

Staying and Performing: How Human Resource Management Practices Increase Job Embeddedness and Performance

Introduction

Over the past decade, job embeddedness theory (JET, Mitchell *et al.*, 2001) has been the focus of considerable empirical research (Jiang *et al.*, 2012c; Lee *et al.*, 2014). JET describes a set of social, psychological and economic forces operating in and around the job that act “like a net or a web in which an individual can become stuck” (Mitchell *et al.*, 2001: 1104). The stronger these embedding forces, it is argued, the less likely one is to quit (Mitchell *et al.*, 2001). Job embeddedness has also been found to influence other important work-related behaviours such as job performance (Lee *et al.*, 2004; Sekiguchi *et al.*, 2008), absence (Lee *et al.*, 2004), and innovative work behaviour (Ng and Feldman, 2010b).

Despite the bulk of evidence indicating that job embeddedness has a beneficial impact upon employees’ work behaviour, surprisingly little is known about how organisations can promote greater embeddedness amongst employees (Lee *et al.*, 2014). Although Mitchell *et al.* (2001) suggested that organisations should seek to use their human resource management (HRM) practices to foster the development of job embeddedness, only a handful of studies have sought to examine this relationship to date (Bambacas and Kulik, 2013; Bergiel *et al.*, 2009).

In this paper, we address three significant gaps in the literature linking HRM and job embeddedness. First, we observe that those few studies that have been conducted into how HRM potentially shapes job embeddedness omit a crucial dimension of HRM practice, specifically that concerned with increasing the opportunities employees have to perform. Recent theorising on the links between HRM and performance suggests that ‘high performance’ HRM systems comprise three subsystems or bundles of HRM activity, commonly referred to as ‘ability/skill-enhancing’, ‘motivation-enhancing’, and ‘opportunity-

enhancing' practices (Jiang *et al.*, 2012b; Lepak *et al.*, 2006). Although researchers have considered associations between selected HRM practices that are representative of ability- (e.g. training) and motivation-enhancing (e.g. compensation) (Bambacas and Kulik, 2013; Bergiel *et al.*, 2009), they have so far overlooked opportunity-enhancing HRM practices. This includes a range of employee involvement and empowerment practices that could reasonably be considered as potential determinants of both job embeddedness and job performance.

Second, we note that theory and research linking HRM and employee performance has yet to consider the role of job embeddedness as an intervening mechanism. Indeed, studies linking HRM and job embeddedness have focused solely on employee turnover as the distal mediated outcome (Bambacas and Kulik, 2013; Bergiel *et al.*, 2009; Hom *et al.*, 2009). This is despite the fact that JET has been used to explain not just "why people stay", but also "why people perform" (Burton *et al.*, 2010; Lee *et al.*, 2004; Sekiguchi *et al.*, 2008).

Third, while job embeddedness was originally conceptualised as a multi-dimensional construct (Mitchell *et al.*, 2001), studies have almost universally relied on a single aggregated measure of embeddedness (e.g., Sekiguchi *et al.*, 2008). However, recent reviewers have argued that it is important to disaggregate the job embeddedness measure into its dimensions when considering its impact, as the 'fit', 'links' and 'sacrifice' elements of job embeddedness logically have different managerial antecedents and may differentially impact on consequences, such as attachment behaviour and performance (Jiang *et al.*, 2012b; Lee *et al.*, 2014; Zhang *et al.*, 2012).

Directly addressing these theoretical issues, our study seeks to advance the job embeddedness literature by examining the impact of employees' perceptions of HRM practices on job embeddedness at the dimensional level and, in turn, employees' job performance. We thus make two key contributions to the HRM and job embeddedness literatures. First, we propose that (a) ability-, (b) motivation-, and (c) opportunity-enhancing

HRM practices will directly influence employees' feelings of job embeddedness. By simultaneously examining the pathways that exist between the three HRM bundles and job embeddedness dimensions, we provide a more comprehensive perspective on how organisations can capitalize on these mechanisms, by identifying targeted HRM practices as they impact different embeddedness components. Second, we extend the scope of the ability-motivation-opportunity (AMO) framework of HRM by proposing that job embeddedness dimensions act as important mediators in the HRM–individual job performance relationship. Thus, we provide additional insights into how HRM practices help promote better job performance, specifically by ensuring that employees (a) are a good fit to the job, (b) feel connected to others within the organisation, and (c) would have to give up things of value if they left.

Next, we present our theoretical model, discuss the methods we use to test our predictions, and report our findings. We conclude by discussing the theoretical and practical implications of our findings and propose possible directions for future research.

