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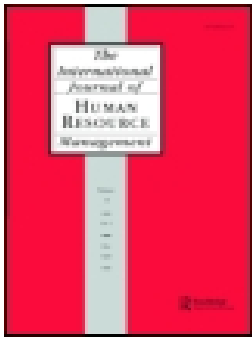
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Guanxi and high performance work systems in China: evidence from a state-owned enterprise

Huiping Xian^a, Carol Atkinson^b and Yue Meng-Lewis^c

^aManagement School, University of Sheffield, Sheffield, UK; ^bBusiness School, Manchester Metropolitan University, Manchester, UK; ^cBusiness School, Coventry University, Coventry, UK

ABSTRACT

Existing high performance work system (HPWS) research has rarely considered cultural influences. This study investigates the relationships between *guanxi*, HPWS and employee attitudes in China. A data-set consisting of 226 employees in a Chinese state-owned enterprise in the railway sector was used to test the hypotheses. Using structural equation modelling as an analytical tool, we found that *guanxi* was positively related to HPWS and trust. Similar to research in the Western context, HPWS was found to be positively related to trust and job satisfaction. Moreover, the results also revealed that HPWS mediated between *guanxi* and both trust and job satisfaction. Theoretical and practical implications are both discussed.

KEYWORDS

State-owned enterprises; high performance work systems; *guanxi*; Chinese cultural values; trust; job satisfaction

Introduction

In this article, we explore high-performance work systems (HPWS) in a Chinese State Owned Enterprise (SOE). Our specific aim is to investigate the influence of *guanxi*, an important feature of Chinese culture, on employee perceptions of HR practice and employee attitudes. As China's importance in the global market increases following its shift from a planned to market economy, much attention has been paid to the transfer of Western HRM practices to Chinese workplaces (Cai, Morris, & Chen, 2011). It is widely recognised that this transfer is not unproblematic (Cooke, 2005), especially in respect of cultural context and *guanxi* (Fu & Kamenou, 2011). *Guanxi* describes relationships that emphasise expected reciprocal social practices within a person's network of social connections (Hwang, 1987) and includes many traditional Chinese values, such as collectivism, family, interpersonal relationships, respect for age and authority, harmony and avoidance of conflicts (Wong, Wong, & Wong, 2010). As a kind of cultural logic (Cheung, Wu, Chan, &

CONTACT Huiping Xian  h.xian@sheffield.ac.uk

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Wong, 2009), *Guanxi* pervades throughout Chinese society and is prominent in workplace relationships (Warner, 2011). Despite individual level fluctuations (Lin, 2011), it has been demonstrated to be highly influential. Indeed, a recent discourse of 'Confucian HRM' highlights the persistence of traditional Chinese culture in the workplace (Cooke, 2009; Danford & Zhao, 2012; Li, 2013; Warner, 2011). MNCs, for example, adjust HR policies and practices in their Chinese subsidiaries to be compatible with the Chinese context and use 'hybrid' HR systems (e.g. Danford & Zhao, 2012; Fu & Kamenou, 2011). The emphasis thus far, however, has been on transfer of specific HR practices as opposed to broader HPWS.

A HPWS is a coherent and integrated bundle of HR practices that effects performance improvements via positive impact on employee attitudes (e.g. Macky & Boxall, 2007). Many studies have suggested that HPWS are linked to superior organisation performance in Western organisations, although there remain a number of unanswered questions. For example, employee perspectives are under-explored (Guest, 2011), better understanding of the influence of HR practices on attitudes is required (Macky & Boxall, 2007) and little is known about how HPWS operate beyond the Western context (Cai et al., 2011). Our research addresses all these questions. HPWS have been the subject of relatively limited attention in China (for early work see Mao, Song, & Han, 2013; Qiao, Khilji, & Wang, 2009), although Zhang and Llewelyn Morris (2014) and Mao et al. (2013) have provided broadly positive insights. Both, however, neglect cultural context and more nuanced exploration in Chinese research extends only to the role of demographic variables (Qiao et al., 2009), cultural distance (Kim, Wright, & Su, 2010) and *Hukou* (official household residential status) (Shen & Leggett, 2014). Existing research tends to be *in* context rather than *of* context (Kim et al., 2010, 78). Qiao et al. (2009) suggest that market reforms may have had more impact on HR systems than Chinese culture/history, although they suggest further study of cultural values. Similarly, Kim et al. (2010, 78) call for investigation of *guanxi* in SOEs, where more traditional management approaches are adopted than in many multi-national corporations (MNCs). SOEs remain an important feature of the Chinese economy, despite some decline, controlling more than half of the total industrial assets (Xu, 2010) and contributing about 30% of urban employment (OECD, 2009). Yet existing research has tended to focus on MNCs (Cai et al., 2011) and little is known about how Western HPWS operate in Chinese SOEs. Our research contributes in addressing this gap and arguing for integration of culture into HPWS theory. We also develop understanding of the influence of HPWS on attitudes (Macky & Boxall, 2007), amidst growing recognition of the role of employee attributions in understanding HR effectiveness in both the West (Nishii, Lepak, & Scheider, 2008) and China (Qiao et al., 2009).

