HRM) practices that are perceived by employees to demonstrate organisations’ commitment to staff will be reciprocated with positive attitudes and behaviour (Whitener, 2001; Zacharatos et al., 2005). However, there remains insufficient research on the mechanisms through which HRM systems influence employee attitudes and behaviour, especially in the Chinese context (Shen et al., 2014). Therefore, we explore the mediating role of perceived organisational support in the relationship between HPWS and employee creativity.

Furthermore, according to the interactionist perspective (Woodman and Schoenfeldt, 1990; Woodman et al., 1993), employee creativity can be influenced by interaction among various factors, such as social (e.g. socio-emotional resource) and contextual components (e.g. management approach). Therefore, we can expect perceived organisational support and devolved management to interact to influence employee creativity. Devolved management requires giving employees more power and autonomy (Tang et al., 2015). Employees working in organisations implementing devolved management can experience a high level of autonomy (Tang et al., 2015), which inspires their creative behaviours (Zhang and Bartol, 2010). Under this condition, employees perceiving high level of organisational support are more willing to reciprocate through creativity. However, previous studies have paid little attention to the moderating role of devolved management in the relationship between perceived organisational support and employee creativity.

Our study fills the above research gaps, and therefore contributes to existing knowledge on HPWS-performance links, in three ways. First, we consider HPWS as an important antecedent of employee creativity. HPWS is an effective system that leads to superior organisational performance, yet few studies have focussed on its effect on employee creativity. Second, we examine the mediating role of perceived organisational support in the HPWS-employee creativity linkage, identify a new path through which HPWS inspires employee creativity (Chiang et al., 2015), and provide further empirical evidence for social-exchange theory. Third, our study broadens the understanding of the impact of devolved management by exploring the moderating role of devolved management in the perceived organisational support-employee creativity linkage. The conceptual model of this study is summarized in Figure 1.

**Literature review and hypotheses development**

**HPWS and employee creativity**

A high-performance work system is a bundle of HRM practices designed to promote employees’ skills, motivation and involvement to enable a firm to gain a sustainable competitive advantage.
(Datta et al., 2005; Guthrie, 2001; Huselid, 1995), which includes employment security, extensive training, teams and decentralised decision making, information sharing and so on (Zacharatos et al., 2005). HPWS can promote information exchange among employees, inspiring employees to generate creative ideas (Chiang et al., 2015). Previous studies have suggested that firms that implement HPWS are more likely to invest in their employees; to value employees' participation in decision making; and to meet employees' need for promotion and development (e.g. Giannikis and Nikandrou, 2013; Rose and Wright, 2005). Therefore, we argue that the implementation of HPWS plays an important role in fostering employee creativity.

Employee creativity refers to the generation of novel and useful ideas by employees. It has been suggested to greatly influence organisational innovation (Amabile et al., 1996; Jiang et al., 2012) or firm performance (Gong et al., 2013). Given the importance of employee creativity, numerous researchers have examined its antecedents, such as empowering leadership (Harris et al., 2014), team-member exchange (Liao et al., 2010), job dissatisfaction (Zhou and George, 2001) and employee learning orientation (Gong et al., 2009). As employees are members of their respective organisations and experience many management practices, we expect employees' attitudes and behaviour to depend on management systems (Chiang et al., 2015). Therefore, it is vital to examine the influence of management systems, such as HRM systems, on employee creativity. As systems of work practices that make a great contribution to superior organisational performance (Boxall and Macky, 2009), HPWS have been found to inspire creative ideas (Chiang et al., 2015) and innovation (Messersmith and Guthrie, 2010). Therefore, we expect the implementation of HPWS to have a positive effect on employee creativity.

Among the affordances of an HPWS, employment security can encourage employees to adopt a long-term perspective on their careers (Pfeffer, 1998), take the initiative (Bartram et al., 2014) and engage in creative behaviour. The provision of extensive training can broaden the knowledge and skills necessary for creativity (Amabile, 1983) and help employees to establish connections between their existing knowledge and new knowledge, leading to creative ideas and solutions (Chang et al., 2014). The opportunity to participate in decision making promotes the acquisition, sharing and combining of knowledge, which encourages learning behaviour (Edmondson, 1999) and thereby facilitates creative behaviour (Hirst et al., 2009). Information sharing can help employees to absorb new ideas and knowledge from others, which helps them to generate more creative ideas (Chiang et al., 2015). High-quality work is another important component of HPWS. A well-designed job can make employees get more autonomy and feedback, and perceive the significance of their work, and thereby enhance their intrinsic motivation and encourage them to generate creative ideas (Shalley et al., 2004). Therefore, we propose the following hypothesis:

\[ H1. \] HPWS has a positive effect on employee creativity.