Theoretical background

Job embeddedness

Mitchell et al. (2001) suggest that employees who are exposed to more of these restraining forces become increasingly embedded in their current job and, as a consequence, are less likely to voluntarily exit the organisation. The original conceptualization of job embeddedness included two dimensions,¹ organisation and community embeddedness, with each dimension further categorized into three independent components: fit, sacrifice and links. Fit is defined as “an employee’s perceived compatibility or comfort with an organisation” (Mitchell *et al.*, 2001, p. 1104); the better the fit, the greater the likelihood that employees will feel

¹ Ramesh and Gelfand (2012) expanded this original conceptualisation to include a new dimension, family embeddedness, which comprises the three facets of fit, sacrifice and links.

professionally and personally tied to their employers. Links are the “formal or informal connections between a person and institutions or other people” (Mitchell *et al.*, 2001, p. 1104).

The more links that connect an employee with other people in his or her web, the more the employee becomes “stuck” or rooted in the job and the organisation because leaving the organisation might involve cutting or rearranging those personal ties. Sacrifice is characterized as “the perceived cost of material or psychological benefits that may be forfeited by leaving a job” (Mitchell *et al.*, 2001: 1104-1105). Thus, financial (e.g. high pay or attractive benefits) and psychological (e.g. loss of organisational support) losses that would be incurred by quitting potentially deter turnover.

Although originally used as one overall job embeddedness construct by Mitchell *et al.* (2011), much subsequent research separates it into its two major dimensions, namely, organisational and community embeddedness (Jiang *et al.*, 2012c; Lee *et al.*, 2014). Organisational embeddedness focuses on aspects of the organisational environment that embed the individual, whereas community embeddedness focuses on aspects of the community that embed the individual in their job (Mitchell *et al.*, 2001). Because our study examines firm level HRM practices, with job performance as the criterion measure, we used organisational embeddedness as the focal variable for this study.

Within the job embeddedness literature, several reviews call for studies to disaggregate the measure into its constituent dimensions (Jiang *et al.*, 2012c; Lee *et al.*, 2014). Lee *et al.* (2014, p. 14) remark that “only a handful of studies examine the separate dimensions of links, fit, and sacrifice... much can be learned from studying these components, especially that researchers often find different relationships across these dimensions and across samples”. For example, Ramesh and Gelfand (2010) found that embeddedness dimensions are differentially predictive between India and the United States; the fit dimension was a better predictor in the US, whereas the links dimension was a better predictor in India. Given such

evidence and rising calls to disaggregate the job embeddedness measure, we examine the impact of HRM on the fit, sacrifice and links components, and in turn, on job performance.

Job embeddedness and employee performance

Although job embeddedness has been studied primarily as an “anti-withdrawal” construct affecting voluntary turnover, research has shown that it can also have an impact upon job performance, including both task performance and organisational citizenship behaviour (OCB, Burton *et al.*, 2010; Lee *et al.*, 2004; Lev and Koslowsky, 2012). Of the two original dimensions of job embeddedness, research suggests that organisational embeddedness is a better predictor of job performance than community embeddedness (Lee *et al.*, 2004; Sekiguchi *et al.*, 2008).

Several reasons have been advanced for the observed embeddedness-job performance relationship. First, it is suggested that people with high levels of organisational embeddedness will tend to be motivated to perform through concern “that lower job performance may endanger the status of being employed and/or attached to their jobs” (Lee *et al.*, 2004, p. 714). Second, Sekiguchi *et al.* (2008) have argued that employees who are involved in and tied to projects and people (i.e., links), who feel well-suited to their jobs and able to apply their skills (i.e., fit), and who believe they would relinquish valued things if they quit (i.e., sacrifice), are also likely to feel motivated to perform well. Third, Wheeler and colleagues (Halbesleben and Wheeler, 2008; Harris *et al.*, 2011; Wheeler *et al.*, 2012) have used conservation of resources theory to conceptualise job embeddedness as a state of abundant resources. They argue that job embeddedness promotes performance through the extra resources enjoyed as a result of being embedded in the job (e.g., better access to job advice and assistance). Other, as yet unexplored, theoretical mechanisms that might account for a positive embeddedness-

performance relationship include escalation of commitment (Staw, 1981), and the desire for cognitive consistency (Feldman, 2013). Thus, we hypothesise the following:

Hypothesis 1: On-the-job fit (a), sacrifice (b), and links (c) are positively related to employees' job performance.

High-performance HRM practices and job embeddedness

Empirical research has shown that particular bundles and/or configurations of HRM practices contribute to: (1) positive individual level outcomes such as greater employee commitment and satisfaction, better task performance and OCB (e.g., Kehoe and Wright, 2013); and (2) desirable organisational outcomes such as lower turnover (Kehoe and Wright, 2013; Sun *et al.*, 2007), improved productivity and financial performance (e.g., Collins and Smith, 2006; Gong *et al.*, 2009).