Our research also makes important empirical contributions. First, we move beyond studies of MNCs to investigate SOEs which, as we note above, continue to comprise a substantial proportion of industrial assets and urban employment and where *guanxi*'s role here may be more pronounced. Second, we include employee

views, given the dearth of Western studies which do this (Guest, 2011). Chinese research has similarly privileged managerial perspectives and Cooke (2009) observed that two-thirds of Chinese HRM studies published in major business and management journals from 1998 to 2000 collected only managerial data. This creates potential for bias as ‘our understanding of HRM in China remains partial, from management’s lens’ (Cooke, 2009, 19). Finally, we contribute to practice in SOEs, arguing for recognition of the value of combining both formal HR practice with the relational aspects of *guanxi* in order to attract and retain talented employees in the increasingly competitive Chinese labour market.

In summary, we investigate employee perceptions of HR practice and employee attitudes in a Chinese SOE. We adopt a typical bundle of HR practices (Macky & Boxall, 2007) and explore the extent to which these mediate relationships between cultural context (*guanxi*) and employee attitudes.

Guanxi and people management in state-owned enterprises

Deeply rooted in Chinese cultural values, *guanxi* is a means to maintain mutual benefits, harmony and loyalty (Hwang, 1987) and has both cultural and institutional meanings (Huang, 2008). Culturally, *guanxi* is formed mainly through family ties but expands to include other social groups such as close friends and colleagues. *Mianzi*, (face or one’s reputation) often measures the strength of these relationships (Zhai, 2004). *Guanxi* is maintained and strengthened through the continuous exchange of *renqing*, a social norm of both emotional and material support to other in-group members (Li, 2013). In organisational life, *guanxi* is a dynamic process of individuals carrying out their work through building relationships over time (Bedford, 2011). *Guanxi* is thus a powerful institutional force that, we argue, merits exploration as different from Western concepts such as leader-member exchange. While it may share common elements, such as relationship building (Bedford, 2011) and maintenance of mutual benefits, harmony and loyalty (Hwang, 1987), it goes beyond these relational elements to incorporate favour-exchange practice (Li, 2013). It reflects a cultural need to protect ‘face’ via relationships (Zhai, 2004), again not recognised in Western literature.

Guanxi’s importance in Chinese workplaces is reflected by English terms of ‘employment relations’ and ‘industrial relations’ both translating into Chinese as ‘*laodong guanxi*’ (labour relations) (Zhu & Warner, 2000). *Guanxi* played a significant role in distributing scarce resources and opportunities under the pre-1990s Communist regime (Huang, 2008). Chinese SOEs endured strong state intervention, whereby HR policies and practices were strictly controlled (Cooke, 2005). Under the iron-rice-bowl employment system, workers were recruited to *danwei* (work units) and labour mobility was restricted by *hukou*. Wages were low and SOEs provided welfare, including housing, pension, health, childcare and even spousal employment (Warner, 2009). As workers largely remained in the same *danwei* throughout their working lives, *guanxi* was central to networks of

mutual dependence and creating a sense of obligation within the *danwei* community, crucial in obtaining resources and building long-term success (Tsui, Pearce, Porter, & Tripoli, 1997).

Despite maintaining job security and stability, the planned system was criticised for its bureaucracy and inflexibility (Cooke, 2005). Further, *guanxi* led to problems such as subjectivity and favouritism and was partially blamed for inefficiency and failure of many SOEs in the mid-1990s (Zhu, 2005). In considering China's need for economic rationalisation, Guthrie (1998) predicted that the role of *guanxi* would decline due to market competition. A number of researchers have, however, suggested that *guanxi* remains pervasive in SOEs. For example, Huang (2008) found use of *guanxi* networks was pronounced in the state sector where job-seekers use personal connections to obtain jobs in profitable SOEs. Moreover, *guanxi* still influences the superior-subordinate relationship and in Chinese workplaces attitudes, such as commitment, largely depend on this relationship (Wong et al., 2010). Huang (2008, 481) argues that 'state managers can engage in rent-seeking activities which advantage them personally, thereby creating room for *guanxi* influences in employment processes'. Cultural values are therefore pervasive in SOEs and *guanxi* may still be strong (Bedford, 2011; Cheung et al., 2009). Since the 1990s, SOEs have undergone transformation to enhance their competitiveness in the market economy. Among many changes has been an attempt to 'blend in' Western management methods (Danford & Zhao, 2012). Compared with the private sector, however, the state sector has been criticised as being less dynamic and more resistant to change (Gamble & Huang, 2008). It is important, therefore, to understand the operation of HPWS in SOEs.

Guanxi and HPWS

The lifelong employment and limited job mobility associated with the planned economy meant that labour markets only emerged in China in the post-1978 economic reforms. Greater competition amongst organisations, particularly for labour, led to the transfer of Western management practices including adoption of HPWS, that is, bundles of HR practices designed to improve organisational performance via positively influencing employee attitudes (Macky & Boxall, 2007). There is no definitive set of HR practices within a HPWS. A best practice approach argues for a 'one size fits all' bundle of practices, though bundle constitution is contested (Guest, 2011). Conversely best fit approaches argue for a bundle of HR practices designed to be contextually appropriate (Boxall & Purcell, 2000). We follow Qiao et al. (2009) and adopt a well-recognised bundle of practices (from Macky & Boxall, 2007), rather than seeking to address arguments of best practice or best fit. Indeed, emphasis has recently shifted from HR content to HR process, that is, understanding implementation and employee perceptions of HR practices (Shipton, Sanders, Atkinson, & Frenkel, 2016). This is particularly pertinent to our exploration of *guanxi*. In what follows, we theorise, drawing upon Purcell

and Hutchinson's 'causal chain' (2007), how *guanxi* influences perceptions of HR practice and the consequent influence on employee attitudes. This develops other Chinese studies of HPWS that are largely a-cultural (see, for example, Mao et al., 2013; Zhang, Zhu, Dowling, & Bartram, 2013) and responds to Kim et al. (2010) call for HRM research of Chinese context, particularly *guanxi*. Our research makes an important contribution to HPWS theory, developed in a Western context, in demonstrating that culture influences the causal chain that drives employee attitudes.