The mediating role of perceived organisational support in the relationship between HPWS and employee creativity

Perceived organisational support refers to employees' evaluation of the extent to which their organisation values their contribution and cares about their well-being (Bowen and Ostroff, 2004; Eisenberger et al., 1986). It represents the exchange between employees and organisations (Eisenberger et al., 1986). Employees' perceptions of organisational support depend on their firm's readiness to reward employees' job involvement and meet their need for praise and approval (Eisenberger et al., 1986). HRM practices that emphasise investment in employees, participatory decision making and the provision of growth opportunities lead employees to feel supported by their firms and to consider themselves part of a social-exchange relationship (Allen et al., 2003; Paauwe et al., 2013). Therefore, employees within an effective HPWS are more likely to perceive their organisations as supportive and are better able to exhibit creativity and innovation.
In addition, some components of HPWS may positively affect perceived organisational support. For example, employment security encourages employees to feel that their organisations take a long-term perspective on their careers and invest time and resources in their development (Zacharatos et al., 2005), enhancing perceptions of organisational support. The provision of extensive training is a form of investment in employees, again leading to stronger perceptions of organisational support (Wayne et al., 1997). The opportunity to participate in decision making signals to employees that firms value their input (Allen et al., 2003). This can enhance perceptions of justice (Bowen and Ostroff, 2004; Cohen-Charash and Spector, 2001), making employees feel that their organisations care about their well-being (Eisenberger et al., 1986). Information sharing fosters a sense of trust and mutual support (Ghosal and Bartlett, 1994). Sharing views on performance, rewards and perceived fairness (Aggarwal et al., 2007) leads employees to believe that firms value their contribution (Robinson et al., 1994). High-quality work, a key element of HPWS (Zacharatos et al., 2005), also makes employees feel that they are valued (Pfeffer, 1998). Therefore, we expect the implementation of HPWS to predict perceived organisational support, as follows:

**H2.** HPWS has a positive effect on perceived organisational support.

According to social-exchange theory, employees who receive socio-emotional benefits from their organisations are more likely to feel obligated to reciprocate these benefits in the form of positive attitudes and behaviour (Allen et al., 2003; Maden, 2015). As a socio-emotional resource provided by the organisation (Wong et al., 2012), perceived organisational support is expected to be associated with positive attitudes and behaviour, such as employee creativity. Previous studies have found that employees who perceive their organisations to be highly supportive are more likely to generate creative ideas and engage in creative activities (e.g. Eisenberger et al., 1990; Ramus and Steger, 2000; Yu and Frenkel, 2013).

When employees perceive their organisations to be highly supportive, they are more likely to exhibit trust and confidence (Rich et al., 2010), fostering their willingness to propose creative ideas and suggestions. As such organisations are perceived to tolerate failure and approaches based on trial and error (Edmondson, 1999), and to endorse creativity and risk-taking behaviour, employees are more likely to feel psychologically secure in taking the initiative (Kahn, 1990) or engaging in creative practices. Employees receiving a high level of organisational support are also more likely to exhibit a positive mood (Eisenberger et al., 2001), which in turn facilitates creativity (Judge and Ilies, 2004). In addition, they are more willing to communicate and interact with others (Erdogan et al., 2004), thereby gaining more information and knowledge and generating more creative ideas (Chiang et al., 2015). They tend to feel more engaged with their work (e.g. Hakanen et al., 2008; Rich et al., 2010; Salanova et al., 2005), which leads them to enthusiastically promote creative ideas (Chang et al., 2013). In contrast, employees who perceive their organisations as relatively unsupportive tend to believe that their organisations do not appreciate their creative input (Luksyte and Spitzmüller, 2016), and thus invest less effort in creative behaviour. As perceived organisational support prompts employees to propose creative ideas, we propose the following hypothesis:

**H3.** Perceived organisational support has a positive effect on employee creativity.

In sum, the implementation of HPWS in firms can foster employees’ perception of organisational support, which in turn promotes employee creativity. According to social-exchange theory, employees view HPWS as manifestations of organisational support, and thus reciprocate by engaging in creative activities. Combining the above arguments, we propose the following hypothesis:

**H4.** The positive effect of HPWS on employee creativity is mediated by perceived organisational support.
The moderating role of devolved management

From the interactionist perspective (Woodman and Schoenfeldt, 1990; Woodman et al., 1993), individual creativity is the product of a complex interaction between myriad factors, such as social dynamics (e.g. socio-emotional resources) and contextual factors (e.g. management approaches). As outlined previously, perceived organisational support elicits confidence, positive attitudes and knowledge sharing, and thus promotes employee creativity. Although employees who perceive themselves to receive more organisational support are more likely to exhibit creative behaviour, the potential for creativity also depends on managers’ behaviour (Amabile et al., 1996; Choi et al., 2016). One of the factors determining employee creativity is the choice of management approach. Devolved management, an important approach, involves giving employees more power and autonomy, flattening the organisation’s structure and encouraging communication (Tang et al., 2015), all of which have important effects on creativity (e.g. Harris et al., 2014; Woodman et al., 1993; Zhang and Bartol, 2010). Therefore, we expect devolved management to interact with perceived organisational support to influence employee creativity.

In a devolved-management system, employees have more power and autonomy and thus more discretion in determining their own work; as a result, they are more likely to feel free of external controls or restrictions (Deci et al., 1989; Spreitzer, 1995) and to believe that managers have faith in their decision-making abilities (Haar and Spell, 2009). To reciprocate these benefits, employees who perceive high levels of organisational support are more willing to adjust their work, think freely, take risks and solve problems, and consequently generate more creative ideas (Wang and Cheng, 2009). Therefore, we posit that devolved management strengthens the relationship between perceived organisational support and employee creativity.

Conversely, when managers do not implement devolved management, employees have less job autonomy, preventing them from determining their own work tasks (Amabile et al., 1996; Oldham and Cummings, 1996). A lack of job autonomy can hinder creativity (Wang and Cheng, 2009). Under these circumstances, even if employees receive support and socio-emotional benefits from their organisations, they are less inclined to reward their organisations with creativity. In addition, an absence of devolved management may lead employees to believe that their decision-making abilities are not appreciated by managers. This perceived lack of appreciation is inconsistent with perceived organisational support, which may lead to frustration and confusion among employees. Such negative attitudes are likely to impede effort and persistence (Seo et al., 2004), reducing employees’ engagement in creative behaviour. Therefore, we expect devolved management to positively moderate the relationship between perceived organisational support and employee creativity, as indicated in the following hypothesis:

\[ H_5. \] Devolved management positively moderates the relationship between perceived organisational support and employee creativity.

Methods

Sampling and procedure

We collected data from two companies in China. All the two companies are pesticide chemical firms located in Shandong Province. The participants were employees and matched supervisors. They were invited to participate in the survey and assured of confidentiality of their responses.

We collected two waves of data to reduce the potential common method bias (Podsakoff et al., 2003). In the first wave, we administered 350 questionnaires to employees, and asked them to report their own demographics (e.g. sex and education background), their perception of HPWS, perceived organisational support and devolved management. About 40 days later, in the second wave, questionnaires were distributed to 80 supervisors
who are the leaders of the employees that have answered the questionnaires in the first wave data collection, asking them to rate their subordinates’ creativity. Given the incompleteness of some instruments and the confidentiality policy of some companies, we excluded 82 questionnaires answered by employees and 10 questionnaires answered by supervisors with missing values. We finally received 268 matching questionnaires.

Measurement items
In order to ensure the validity, we used items in measures developed by previous studies. A five-point Likert scale was used to measure all variables. Considering the validity of measurement scales, all the scales were derived mainly from English literature. We used a back-translation technique (Brislin, 1980) to translate the questionnaire in English to Chinese. A bilingual management professor checked both the English and Chinese versions of the questionnaire and provided feedback on content validity and clarity of instructions, which also lead to several changes in item wording for the final version of the questionnaire.

HPWS. Various measures of HPWSs have been developed by previous studies. The HPWS measure adopted from Guthrie (2001) and Huselid (1995) was used in this study. Sample items include: our firms always provide training opportunities for us. The Cronbach’s $\alpha$ for this measure was 0.88, suggesting acceptable measurement reliability.