Recent reviews of the HRM literature highlight two key themes. First, they suggest that “coherent systems of mutually reinforcing HRM practices are likely to better support sustainable performance outcomes than are any individual practices” (Kehoe and Wright, 2013, p. 368, see also Jiang *et al.*, 2012a; Subramony, 2009). Second, Kehoe and Wright (2013, p. 368) observe that “a commonality across practices in any high-performance approach is a focus on promoting workforce ability, motivation, and opportunity... to perform behaviours consistent with organisational goals”. In line with this, the AMO framework of HRM proposes that high performance HRM systems comprise three sub-systems (bundles of HRM policies & practices) that focus on enhancing employees’ (a) ability/skill, (b) motivation, and (c) opportunity to perform (Gardner *et al.*, 2011; Jiang *et al.*, 2012b; Kehoe and Wright, 2013; Lepak *et al.*, 2006; Subramony, 2009).

Ability- or skill-enhancing HRM practices are designed to ensure that employees are appropriately skilled, and include those related to recruitment, selection, and training.

Motivation-enhancing HRM practices aim to increase employees' discretionary effort and persistence, and include those pertaining to compensation, benefits and performance appraisal.

Opportunity-enhancing HRM practices are designed to empower employees to use their skills and motivation to achieve organisational objectives, and include teamwork, participation in decision-making and information-sharing (Gardner *et al.*, 2011; Subramony, 2009). The logic underlying the AMO framework of HRM is that:

“people perform well when they are able to do so (they can do the job because they possess the necessary knowledge and skills), they have the motivation to do so (they will do the job because they are adequately incentivized), and their work environment provides the necessary support and avenues for expression” (Kinnie *et al.*, 2006: 41).

Following Mitchell and colleagues' (Lee *et al.*, 2004; Mitchell *et al.*, 2001) suggestion that job embeddedness can be developed through organisational practices, two studies have examined the influence of bundles of HRM practices upon job embeddedness (Bambacas and Kulik, 2013; Bergiel *et al.*, 2009). Bergiel *et al.* (2009) found that job embeddedness mediated the effects of compensation, growth opportunities and supervisor support on turnover intentions. Most recently, Bambacas and Kulik (2013) found that job embeddedness mediated between employee perceptions of HRM activities (performance appraisal, rewards, and employee development) and turnover intentions.

Although these studies provide some evidence that HRM practices are associated with job embeddedness, none captures the full scope of the AMO conceptualisation of HRM practices. Whilst Bergiel *et al.* (2009) and Bambacas and Kulik (2013) explored *ability-* and *motivation-enhancing* HRM practices, neither examined the third pillar of AMO - *opportunity-enhancing* HRM practices. We anticipate that all three sub-systems of HRM practice will be involved in shaping organisational embeddedness. We discuss next the potential for all three sub-systems of HRM practice to influence organisational fit, links and sacrifice.

Ability-enhancing HRM practices. Since they include recruitment, selection and training and development practices, we expect ability-enhancing HRM practices to play a major part in determining the extent to which a person perceives that they are a good fit to the job and organisation. However, since training and development leading to the enhancement of one's human capital is frequently viewed as a benefit of employment, we also anticipate that this bundle of HRM practices would be perceived as something that would be forfeited or sacrificed in the event that a person quit their job. Given that these activities frequently involve socialization processes, ability-enhancing practices may also relate to the extent to which a person feels connected to others at work. Thus, we hypothesize the following:

Hypothesis 2a: Ability-enhancing HRM practices positively relate to the fit, links and sacrifice dimensions of job embeddedness.

Motivation-enhancing HRM practices. Motivation-enhancing HRM practices incorporate activities designed to encourage employees to expend effort on the job, and include those associated with performance appraisal, compensation, job security, and the use of incentives. Being provided with secure, rewarding work is likely to increase both the extent to which people feel that they fit where they are and the sense of potential sacrifice associated with leaving. In many instances, performance appraisals are based on input from multiple sources (peers, subordinates) and incentive pay is based on group rather than individual performance. Such practices can serve to bind employees more closely to each other in the performance of their work, and thereby intensify linkages. Consequently, we hypothesize the following:

Hypothesis 2b: Motivation-enhancing HRM practices positively relate to the fit, sacrifice and links dimensions of job embeddedness.