In what follows, we consider briefly, as it is well rehearsed elsewhere (Cooke, 2005), how *guanxi* might influence perceived HR practice. We then also consider how *guanxi* might influence employee attitudes. We do this in more detail given the relative paucity of research in this area (Qiao et al., 2009). We use this discussion to inform our research hypotheses.

HR practices

HR practices are predicated upon objective people management processes (Boxall & Purcell, 2000). Zhang and Llewelyn Morris (2014) frame this using Weber's work on formal versus substantive rationality. Formal rationality refers to operation via rules and procedures, the Western model where decisions are made through established HR practices impersonally applied to all. Substantive rationality, conversely, determines each case on its merits. Zhang and Llewelyn Morris (2014, 71) argue that this has dominated in China because of *guanxi* and its emphasis on personal connections: 'Chinese people are more used to relying on people's judgement and interactions than on regulations'. Increasingly, however, formal, official practices, and informal, personal relationships may overlap in an organisation (Chen, Chen, & Xin, 2004). Enacted HR practices may differ from espoused practices (Purcell & Hutchinson, 2007) and employee attributions as to the reasons for their enactment, for example, whether to support or exploit them, are increasingly recognised as important influences on employee attitudes (Nishii et al., 2008). Such attributions may be embedded in the personal relationships established via *guanxi*, leading us to argue that *guanxi* may have a positive impact on perceptions of HR practice, i.e. those with a high *guanxi* orientation may form positive attributions that HR practice is implemented to support them and have accordingly positive perceptions of HR practice.

To address these issues, we explore employee perceptions of a bundle of HR practices which comprises training and career, performance appraisal, employee involvement, pay and benefits and employment security (Macky & Boxall, 2007). This is a comprehensive set of practices, albeit it does not include recruitment. Like Macky and Boxall (2007), we argue that employees are not best placed to comment on the sophistication of recruitment practices. A substantial body of work considers the transfer of these practices to China and associated tensions, for instance, whether training and promotion are objectively allocated (formal

rationality) or dominated by *guanxi* management in SOEs (substantive rationality, Zhang & Llewelyn Morris, 2014), where people tend to find jobs in valuable positions through personal connections (Huang, 2008). Similarly, high level of *guanxi* may enhance perceptions of job security, as employees expect to be looked after and supported (Bedford, 2011). Involvement is another practice which may both facilitate communication between management and employees (Purcell & Hutchinson, 2007) and maintain harmony in the workplace, an important aspect of *guanxi*. For example, employees with high *guanxi* are more likely to form favourable perceptions of involvement programmes and their effectiveness, as they are more likely to have effective communication with and their views are more likely to be accepted and recognised by their peers and supervisors. We recognise that while there are many examples of HR practice being in line with central features of a *guanxi*-driven society, an emphasis on substantive rationality may also give rise to concerns such as subjectivity and favouritism (Zhu, 2005). On balance, however, we propose that:

Hypothesis 1: Guanxi will be positively related to employee perceptions of HR practice (PHRP).

Employee attitudes

HPWS are premised on HR practices effecting performance improvements through positive influence on employee attitudes (Guest, 2011). According to social exchange theory, the provision of, for example, employment security and training, is seen as organisational support for employees, which induces employee reciprocation in the form of positive attitudes (Macky & Boxall, 2007). Early Chinese research indicates positive attitudinal outcomes from HPWS (Mao et al., 2013; Shih, Chiang, & Hsu, 2013), Qiao et al. (2009) demonstrating, for example, a direct link between HR practice and employee commitment. Consideration of cultural context is, however, lacking.

Western attitudinal research's focus on commitment (Guest, 2002) is replicated in Chinese research (Gamble & Huang, 2008). There is, however, criticism in Western literature of commitment's dominance and a recognition that other attitudes require investigation (Atkinson & Hall, 2011; Macky & Boxall, 2007). Here we address two attitudes that are widely recognised as important, job satisfaction (Chang, Liangding, Takeuchi, & Cai, 2014; Kim et al., 2010) and trust (Searle et al., 2011). Job satisfaction is recognised as a key mediator between HR practice and positive organisational outcomes (Macky & Boxall, 2007) but is the subject of limited Chinese research (Mao et al., 2013; Zhang et al., 2013). Trust is also emerging as an important employee attitude and has been the subject of much recent Western research (for example, Searle & Dietz, 2012). While Kim et al. (2010) argue for its importance, research is again limited in the Chinese context (Zhang et al., 2013). Froese and Xiao (2012) argue that attitudinal antecedents may differ between China and the West and we contribute in exploring both the

influence of *guanxi* and HR practice upon these two attitudes and whether HR practice mediates *guanxi*/attitudinal relationships.