Perceived organisational support. We selected four high-loading items from the source article (Eisenberger et al., 1986) that seemed applicable to Chinese employees to measure perceived organisational support. A sample item was “our firms cares about employees’ safety and health”, the Cronbach’s $\alpha$ for this measure was 0.86.

Devolved management. A three-item scale developed by Tang et al. (2015) was used to measure devolved management. A sample item was “In our firms communication between upper and lower level employees were frequent”. The Cronbach’s $\alpha$ for this measure was 0.81.

Employee creativity. We measured employee creativity using a 13-item scale from Zhou and George (2001). A sample item was “This employee suggests new ways to achieve goals or objectives”. The Cronbach’s $\alpha$ for this measure was 0.83.

Control variables. We introduced several employees’ characteristics as control variables. These included: employees’ sex, education background, supervisors’ education background and so on. Specifically, we controlled tenure by controlling for the years since the manager worked. According to Gong et al. (2012), employee’s proactive behaviour would affect employee creativity, so we also controlled for employee’s proactive behaviour using the five-item scale from Parker et al. (2006) ($\alpha = 0.92$).

Data analysis and results
Testing the measurement model
Prior to hypotheses testing, confirmatory factor analyses (CFAs) were first conducted to evaluate the distinctiveness of the key variables, treating HPWS, perceived organisational support, devolved management and employee creativity as four distinct factors. As shown in Table I, this model fitted the data well: $\chi^2 (129) = 313.96$, $p \leqslant 0.001$; comparative fit index $= 0.92$, Tucker-Lewis index $= 0.91$, root mean square error of approximation $= 0.07$. In addition, all of the loadings of indicators were significant, indicating convergent validity (Hair et al., 2010).

To test the distinctiveness of the key four variables, we examined the four-factor CFA model in addition to alternative three-, two- and one-factor models. The model comparison results (see Table I) show that the four-factor model fit the data considerably better than alternatives, supporting the distinctiveness of the four variables. Thus, all the four variables were used in subsequent analyses. Table II reports the descriptive statistics and correlation matrix.
Testing the hypotheses

Using stepwise regression to test hypotheses including interactive effects has become the tendency in recent studies. As linear regression can produce accurate estimates of the strength of the relationships between interaction products without losing power, it is argued that linear regression is the better approach to test moderating relationships than SEM which requires a relatively large sample size (Goodhue et al., 2007).

Table III shows the results of these regression results. Models 1 and 2 show the impacts of the control variables and HPWS on perceived organisational support, respectively. Then, we developed four additional models to test the mediating hypotheses. Model 3 specifies a regression equation on employee creativity with control variables. In Model 4, we added HPWS based on the control variables. In Model 6, we tested HPWS with perceived organisational support on employee creativity. Moreover, we developed two further models to test the moderating hypotheses. We added devolved management in Model 7, and the interaction in Model 8.

As Table III shows, the results in Model 4 indicate that HPWS has a significant and positive effect on employee creativity ($\beta = 0.41, p < 0.01$). The explanatory power of the equation is significant ($R^2 = 0.16, F = 9.12, p < 0.01$). Thus, $H1$ was supported. The results in Model 2 indicate that HPWS has a significant and positive effect on perceived organisational support ($\beta = 0.44, p < 0.01$). The explanatory power of this equation is significant at the 0.01 level (with $\Delta F = 62.19$), thereby supporting $H2$. In Model 5, perceived

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Four-factor model</td>
<td>313.96</td>
<td>129</td>
<td>0.91</td>
<td>0.92</td>
<td>0.07</td>
</tr>
<tr>
<td>Three-factor model 1: HPWS and perceived organisational support combined</td>
<td>629.01</td>
<td>132</td>
<td>0.75</td>
<td>0.79</td>
<td>0.12</td>
</tr>
<tr>
<td>Three-factor model 2: perceived organisational support and employee creativity combined</td>
<td>504.39</td>
<td>132</td>
<td>0.82</td>
<td>0.84</td>
<td>0.11</td>
</tr>
<tr>
<td>Three-factor model 3: employee creativity and devolved management combined</td>
<td>497.44</td>
<td>132</td>
<td>0.82</td>
<td>0.84</td>
<td>0.11</td>
</tr>
<tr>
<td>Two-factor model 1: HPWS, perceived organisational support and employee creativity combined</td>
<td>834.39</td>
<td>134</td>
<td>0.66</td>
<td>0.70</td>
<td>0.14</td>
</tr>
<tr>
<td>Two-factor model 2: perceived organisational support, employee creativity and devolved management combined</td>
<td>667.51</td>
<td>134</td>
<td>0.74</td>
<td>0.77</td>
<td>0.12</td>
</tr>
<tr>
<td>One-factor model</td>
<td>996.82</td>
<td>135</td>
<td>0.58</td>
<td>0.63</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Notes: TLI, Tucker-Lewis index; CFI, comparative fit index; RMSEA, root mean square error of approximation