Opportunity-enhancing HRM practices. According to Jiang *et al.* (2012b), HRM practices that create the opportunity to perform are those related to job design, the use of teams, employee involvement, grievance and complaints-handling processes and the

widespread sharing of information. Job characteristics such as autonomy and skill variety provide the flexibility and discretion that enables a person to achieve a greater fit between their knowledge, skills, abilities and other personal attributes (e.g. values) and the roles they perform. Teamwork and employee participation and involvement are likely to strengthen ties to others within the workplace (links), while an incumbent would be likely to consider the intrinsic satisfaction derived from enriched and empowered work as a potential loss (sacrifice) if exiting from the role. Thus, we hypothesize the following:

Hypothesis 2c: Opportunity-enhancing HRM practices positively relate to the fit, sacrifice and links dimensions of job embeddedness.

As discussed previously, job embeddedness has been found to mediate between features of the job/organisational context and a number of employee attitudes and behaviours. For example, it acts as a mediator between HRM practices and employee turnover (Bambacas and Kulik, 2013; Bergiel *et al.*, 2009), and also between aspects of the employment relationship and outcomes such as affective commitment and intention to quit (Hom *et al.*, 2009). However, despite the empirical evidence linking HRM to job embeddedness, and in turn to job performance that we discussed earlier, researchers have yet to propose that job embeddedness is one of the mechanisms whereby HRM practices are able to generate superior employee performance. Nevertheless, existing evidence on the mediating role of job embeddedness in relationships between HRM and other employee outcomes leads us to the following predictions:

Hypothesis 3: On-the-job fit (a), sacrifice (b) and links (c) mediate the positive relationships between ability-enhancing HRM and job performance.

Hypothesis 4: On-the job fit (a), sacrifice (b) and links (c) mediate the positive relationships between motivation-enhancing HRM and job performance.

Hypothesis 5: On-the-job fit (a), sacrifice (b) and links (c) mediate the positive relationships between opportunity-enhancing HRM and job performance.

The full hypothesised model is presented in Figure 1.

‘FIGURE 1 ABOUT HERE’

Method

Organisational context

Data were collected from employees working in eight self-contained business units of a Chinese transportation company located in Guizhou province, Southwest China. Each business unit is located in a different geographical region, and each has its own distinctive business focus, including transportation, security, logistics, international transportation, warehouse, export and import, and two port sites. The parent company allows managers within each unit considerable autonomy to manage their various employees as they deem most appropriate. Consequently, employees at the same job level, but who work in different business units, may be exposed to quite different HRM practices.

Participants and procedure

We commenced by conducting a total of 17 preliminary interviews with a convenience sample of participants from various business units and job levels. These semi-structured interviews were primarily designed to inform the design and development of the quantitative component of the study, exploring the types of HRM practices implemented in the various business units, and to gain a sense of the possible role of HRM practices as factors contributing to employees’ perception of fit, links and sacrifice and their task performance. The interviewer took extensive notes and reiterated the interviewees’ examples and comments explicitly to verify their actual meaning during the interviews. With the agreement of

participants, interviews were recorded and transcribed. After transcribing, the data was independently coded using NVivo 8 by two bilingual researchers, into categories guided by previous research on HRM, job embeddedness and employee work-related outcomes.

Two questionnaires were then developed, one for employees and the other for their supervisors. The employee questionnaire measured perceptions of HRM practices and job embeddedness, while supervisors were asked to rate each employee's job performance. The questionnaires were translated from English into Chinese by two of the authors who are fluent in both languages and, as a check on the reliability of that translation, the final Chinese text was then back-translated by a bilingual research assistant. The questionnaires were then distributed to a randomly selected sample of 260 employees working in various business units and positions within the company and their supervisors. Participation was voluntary and participants were assured of the confidentiality of their responses.

A total of 197 (76%) valid paired-responses (supervisor-subordinate) were received. The average age of respondents was 37.78 years ($SD = 8.31$), average organisational tenure was 7.63 years ($SD = 7.17$), and 34.7 per cent were female. In terms of their education, 16.8 per cent had high school level education or below, 48.4 per cent held a diploma degree and 34.2 per cent a bachelor degree.

Measures

The items used to operationalise the constructs are reported in the Appendix. Except where noted, all measures used seven-point Likert scales (1= strongly disagree; 7 = strongly agree).

HRM practices We were guided by the understanding that employees "experience and interpret the same set of HR practices differently" (Liao *et al.*, 2009, p. 384), and that it is these perceptions which are most influential when it comes to attitudinal and behavioural outcomes (Kehoe and Wright, 2013). We assessed employees' perceptions of HRM practices

using 23 items selected from established scales (Huselid, 1995; Kehoe and Wright, 2013; Liao *et al.*, 2009; Sun *et al.*, 2007; Zacharatos *et al.*, 2005). In keeping with previous research using the AMO framework of HRM (Jiang *et al.*, 2012b; Kehoe and Wright, 2013; Subramony, 2009), we categorised these practices into three domains: ability-, motivation- and opportunity-enhancing HRM practices.