We turn first to job satisfaction. In Western research, relationships between HR practice and job satisfaction are well-established (Macky & Boxall, 2007). There is limited Chinese research, albeit Mao et al. (2013) argue that HR practices and job satisfaction are strongly positively correlated. We anticipate here that HR practice/job satisfaction relationships demonstrated in Western research will equally apply in China. Current Chinese research has paid limited attention to between *guanxi*/job satisfaction relations. However, according to Cheung et al. (2009), employees who maintain good *guanxi* with supervisors find it easier to meet job requirements. Further, while not limited to SOEs, Zhai, Lindorff, and Cooper (2013) have demonstrated that *guanxi* has a positive relationship with job satisfaction. We argue that *guanxi*, with its emphasis on collectivism is likely to be influential, particularly in SOEs, as job satisfaction is related to employees' perceived status of membership in work networks (Hui & Graen, 1997). Such status can be reflective of a close relationship between colleagues, which *guanxi* promotes. Moreover, *guanxi* provides informal channels in daily problem solving (Bedford, 2011). We might then expect *guanxi* to positively influence job satisfaction.

We also expect that HR practice will mediate between *guanxi* and job satisfaction. As we noted above, *guanxi* might favourably influence employee perceptions of training and career (Huang, 2008), job security (Bedford, 2011) and involvement (Purcell & Hutchinson, 2007). These HR practices will positively influence job satisfaction. As also noted, *guanxi* has the potential to create favouritism or unfairness. Here, we argue that the formal rationality delivered via HR practice will regulate workplace behaviours, and provide a link between the positive relational aspects of *guanxi* and job satisfaction. Moreover, *guanxi* will positively contribute to job satisfaction through employees' positive perceptions of HR practice, as employees possessing a favourable reciprocal relationship with colleagues are likely to perceive positive aspects of HR practices which will inform positive perceptions about how they are treated at work. *Guanxi* may thus have both a direct and indirect effect on job satisfaction via PHRP.

We hypothesise that:

Hypothesis 2: Guanxi will be positively related to job satisfaction.

Hypothesis 3: PHRP will be positively related to job satisfaction.

Hypothesis 4: PHRP mediate the effect of guanxi on job satisfaction.

Second, we consider trust. We explore trust at the organisational level, reflecting employee perceptions of systems and processes (Searle & Dietz, 2012), here HR practices. Trust has been demonstrated to be important in HPWS in effecting performance improvements (Macky & Boxall, 2007) and in reducing turnover intentions (Wong et al., 2010). In Western research, design and implementation of HR practice has been demonstrated to be highly influential in shaping organisational trust (Searle & Skinner, 2011). One Chinese study supports this, demonstrating

relationships between job security practices and trust; in the absence of these practices and where job insecurity prevails, employee confidence in the employer's intention to protect their best interests is reduced, the psychological contract is open to breach and trust reduces (Wong et al., 2010). We argue that HR practice/trust relationships demonstrated in Western research will also apply in China.

Current Chinese research has paid little attention to relationships between *guanxi* and organisational trust. Empirical data are limited and we seek to add to this body of knowledge. *Guanxi* has been presented as form of interpersonal trust in associates. Wong et al. (2010) and Han, Peng, and Zhu (2012) for example, demonstrate that strengthened *guanxi* with supervisors facilitates organisational trust and Bedford (2011) arrives at the same finding for co-workers generally. We argue that *guanxi* will influence relationships with a wide range of organisational associates to create a trusting climate and so we expect positive relationships between *guanxi* and organisational trust. Finally, we consider how HR practice might mediate the *guanxi*/trust relationship. There is limited extant research but, as with job satisfaction, we suggest that *guanxi* will positively influence employee attributions about HR practice such as training and career (Huang, 2008) job security (Bedford, 2011) and involvement (Purcell & Hutchinson, 2007). Positive attributions about and experiences of HR practices, that is, these practices serve to support employees, will then increase organisational trust whereby employees perceive the employer to have their best interests at heart. HR practice, based in formal rationality with emphasis on fairness of process, may provide a bridge between *guanxi*, based in substantive rationality, and trust.

Building on the above, we hypothesise that:

Hypothesis 5: Guanxi will be positively related to trust.

Hypothesis 6: PHRP will be positively related to trust.

Hypothesis 7: PHRP mediate the effect of guanxi on trust.

The conceptual model of the proposed relationships is presented in Figure 1.

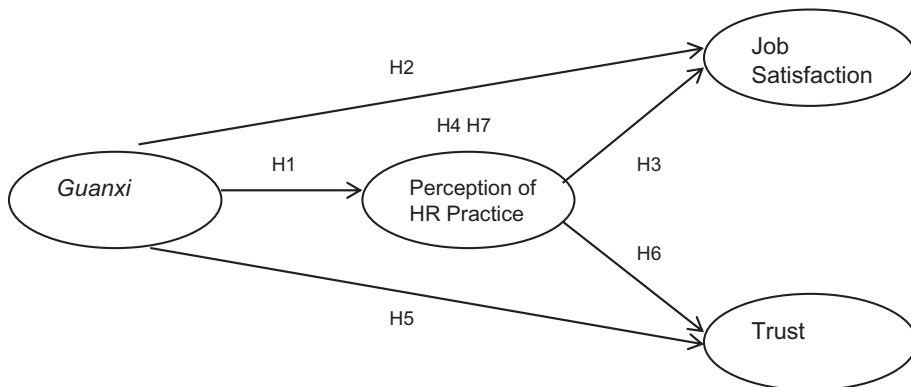


Figure 1. The proposed conceptual model.