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
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<th>7</th>
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<th>10</th>
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<tbody>
<tr>
<td>1. Sex</td>
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<td>2. Education</td>
<td>0.06</td>
<td>–</td>
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<td>–</td>
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<td>–</td>
<td>–</td>
<td>–</td>
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<tr>
<td>3. Years working with leader</td>
<td>0.04</td>
<td>–0.05</td>
<td>–</td>
<td>–</td>
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<td>–</td>
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<tr>
<td>4. Supervisor’s education</td>
<td>0.01</td>
<td>–0.04</td>
<td>–0.04</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td>–</td>
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<tr>
<td>5. Supervisor’s tenure</td>
<td>–0.03</td>
<td>0.01</td>
<td>0.17**</td>
<td>–0.18**</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<tr>
<td>6. Employee’s proactive behaviour</td>
<td>–0.03</td>
<td>–0.08</td>
<td>–0.01</td>
<td>0.09</td>
<td>–0.11</td>
<td>–</td>
<td>–</td>
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<tr>
<td>7. HPWS</td>
<td>0.12*</td>
<td>–0.05</td>
<td>0.09</td>
<td>0.04</td>
<td>0.04</td>
<td>0.04</td>
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<td>0.04</td>
<td>(0.88)</td>
<td>0.04</td>
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<tr>
<td>8. Perceived organisational support</td>
<td>–0.04</td>
<td>–0.13*</td>
<td>0.02</td>
<td>0.05</td>
<td>–0.02</td>
<td>0.05</td>
<td>0.44**</td>
<td>(0.86)</td>
<td>(0.60)**</td>
<td>(0.60)**</td>
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<tr>
<td>9. Devolved management</td>
<td>–0.01</td>
<td>–0.12*</td>
<td>0.05</td>
<td>0.07</td>
<td>–0.03</td>
<td>–0.01</td>
<td>0.23**</td>
<td>0.43**</td>
<td>(0.81)</td>
<td>(0.81)</td>
</tr>
<tr>
<td>10. Employee creativity</td>
<td>–0.01</td>
<td>–0.11</td>
<td>–0.01</td>
<td>0.09</td>
<td>0.02</td>
<td>0.14*</td>
<td>0.41**</td>
<td>0.60**</td>
<td>0.40**</td>
<td>(0.83)</td>
</tr>
<tr>
<td>Mean</td>
<td>1.39</td>
<td>3.94</td>
<td>2.60</td>
<td>3.79</td>
<td>7.42</td>
<td>4.03</td>
<td>3.82</td>
<td>3.87</td>
<td>3.76</td>
<td>3.83</td>
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<tr>
<td>SD</td>
<td>0.49</td>
<td>0.68</td>
<td>4.84</td>
<td>0.54</td>
<td>7.10</td>
<td>0.75</td>
<td>0.62</td>
<td>0.80</td>
<td>0.84</td>
<td>0.67</td>
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</table>

Notes: $n = 268$. Cronbach’s $\alpha$ appears along the diagonal in the brackets. *$p < 0.05$; **$p < 0.01$
organisational support has a positively significant effect on employee creativity ($\beta = 0.59$, $p < 0.01$). The explanatory power of this equation is significant at the 0.01 level (with $\Delta F = 140.31$), thus $H3$ was supported.

According to Baron and Kenny (1986), the mediation test should meet three conditions in the regression analyses: the relationship between the independent variable (i.e. HPWS) and the mediator (perceived organisational support) is significant; the relationship between the independent variable and the dependent variable (employee creativity) is significant; and when the mediator is present, if the independent variable is not significantly related to the dependent variable, full mediation is supported. If the relationship between the independent variable and the dependent variable is still significant but weaker, then partial mediation is supported. The results presented in Table III show that Condition 1 is supported, as HPWS was positively related to perceived organisational support ($\beta = 0.44$, $p < 0.01$, Model 2). Condition 2 is also supported, HPWS was positively related to employee creativity ($\beta = 0.41$, $p < 0.01$, Model 4). Condition 3 is supported, the relationship between HPWS and employee creativity is still significant when perceived organisational support was entered into the model ($\beta = 0.19$, $p < 0.01$, Model 6). Thus $H4$ was supported.