For ability-enhancing HRM practices, we asked about training provision, selectivity in recruitment processes, and developmental feedback provided by supervisors, given that these practices are likely to increase employees' level of knowledge and skills. Specifically, we measured perceptions concerning selectivity in staffing by asking employees about the hiring process and the general quality of selected job candidates. We tapped into perceptions of training provision by asking about the perceived the existence of formal training. Feedback on job performance was assessed by asking employees to rate the availability of feedback for job performance improvement. Cronbach's alpha was .90.

For motivation-enhancing HRM practices, we asked employees to rate whether they perceive their wage is higher than that of other companies in the same industry, whether they receive merit-based compensation, and take part in a formal performance appraisal. In addition, we assessed employees' perceptions concerning extra benefits provided by the organisation above and beyond that required by the Social Insurance Law.² We developed this item based on our interview data, and asked employees about the availability and importance of extra benefits such as housing benefits. Cronbach's alpha was .90.

For opportunity-enhancing HRM practices, we assessed teamwork by asking employees to rate the extent to which their work is organised around teams, the opportunity to participate in decision-making processes and the existence of decentralised participation processes, regular information-sharing communication regarding the organisation's performance, and

² The Social Insurance Law, administered by the Ministry of Human Resources and Social Security, covers pension, medical, work-related injury, unemployment and maternity insurance.

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employees' autonomy in making modifications in terms of how their work is done. These practices were included because they are likely to improve employees' sense of involvement and importance, and to increase employees' perceived opportunity and motivation to make meaningful contributions to their work. Cronbach's alpha was .92.

Job embeddedness We used a 9-item measure of organisational embeddedness (Holtom *et al.*, 2006). This measure assesses the fit, links and sacrifice elements of job embeddedness and has performed well in previous studies (Burton *et al.*, 2010; Felps *et al.*, 2009). Sample items include "I feel like I am a good match for this company" (fit), "I would sacrifice a lot if I left this job" (sacrifice), and "I work closely with my co-workers" (links). Cronbach's alphas were .78 (fit), .76 (sacrifice), and .78 (links).

Job performance Supervisors rated their employees' level of job performance using six items from the scale developed by Williams and Anderson (1991). Sample items include "he/she can adequately complete assigned duties". Cronbach's alpha was .92.

Control variables We included tenure, gender and educational background as controls as these demographic variables have been found to covary with employee performance (Halbesleben and Wheeler, 2008; Lee *et al.*, 2004). We excluded age, which is highly correlated with tenure ($r = .83, p < .001$). Organisational tenure was measured in years. Gender was dummy-coded (0 = male; 1 = female). Educational background was measured in four categories.

Results

Interviews

Although the interview data were primarily used to collect data on the organisational context and to inform the design of the quantitative component of the study, they generated specific information that was supportive of the study's propositions that an organisation's

HRM system plays a key role in facilitating employees' perception of their job-related fit, links and sacrifice, as well as their willingness to perform well. Three key themes emerged from our examination of the qualitative data: (1) the organisation viewed improvements in its HRM practices as a key strategic lever in motivating and retaining its workforce; (2) it was seen as important for employees to feel a sense of good fit to the organisation, and for them to have a sense of connection with their coworkers and friends both in and outside workplace; and (3) that employee attachment and commitment to the organisation needed to be reinforced by appropriate HRM practices.

The interviewees also generated helpful insights into ways in which this organisation's HRM system might be influencing employees' job embeddedness. To illustrate:

"We've changed the way we reward our employees, especially the manual workers. Instead of just focusing on increasing wage levels, we had to look for other ways to promote better fit and connections, and reward and retain them. For example, we provide them with cheap accommodation, encourage and support those migrants who want to bring their family with them, or register their children at local schools." (Senior Manager 2)

"We are no longer just recruiting and hiring. Now we are considered to have a role in promoting social connections and performance, both of individuals and the organisation. For example, we've introduced many different social events in order to promote employees' consecutiveness with each other and the company. This helps new employees to get to know others and to fit in better." (HR assistant 1)

Interviewees also reinforced the notion that job embeddedness potentially plays an important role in promoting job performance.