Method

Research design and sample

Data were collected using a survey-based questionnaire. To ensure the accuracy of measures in the Chinese version, all questions were translated by a Chinese researcher and verified by another Chinese researcher in the team. Questions and translations were discussed with our SOE contacts, so that the measures were comprehensive and context-appropriate. We also had our final version of Chinese survey back-translated to English by a bilingual research assistant to assure translation equivalence (Mullen, 1985). We took three steps to reduce the potential of social desirability bias. First, the survey was self-administered, thus minimising the respondents' uneasiness in facing an interviewer. Second, we assured respondents that their data was anonymous and confidential. Finally, we employed a six-point Likert scale to prevent the Chinese tendency of selecting the mid-point.

Our research was conducted in two branches of a SOE railway company located in two South-western cities. The railway sector is appropriate as it is one of the largest sectors still owned by the State and has been modernising its employment practices in recent decades. We gained access through a senior manager referring us to two HR managers who agreed to email our survey to 300 randomly selected employees (from a total of 612 in the two branches). The SOE employs more than 6000 employees nationwide. We received 235 email survey responses generating a valuable data-set on under-researched Chinese employees (Qiao et al., 2009). Nine questionnaires were excluded because of missing information or unusual answers. The final sample consists of 226 employees, representing a 75% response rate. 59.7% were male and 40.3% were female, around half had worked for the company for at least 7 years and 61% were aged between 30 and 40. The majority (81.9%) held a bachelor's degree or higher and 80.5% occupied non-managerial positions. Overall, the sample comprised relatively young employees who were highly educated and had a medium-length tenure at the company.

Measures

Historically, most research measures HPWS using espoused rather than enacted practices (Guest, 2002). Gathering data from employees enabled us to explore their perceptions of how practices operated (Nishii et al., 2008). We captured perceptions of HR practice (PHRP) using sixteen items developed by Macky and Boxall (2007). While originally four items had a Yes/No response format, we adapted the questions to enable a Likert scale response. All items have been aggregated into a scale, PHRP (Cronbach's alpha.88; see Appendix A, Table A1 for items), and used as our HPWS measure. We used Taormina and Gao's (2010) five-item *Guanxi* Favour Factor to measure the employees' *guanxi* orientation (Cronbach's alpha .86; see Appendix A, Table A2 for items). Perceived Organisational Trust was measured

using a 10-item scale originally developed by Searle et al. (2011) (Cronbach's alpha.92). Sample items include 'This organization does things competently' and 'Power is not abused in this organization.' A 6-item scale of Job Satisfaction is adopted from The 2011 Workplace Employment Relations Study (WERS, 2011) (Cronbach's alpha.89). Sample items include 'I have a sense of achievement from my work' and 'I have influence over my job'. As noted above, Chinese samples tend to have a bias towards the central point (Hui, Lee, & Rousseau, 2004), so all the above measures were assessed with a six-point Likert scale ('Strongly disagree' (1) to 'Strongly agree' (6)) to shift respondents' attention away from the mid-point.

Results

Construct measurement

Measurement scales were first subject to Exploratory Factor Analysis with SPSS 19.0. Principle component factor analysis with oblique rotation (direct oblimin) was used since the factors were expected to be correlated. The EFA results confirmed the factor structure in the proposed model. At this stage, poorly performing items (i.e. low item-total correlations, high inter-item correlations or cross-loading items) were eliminated. During item removal tests, we considered 'the trade-off between the number of scale items (for face validity or construct coverage) or measurement scales that perform well and discriminate' (Farrell, 2010, 326). 28 of the 37 items were retained, comprising 4 factors, which is consistent with the proposed measurement structure. Most items were removed from the HPWS measure, where 16 items were reduced to 7 (Appendix A, Table A1). This perhaps reflects the original use of these items in an index, where no association or correlation is presumed, rather than a scale. EFA results are available from the authors on request.

The psychometric properties of the constructs were examined by Confirmatory Factor Analysis with AMOS 19.0. The CFA results for the 28-item model in the EFA solution did not demonstrate good model fit ($\chi^2/\text{d.f.} = 3.80$, IFI = .79, TLI = .77, CFI = .79, RMSEA = .11) and a number of attempts were made to improve fit. Two items were removed either due to a low loading on the intended factor or high cross-loadings on other factors. We also correlated the error terms with high modification indices and the error terms were added one at a time. The CFA was repeated on the modified 26 item models. The resulting fit indices for this modified model showed improved fit and all indices are adequate ($\chi^2/\text{d.f.} = 2.56$, IFI = .90, TLI = .88, CFI = .90, RMSEA = .08).

The mean value for *guanxi* was very positive (mean = 4.77; SD = .90), indicating that it is still influential in Chinese SOEs. Employees also reported positive perceptions of HR practice (mean = 4.03; SD = .99) suggesting their existence and effective implementation. Employees demonstrated a relatively high level of organisational trust (mean = 3.83; SD = .97), indicating that confidence in systems and

processes. They were also largely satisfied with their current jobs (mean = 3.69; SD = .96), although this was closer to the neutral point on a 6-point scale.