Then, we carried out regression analyses to examine the moderation hypothesis ($H5$). In order to minimise multicollinearity, all interaction variables were standard centred. $H5$ predicts that devolved management moderates the relationship between perceived organisational support and employee creativity. As shown in Table III, the interaction between perceived organisational support and devolved management was positively related to employee creativity ($\beta = 0.10$, $p < 0.05$, Model 8). In order to determine the nature of the
moderating effect, we computed slopes 1SD above and below the mean of devolved management to plot the interaction. Figure 2 shows this interaction pattern. Consistent with H5, perceived organisational support had a stronger positive relationship with employee creativity when the degree of devolved management was high ($\beta = 0.45, p < 0.01$) rather than low ($\beta = 0.33, p < 0.01$).

In addition, the direct effect of HPWS on employee creativity was significant ($\beta = 0.41, p < 0.01$, Table III, Model 4). Notably, we not only explore the direct effect of HPWS on employee creativity, but also examine the mechanisms between the HPWS-employee creativity. Based on our hypotheses, we would infer that HPWS would have a significant indirect effect on employee creativity via perceived organisational support. Thus, next, we examined whether HPWS was indeed associated with perceived organisational support and whether the indirect effect on employee creativity was significant.

In predicting employee creativity, we treated HPWS as the predictor, perceived organisational support as the mediator and devolved management as the moderator. We included the same list of control variables as above including employee’s proactive behaviour. We used the PROCESS macro method developed by Hayes (2012) with 5,000 times resampling under Model 14 specification. That is, devolved management only moderated the link between perceived organisational support and employee creativity. Consistent with the finding above, when devolved management is low (1SD below the mean, indirect effect: $B = 0.11, SE = 0.03, BC 95\% CI = [0.07, 0.16]$), high (1SD above the mean, indirect effect: $B = 0.16, SE = 0.04, BC 95\% CI = [0.11, 0.24]$) and mean (indirect effect: $B = 0.14, SE = 0.03, BC 95\% CI = [0.10, 0.19]$), HPWS had a significant indirect effect on employee creativity. Table IV summarises the moderated mediation analysis of this model. In sum, H5 is supported.

Discussion

Contributions to knowledge

This study makes several contributions. First, it enriches existing literature on employee creativity by showing that the implementation of HPWS inspires employee creativity. To our knowledge, previous studies have explored the relationship between HRM practices and employee creativity (e.g. Chang et al., 2014; Chiang et al., 2015; Jiang et al., 2012). However, few studies in the HRM literature have focussed on the impact of HPWS,
which may lead to superior organisational performance (Combs et al., 2006). Although Chi
gen et al. (2015) have proposed that HPWS promotes information exchange among employees that prompts them to engage in creativity, they have not examined the direct effect of HPWS on employee creativity. Our study demonstrates that HPWS have a positive effect on employee creativity.

Second, we demonstrate the mediating role of perceived organisational support in the HPWS-employee creativity relationship. Previous studies have suggested that it is crucial to explore mechanisms through which HRM systems influence employee attitudes and behaviour (e.g. Shen et al., 2014). Partly motivated by this call to fill a gap in the literature, we propose and test a hypothesis regarding the influence of HPWS on employee creativity via perceived organisational support. The findings extend previous research on the relationship between HPWS and employee creativity (Chiang et al., 2015). In addition, our observation that employees regard HPWS as a manifestation of organisational support and reciprocate with creative behaviour provides further empirical evidence for social-exchange theory.

Third, to gain in-depth insights into the relationship between perceived organisational support and employee creativity, we explore the positive moderating role of devolved management. Guided by the interactionist perspective, we find that the interaction between perceived organisational support and devolved management influences employee creativity. This finding also adds to the literature on devolved management (Tang et al., 2015).