"It's very important for our employees to feel closely connected with others in the company. I have often found that the best performers are not just the ones who have skills

and knowledge, but those who also have a sense of responsibility both to the organisation and to their coworkers.” (Manager 2)

“It’s simple, I have too much to lose if I don’t perform well. My network is here, my family is here, and my child goes to the local school here. I feel that I have to perform well so that I don’t feel guilty. The last thing I’d want is to lose my job due to poor performance results.” (Employee 3)

The results of these preliminary interviews were viewed as being supportive of the theoretical arguments underlying this research, in the sense that respondents clearly identified the existence of links between HRM practices and job embeddedness elements, and between job embeddedness and performance. This encouraged us to proceed with formal hypothesis testing, using survey data.

Descriptive statistics

Descriptive statistics and intercorrelations for the study variables are presented in Table 1. An initial investigation of the results revealed some high correlations ($r > .50$), ranging from .51 (ability-enhancing HRM and organisational links) to .76 (ability- and opportunity-enhancing HRM), indicating the potential issue of multicollinearity. We conducted a multiple linear regression model to obtain the variance inflation factor (VIF) for all variables. The VIF values of 1.09 to 2.98 in Table 1 are substantially below the conventional cut-off of 10 (Neter *et al.*, 1989), which indicates that the independent variables do not have a severe multicollinearity problem. Therefore, all variables were retained for regression analyses.

‘TABLE 1 ABOUT HERE’

Confirmatory factor analysis

To assess the discriminant validity of our three HRM dimensions, we conducted two confirmatory factor analyses (CFAs) using Mplus (Muthén and Muthén, 2009). We compared

our focal three-factor model (ability-, motivation- and opportunity-enhancing HRM practice) with an alternative one-factor model, in which all the HRM practices were collapsed into a single factor. Our results reveal that the three-factor model fits the data well ($\chi^2/df = 2.37$, CFI = .92; TLI = .90; RMSEA = .08; SRMR = .07), with factor loadings all higher than .50. It also fits the data significantly better than the alternative one-factor model ($\chi^2/df = 6.25$, CFI = .68; TLI = .63; RMSEA = .17; SRMR = .13).

To assess the discriminant validity of the job embeddedness components, we compared our focal three-factor model (fit, sacrifice and links) with an alternative one-factor model in which all the embeddedness items were collapsed into a single factor. Our results showed that the three-factor model fitted the data well ($\chi^2/df = 2.93$; CFI = .95; TLI = .92; RMSEA = .01; SRMR = .05), and that factor loadings were all higher than .50. It also fitted the data significantly better than the alternative one-factor model ($\chi^2/df = 5.56$; CFI = .85; TLI = .81; RMSEA = .15; SRMR = .07).

Furthermore, we examined the adequacy of the hypothesised measurement model which included seven factors: ability-, motivation-, opportunity-enhancing HRM, fit, sacrifice, links, and task performance. The seven factors were allowed to be related. The fit indices were acceptable ($\chi^2/df = 1.76$, CFI = .92; TLI = .91; RMSEA = .06; SRMR = .08). As indicated in Table 2, the seven-factor model was better than three alternative models: Model 1, which combined all the HRM practices into a single factor ($\chi^2/df = 2.50$, CFI = .83; TLI = .81; RMSEA = .09; SRMR = .08); Model 2, which combined all three job embeddedness components to form an aggregated measure ($\chi^2/df = 1.88$, CFI = .90; TLI = .89; RMSEA = .07; SRMR = .09); and Model 3, which combined the three sub-systems of HRM practices into a single factor, and the three job embeddedness sub-components into a single factor ($\chi^2/df = 2.62$, CFI = .82; TLI = .80; RMSEA = .09; SRMR = .08).

'TABLE 2 ABOUT HERE'

Hypothesis testing

We employed structural equation modeling (SEM) to test the proposed multiple mediation model, using Mplus (Muthén and Muthén, 2013). Given our sample size (n=197 paired responses) and the number of relationships we are testing simultaneously, we opted to use the composite (or parcel) formation technique, as commonly used in HRM research (Williams and O'Boyle, 2008). The use of parcelling results in the estimation of fewer model parameters and will therefore result in a more optimal variable to sample size ratio and more stable parameter estimates, particularly with small samples (Bagozzi and Edwards, 1998; Coffman and MacCallum, 2005; Hall *et al.*, 1999). Following recommendations from Little *et al.* (2002) and Landis *et al.* (2000), we used the 'total aggregated method' to form item parcels, in which all of the items for a scale are summed or averaged. According to Sass and Smith (2006), this method allows the researcher to incorporate construct validity without modelling each item, and still evaluate the disattenuated structural coefficient between latent variables. Given that our CFA analyses have already demonstrated that all latent variables are distinct from each other, the total aggregation approach is believed to be appropriate for the full model testing in our study.