The validated measures showed good internal consistency and reliability via Cronbach's alpha. Composite reliability was calculated based on the standardised indicator loadings and measurement errors of each construct. All the constructs had composite reliability values greater than the recommended level of .75 (See Table 1). Validity of the measures was assessed by the critical ratios (CRs) and the average variance extracted (AVEs). All of the constructs' indicators met the recommended criteria, where the CRs were larger than 2.00, statistically significant at the .05 level (Bollen, 1989). Moreover, all constructs had AVE values higher than .50, demonstrating good convergent validity (Fornell & Larcker, 1981). Generally measurement scales showed adequate *discriminant validity*, except that the correlation between HR performance and trust was larger than .85 (Brown, 2012). Although further removal of cross-loading items or combining the two constructs could improve discriminant validity, we did not consider this appropriate owing to construct coverage concerns and the theoretical sense of the constructs under investigation (Farrell, 2010).

Structural model assessment and test of hypotheses

The model was tested using structural equation modelling (SEM) to examine the hypothesised relationships. The fit indices of the structural model were acceptable. $\chi^2/\text{d.f.} = 2.57$, IFI = .90, TLI = .88, CFI = .90, RMSEA = .08. To test the mediating effect of PHRP in the relationships between *guanxi* and job satisfaction and *guanxi* and trust, we used the bootstrapping bias-corrected confidence interval procedure in AMOS (Preacher & Hayes, 2008; Zhao, Lynch, & Chen, 2010) rather than the widely used causal steps approach for testing mediation (Baron & Kenny, 1986), which has a number of limitations (Hayes, 2009). For example, the strength of measuring mediation relies on the size of the indirect effect, rather than the lack of the direct effect and a significant total effect of the independent variable on the dependent variable is not necessary for establishing mediation. Further, the Sobel test is low in power compared with the bootstrapping approach recommended by Preacher and Hayes (2004), is rarely used in SEM and is only effective in

Table 1. Results of measurement model.

Constructs	α	CR ^a	AVE	Mean	SD	N ^b	Guanxi	PHRP	Trust
Guanxi	.86	.85	.62	4.77	.90	4			
PHRP ^c	.88	.81	.52	4.03	1.00	7	.70 ^c		
Trust	.92	.88	.55	3.83	.97	9	.71 ^c	.90 ^c	
JS	.89	.85	.58	3.69	.96	6	.58 ^c	.82 ^c	.80 ^c

Note: N = 226.

^aComposite reliability.

^bNumber of items in each validated measure.

^cCorrelations: all are significant at the .01 level.

^dPHRP = perceptions of HR practice.

large samples. Bootstrapping, a ‘nonparametric’ way of computing a sampling distribution, has been recommended as a more powerful method of testing mediation effects (Preacher & Hayes, 2008). In this study, 1000 bootstrap samples were used and the bias-corrected percentile approach generated 95% confidence intervals. Overall, the proposed direct effects H1 ($\beta = .74, p < .01$), H3 ($\beta = .89, p < .01$), H5 ($\beta = .14, p < .05$), and H6 ($\beta = .83, p < .01$) were accepted, and H2 ($\beta = -.02, NS$) was rejected (Table 2). The direct effect of *guanxi* on job satisfaction was non-significant, but there were positive and significant direct effects of *guanxi* on both HR practice and trust. Both proposed mediating effects, *guanxi* on job satisfaction and on trust, respectively, via HR practice, were positive and significant at the $p < .05$ level, therefore H4 and H7 were accepted. HR practice partially mediated the relationship between *guanxi* and trust and fully mediated the relationship between *guanxi* and job satisfaction.

Discussion

While research into HPWS in China is developing, most studies have neglected the role of cultural context. Moreover, research has focused on MNCs and has privileged managerial perspectives. To fill these gaps, we have drawn on employee responses to investigate the influence of *guanxi* on both perceptions of HR practice and employee attitudes in a Chinese SOE. Using SEM as an analytic tool, we demonstrate the direct effects of HR practice on job satisfaction and trust and of *guanxi* on trust, as well as the indirect effect of *guanxi* on both job satisfaction and trust through HR practice. Here we discuss these results.

Our analysis of employee perspectives is important in demonstrating that *guanxi* is still deeply embedded in the Chinese workplace, alongside largely positive employee perceptions of HR practice. *Guanxi* has a positive and significant direct effect on perceived HR practice. This supports our argument that *guanxi* and HR practice effectively combine both formal and substantive rationality (Zhang

Table 2. Assessment of research hypotheses by the structural model.

		Bootstrap bias-corrected method 95% CI				
		Unstandardised estimates	SE	Lower	Upper	p-value
Direct effects						
H ₁	Guanxi → HR practice	.74	.08	.57	.94	.00
H ₂	Guanxi → Job satisfaction	-.02	.08	-.25	.21	.85
H ₅	Guanxi → Trust	.14	.06	-.02	.34	.03
H ₃	Perception of HR practice → Job satisfaction	.89	.10	.70	1.13	.00
H ₆	Perception of HR practice → Trust	.83	.09	.64	1.05	.00
Indirect effects						
H ₄	Guanxi on job satisfaction via perception of HR practice	.66	.11	.47	.92	.00
H ₇	Guanxi on trust via perception of HR practice	.61	.10	.44	.84	.00

& Llewelyn Morris, 2014), as the relational nature of *guanxi* serves to support positive employee attributions about the implementation of formal HR practice (Nishii et al., 2008). *Guanxi* is perceived as maintaining mutual benefit and harmony (Hwang, 1987) while HR practice within a mutual gains model serves to deliver beneficial employee outcomes e.g. training, high pay and interesting work (Guest, 2002). Fu and Kamenou (2011) support this in finding both that Chinese employees highly valued good *guanxi* with their colleagues and managers and that they tended to discuss personal goals, training opportunities and career development plans on a personal rather than professional basis. Therefore, *guanxi* may be crucial to the implementation of HPWS in China via combining formal and substantive rationality. This raises questions over Qiao et al.'s (2009) assertion that market reforms have had more impact on HR systems than Chinese culture.