Fourth, this study contributes to the knowledge of HRM in China in general, which has become an important field of HRM research (Cooke, 2009). While a number of studies have highlighted the uniqueness of China as a context for people management due to its institutional and cultural characteristics (e.g. Cooke et al., 2014; Warner, 2008), recent studies have also shown that certain HPWS practices may have universal effect on the Chinese workforce, particularly the younger generation (e.g. Qiao et al., 2009; Shen et al., 2014; Zhang and Li, 2009). Our study demonstrates that the positive effect of HPWS, such as development-oriented HR practices, and organisational support is also evident in the Chinese context, at least in the companies which we have studied.

Practical implications
The findings of this study have implications for management practice. First, our study suggests that the implementation of an HPWS plays an important role in the generation of novel and useful ideas. Therefore, it is important for firms to inspire employee creativity by implementing HPWS. For example, by promoting extensive training, firms can help employees develop knowledge and skills necessary for creativity, and thus to generate more innovative ideas.

Second, we find that perceived organisational support mediates the relationship between HPWS and employee creativity. This finding indicates that perceived organisational support, which is enhanced by HPWS, inspires employee creativity. Accordingly, organisations should develop management practices to engender employees’ positive

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<th>Indirect effect</th>
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<th>95% Confidence interval</th>
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<tbody>
<tr>
<td>Simple paths for low devolved management</td>
<td>0.11</td>
<td>0.03</td>
<td>0.07</td>
<td>0.16</td>
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<tr>
<td>Simple paths for mean devolved management</td>
<td>0.14</td>
<td>0.03</td>
<td>0.10</td>
<td>0.19</td>
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<tr>
<td>Simple paths for high devolved management</td>
<td>0.16</td>
<td>0.04</td>
<td>0.11</td>
<td>0.24</td>
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Table IV. Indirect effects of HPWS (via perceived organisational support) on employee creativity at low, mean and high levels of devolved management
perception of organisational support to inspire employee creativity. Once HPWS has been implemented, employees should be encouraged to feel as supported as possible by their organisation, leading to more creative behaviour.

Third, our finding that devolved management contributes to employees’ positive perception of organisational support and employee creativity suggests that even when employees perceive high levels of organisational support, management approaches still have an important influence on creativity. Therefore, organisations should give employees more power and autonomy, rather than imposing external controls and constraints. As Cooke and Saini’s (2010) study revealed, the majority of managerial respondents from China and India believed that more autonomy and empowerment, amongst other HR practices, were needed from their firm for its HR strategy to support its innovation-oriented business strategy more effectively.

Limitations and future research
This study contains a number of potential limitations. The first relates to its finding that HPWS positively affects employee creativity. Although an HPWS is a bundle of HRM practices, the focus of the study is HRM content. Compared with HRM content, HRM processes are more difficult to imitate, and are thus more likely to create a sustained competitive advantage (Barney, 1991; Boxall and Steeneveld, 1999). In the past few decades, HRM researchers have turned their attention to HRM processes (e.g. Bednall et al., 2014; Bowen and Ostroff, 2004; Hauff et al., 2017). However, more studies are needed to broaden our understanding of the relationship between HRM processes and employee creativity.

Second, our study indicates that perceived organisational support only partially mediates the relationship between HPWS and employee creativity. Various other factors are responsible for mediating the relationship between HPWS and employee creativity. For example, a previous study showed that HPWS can promote information exchange, which fosters employee creativity (Chiang et al., 2015). Further examination of other mediating variables may provide a more comprehensive picture of the above relationship. Future research should thus examine other mechanisms through which HPWS promotes employee creativity.

Third, our study investigates the moderating role of devolved management in the relationship between perceived organisational support and employee creativity. This represents only a preliminary exploration of devolved management. Future research should pay more attention to devolved management, especially its antecedents and consequences.

Fourth, the generalisability of our findings is limited, as our study was conducted only in certain locations and industrial sectors in China. Future studies should attempt to replicate our conclusions in other contexts, both in China and outside, to generalise our findings. Finally, also methodologically, future study can consider or control other kinds of employee or supervisor personalities in examining factors or mechanisms boosting individual creativity.

Conclusions
This study contributes to the HRM literature by investigating the relationship between HPWS and employee creativity and the mechanisms underlying this relationship. The results indicate that HPWS enhances employees’ perception of organisational support, which in turn promotes employee creativity. In addition, devolved management is found to positively moderate the relationship between perceived organisational support and employee creativity.
References


**Further reading**


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