Once we had formed parcels for our study constructs, we then used SEM to test the simultaneous effects of these HRM practices on job embeddedness dimensions and task performance. The resultant model fit indices indicated acceptable fit ($\chi^2 = 15.76$, $df = 3$; CFI = .98; RMSEA = .15; SRMR = .03) for the overall model. Note that, although the RMSEA appears to be on the high side, Kenny *et al.* (2014) argue that RMSEA often falsely indicates poor model fit for models with small degree of freedom and sample size, and advise against its use as a fit index in such a context. Hence we suggest it may be discounted in this instance, in light of other indices indicating good fit. Table 3 shows the direct and indirect effects between HRM practices, job embeddedness dimensions and task performance.

‘TABLE 3 ABOUT HERE’

With regard to the direct relationships, Hypotheses 1a-1c predicted that employees’ perceived fit, sacrifice and links would be positively related to their job performance. All three dimensions of job embeddedness, fit ($\beta = .39, p < .001$), sacrifice ($\beta = .26, p < .01$), and links ($\beta = .21, p < .01$) were significantly and positively associated with supervisor rated task performance. Hypotheses 1a-c are therefore supported. Hypotheses 2a-2c predicted that three sub-systems of HRM practices would be positively associated with organisational fit, sacrifice and links. Ability-enhancing HRM was positively associated with organisational fit ($\beta = .30, p < .01$), sacrifice ($\beta = .36, p < .01$) and links ($\beta = .44, p < .001$), thereby providing full support for Hypothesis 2a. Hypothesis 2b received only weak support, however, as motivation-enhancing HRM only positively related to sacrifice ($\beta = .16, p < .01$), but unrelated to either fit ($\beta = .10, p < .10$) or links ($\beta = .01, p > .05$). Hypothesis 2c received only partial support, as opportunity-enhancing HRM positively related to fit ($\beta = .22, p < .05$) and sacrifice ($\beta = .25, p < .01$), but unrelated to links ($\beta = .07, p > .05$).

With regard to the hypothesised indirect relationships, as shown in Table 3, Mplus’s bootstrapping results confirmed that the relationship between ability-enhancing HRM and supervisor-rated job performance was mediated by fit ($\beta = .12, p < .01$), links ($\beta = .09, p < .01$), and sacrifice ($\beta = .09, p < .01$). Hypotheses 3a-3c are thus fully supported. Hypotheses 4a-4c concerned the indirect relationships between motivation-enhancing HRM and job performance, and only Hypothesis 4b (sacrifice) received weak support. Sacrifice mediated the relationship between motivation-enhancing HRM and performance ($\beta = .04, p < .05$), but not fit ($\beta = .04, p > .05$) or links ($\beta = .01, p > .05$). Hypotheses 5a-5c predicted that the three embeddedness factors would mediate the opportunity-enhancing HRM to job performance relationship. Hypotheses 5a (fit; $\beta = .09, p < .05$) and 5b (sacrifice; $\beta = .07, p$

< .05) received support, but not Hypothesis 5c (links; $\beta = .02$, $p > .05$). Figure 2 depicts the significant direct relationships between each study construct.

‘FIGURE 2 ABOUT HERE’

Discussion

The primary purpose of this study was to explore the relationships between employees’ perceptions of HRM practices, job embeddedness dimensions and job performance. Despite increasing scholarly attention being paid to job embeddedness and its consequences, questions remain as to how organisations can actively embed their employees (Lee *et al.*, 2014; Zhang *et al.*, 2012). For example, in their recent review, Lee *et al.* (2014, p. 15) point out the ambiguity over “what sort of human resource strategies increase or decrease embeddedness”. Accordingly, examining HRM practices’ role in embedding employees in an organisation and, subsequently, improving their job performance is of value to both the HRM and job embeddedness literatures. To address this need, as well as recent calls for studies to disaggregate job embeddedness into its component dimensions when considering its impact on various dependent variables (Jiang *et al.*, 2012c; Lee *et al.*, 2014; Zhang *et al.*, 2012), we developed and tested a model incorporating both AMO framework of HRM and job embeddedness theory, in which job embeddedness dimensions mediate the relationships between employees’ perceived HRM practices and job performance.