In exploring employee attitudes, we found that trust was fairly high and job satisfaction was above the scale mid-point, although the lowest scored of all the constructs. A possible explanation for this is that collectivism still dominates in China and individual achievement and satisfaction are often suppressed to prioritise group success and achievement (Hui & Graen, 1997). However, our respondents were young and highly educated and likely to privilege job satisfaction to some extent. HRM scholars in both the West and China have argued that bundles of HR practices can enhance employee attitudes (Guest, 2002; Macky & Boxall, 2007; Qiao et al., 2009) and our findings support this. We found that perceptions of HR practice had significant and direct effects on trust (Searle & Skinner, 2011) and job satisfaction (Macky & Boxall, 2007). This suggests that formal Western HR practices focusing upon training, career, appraisal, involvement and employment security were well-received in this Chinese SOE. This confirms Qiao et al.'s (2009) observation that since the collapse of the iron rice bowl system, Chinese employees' attitudes towards work have changed: they expect fair treatment (Chen et al., 2004) and interesting jobs, unlike those often allocated via the *danwei* system. Formal, Western HR practices (e.g. merit and performance based promotion and involvement) are central to delivery of this treatment and job design. Our research, while consistent with Western literature, is important in confirming the importance of attitudes such as job satisfaction and trust in the Chinese context.

Turning to *guanxi*, we found that it had a positive and significant direct effect on trust, but that it had no significant direct effect on job satisfaction. We argue that *guanxi*, with its base in interpersonal trust with both managers (Cheung et al., 2009) and co-workers (Bedford, 2011), is influential in establishing organisational trust. This is because Chinese employees see managers as representatives of the organisation (Wong et al., 2010) and this relates to their implementation of organisational policies and practices. Our results, however, suggest that *guanxi* alone does not lead to job satisfaction, not at least in the Western individualised sense. *Guanxi* reflects the collectivist dimension of Chinese culture, which priorities group harmony and success over individual achievement. (Tsui et al., 1997). This

could be particularly the case in SOEs, which provide better employment security but more limited career development opportunities (Gong, Chang, & Cheung, 2010). Moreover, the lack of direct effect between *guanxi* and job satisfaction could be explained by some of its negative effects, for example, favouritism and the time-consuming nature of developing and maintaining *guanxi*. It is possible then that Chinese employees enjoy a supportive working environment through *guanxi* development, such as day-to-day favour exchange, without these relationships enhancing job satisfaction.

Finally, perceptions of HR practice had positive and significant mediating effects between *guanxi* and trust (partial mediation) and between *guanxi* and job satisfaction (full mediation). As we note above, *guanxi* independently influences trust relationships but perceptions of HR practice further enhance these. *Guanxi*/job satisfaction relationships, however, exist only where mediated by perceptions of HR practice and a higher level of *guanxi* may thus reinforce positive HR practices and then lead to positive job satisfaction. *Guanxi*, based in substantive rationality, thus has clear relationships with the formal rationality (Zhang & Llewelyn Morris, 2014) which is applied in the implementation of HR practice to positively influence these important employee attitudes. As discussed earlier, *guanxi*, with its emphasis on constant exchange of *renqing* between in-group members, has often been linked to negative practices, such as favouritism and subjectivity (Bedford, 2011; Chen et al., 2004). HR practice, on the other hand, has a strong focus on transparency and neutrality in decision-making (Boxall & Purcell, 2000). We argue that the transfer of HR practice has helped to reduce some of the problems associated with a *guanxi*-driven approach to people management, by building a fairer, more transparent workplace and creating positive employee attributions (Nishii et al., 2008). Hence, we see that perceptions of HR practice partially or fully mediate *guanxi*/trust relationship and *guanxi*/job satisfaction relationships. We suggest that this again relates to the beneficial effects of formal rationality and the capacity of this, when combined with substantive rationality, to enhance important attitudes such as job satisfaction.

This study has limitations. First, the sample consists of only employees from a single SOE from one industry and the respondents are relatively young and well-educated, which is not representative of the SOE worker population. Second, this study may suffer from both single-source bias and its cross-sectional nature. Future research, possibly longitudinal, could examine employees across different organisations, regions and industries in the state-owned sector to increase the generalisability of findings. Third, our employee focus meant that we were unable to collect data on organisational outcomes, such as turnover and profit. This study has not included firm-level financial performance aspects of HPWS research that has received much attention in Western HPWS literature. Future multi-level research could include these additional variables to see whether *guanxi* influences these relationships in Chinese SOEs.

Conclusions

We conclude that, while Western-style HPWS can be effective in China, recognition of cultural context is vital: *guanxi* and HR practice are both important in influencing attitudes related to improved organisational outcomes. Our research makes three contributions. First, we contribute to theory in developing the body of knowledge on HPWS, mainly in introducing consideration of cultural context. Current strategic HRM (SHRM) theorising outlines a ‘causal chain’ in which perceptions of HR practice and employee attitudes mediate the relationship between espoused HR practice and performance outcomes (Purcell & Hutchinson, 2007). Employee attributions about HR practice are acknowledged as important within this (Nishii et al., 2008). This theory has, however, been developed in a Western context (Cai et al., 2011) and, even where applied in China, has not integrated consideration of culture (Kim et al., 2010; Mao et al., 2013). We demonstrate that traditional cultural values, here *guanxi*, are still influential in modern China and that they influence operation of HPWS. We argue that SHRM theory should recognise and adopt culture as a key element of the causal chain. Further, we draw here on Warner (2009) who notes the Chinese belief-system is complex and able to accommodate what often appear to be competing notions, although these may in fact be complementary. Our findings largely confirm the on-going discussion of ‘Confucian HRM’, which argues that traditional Chinese cultural values coexist with new values imported from Western HR policies and practices (Warner, 2011). Here, *guanxi* and HR practice effectively combined both formal and substantive rationality to effect positive employee attitudes. We thus argue that SHRM researchers should, in developing theory that is currently a-cultural and reliant upon the principles of formal rationality, recognise the role of substantive rationality. A secondary theoretical contribution (within, but not limited to, HPWS) is that attitudinal antecedents may differ between China and the West (Froese & Xiao, 2012) and we demonstrate the role of *guanxi* in creating positive employee attitudes.

Second, we make two empirical contributions. We conduct our research in the under-explored SOE sector to develop understanding beyond MNCs. We demonstrate the on-going importance of *guanxi* in this context and suggest that Chinese SOEs are unlikely to rely upon Western HRM practices in isolation. We also evidence the relevance of trust and job satisfaction. Our findings point to a ‘societal fit’ (Boxall & Purcell, 2000), where HRM strategies and policies are developed based on the need of the business (e.g. market competition and pressure for modernisation) and cultural factors (e.g. *guanxi*). This combination may be more pronounced in SOEs than MNCs, given the former’s lesser exposure to Western influences. We argue that both *guanxi* and HR practice serve one important aspect of the Chinese culture, that is, to develop and maintain harmony in Chinese workplaces, while also underpinning fairness and trust. Through HRM practice, *guanxi* may be effectively improving performance and competitiveness of

SOEs in the market economy. A further empirical contribution is that we present *employee* responses, countering the typical privileging of managerial perspectives and responding to a growing recognition of the role of employee attributions in understanding HR in both the West (Nishii et al., 2008) and China (Qiao et al., 2009). We demonstrate the importance that employees attach to both *guanxi* and HR practice, as it is implemented rather than simply espoused. Our employee focus also indicates a lesser role for job satisfaction than might be expected based on Western literature. This raises the question of the extent to which constructs developed in the individualist societies can be used in a collectivist context. We echo Froese and Xiao's (2012) call for more studies to develop indigenous attitudinal measures in non-Western cultures.

Our third contributions are to practice. First, our findings suggest that HPWS positively influence trust and job satisfaction in Chinese employees, which are attitudes that are important to improve organisational outcomes. HR practitioners in this context are thus advised to build HR strategy around bundles of HR practice in the same way as their Western counterparts. Context will be important however: Chinese employees are only likely to demonstrate positive attitudinal responses if they believe the importance of such practices (Warner, 2011) and *guanxi* management is central to the formation of positive attributions. Second, managers should be mindful of deeply embedded cultural values (e.g. *guanxi*), which is unlikely to be 'ironed out' easily, as we demonstrate here. While employees in MNCs have been seen to demonstrate a high level of individualism (Froese & Xiao, 2012), in our study, employees in SOEs appreciated *guanxi* in the workplace. However, while *guanxi* positively impacts upon trust, it only influences job satisfaction via HR practice in our sample of young and well-educated Chinese employees. Practitioners are advised to adopt bundles of HR practices, including employee involvement, training, performance appraisal and career development, to increase job satisfaction and reap organisational benefit. Third, practitioners in SOEs should recognise the value of combining both formal HR practice with the relational aspects of *guanxi* in order to both attract and retain talented employees in the increasingly competitive Chinese labour market. Finally, our results are likely to have relevance in other cultural contexts that are heavily dependent on relational networks, e.g. Italy (Di Nicola, 2011), and practitioners there may find them of benefit.

Disclosure statement

No potential conflict of interest was reported by the authors.

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Appendix A.

Table A1. PHRP (HPWS) scale (7 items).

My work requires me to work closely with other members of a team to achieve a common goal or results target.
My job performance has been formally appraised by my manager or supervisor regularly.
Appraisal of my performance is fair and accurate.
I receive regular and constructive feedback on how well I do my job.
Management keeps me well informed about the firm and how well it is doing.
My employer has a formal policy of avoiding compulsory redundancies.
I have a job description that accurately describes the work I do.

Adapted from Macky and Boxall (2007).

Table A2. Guanxi scale (4-items).

My associates can rely on me to do favours for them.
I think it is important to return a favour to an associate.
I am appreciated for favours I do for my associates.
Favours I did for my associates have built good relationships with them.

Adapted from Taormina and Gao (2010).