In general, the findings provide qualified support for our predictions. At a global level, our study provides further empirical evidence that HRM practices are associated with employee job embeddedness which, in turn, can influence job performance. However, the results also encourage taking a more nuanced view of the relationship between specific bundles of HRM practices and specific sources of attachment, as represented by the fit, links and sacrifice dimensions of embeddedness. Although we hypothesised that all three of the

AMO bundles of HRM practices would theoretically contribute to each of the embeddedness dimensions, what we actually found was a much more differentiated set of relationships. Only ability-enhancing practices conformed to the predicted relationship with embeddedness, being positively related to organisational fit, sacrifice and links. Employees' perceptions that their organisation had rigorous hiring standards and processes, that it invested strongly in training and developing its employees, and that developmental performance appraisal feedback was provided were strongly correlated with feelings of person-organisation fit, connectedness to others in the organisation and a sense that valuable opportunities would be lost by leaving that organisation's employ. Our analyses also showed that the links between ability-enhancing practices and job performance were mediated through each of the embeddedness dimensions. This adds support to the view that HRM practices that seek to attach employees in a positive way to their organisation (i.e., by ensuring better fit, by creating relational ties, and by generating obvious value for the employee in the employment relationship) are also those that will tend to engender high levels of employee performance (Pfeffer, 1998).

By contrast, opportunity-enhancing and motivation-enhancing practices did not conform to the predicted universal relationship with the embeddedness dimensions and performance. Opportunity-enhancing practices were correlated with organisational fit and sacrifice, which in turn mediated the relationship with job performance. The failure of links to show the hypothesised relationships is a little surprising, given that the opportunity-related practices do include an emphasis on working in teams. However, the bulk of practices in this cluster relate to providing the opportunity for informed involvement in decision-making within the workplace, which may explain the lack of a direct effect on the development of relational ties at work. Finally, motivation-enhancing practices were only weakly correlated with embeddedness and associated job performance. These practices include a range of extrinsic

reward practices, including high pay, the use of bonuses, and rewards contingent on organisational performance. Self-determination theorists have suggested that attachment to the organisation is more strongly related to intrinsic forms of motivation than extrinsic motivation (Gagné and Deci, 2005), which may serve to explain the weak predictive power of the motivation-enhancing bundle of practices in this instance.

In conclusion, our findings provide empirical support for the argument that ability-, motivation- and opportunity-enhancing HRM practices are best viewed as “three distinct... rather than interchangeable indicators of HR systems” (Jiang et al., 2012, p. 1278). Our three-factor model fitted the data significantly better than a model combining the three sub-systems into a unidimensional HRM system. Similarly, our results also affirm the importance of disaggregating the job embeddedness construct into its fit, sacrifice and links dimensions. By simultaneously examining the pathways that exist between each job embeddedness dimension and its antecedents and outcomes, our results confirm that fit, sacrifice and links are distinct constructs. This is consistent with both the original conception of job embeddedness as a multi-dimensional construct (Mitchell et al., 2001), and recent calls for its disaggregation (Jiang *et al.*, 2012c; Lee *et al.*, 2014; Zhang *et al.*, 2012).

Contributions to practice

Our findings have a number of important implications for organisations seeking to actively manage both employees’ job embeddedness and their performance. First, it would appear that not all clusters of HRM practices described by the AMO framework are equally influential when it comes to strengthening employee attachment. The finding that ability-enhancing HRM practices were consistently associated with all three embeddedness elements and with individual job performance suggests that organisations wishing to both retain and generate high levels of performance from workers should focus on hiring (e.g. rigorous selection for

organisation fit), training (e.g. extensive investment in skill development), and developmental performance appraisal practices (e.g. providing regular feedback on performance improvement). This particular HRM bundle appears to provide the most reliable and potent lever for enhancing all three components of embeddedness, when compared with motivation- and opportunity-enhancing practices.

Second, the findings provide an important reminder to HR practitioners that providing employees with opportunities to become involved in decision-making, through the provision of increased control over and participation in decisions at work, has the potential to make a positive difference to both attachment and attachment-related performance behaviour. Such opportunity-enhancing HRM practices, which increase the control of employees over their working lives and which have the power to influence both employee well-being and performance, should not be neglected when implementing high performance approaches to HRM (Blumberg and Pringle, 1982; Fast *et al.*, 2014; Jackson *et al.*, 2014; Nielsen and Randall, 2012).

Third, our findings provide a note of caution against managers relying primarily on compensation and benefits packages as a means of stopping valued employees from leaving the organisation. Whilst extrinsic rewards play an important role in shaping both employee attachment and performance (Gerhart and Fang, 2014), and provide a quick remedy for a potential retention problem, on the evidence of this research, organisations that primarily emphasise high pay and conditions as a strategy for retaining staff cannot expect to reap many of the potential benefits of increased attachment to the organisation; particularly when compared to those whose HRM policies and practices emphasize the enhancement of employee ability and opportunity to contribute.

Finally, our findings should encourage managers who are seeking to reduce turnover, whilst still maintaining high levels of performance, to think carefully about how they design

and target specific HRM practices within their work settings. On the evidence of our research, different HRM practices will be associated with attachment behaviour and performance for different reasons; sometimes because they encourage better fit, sometimes because they build stronger relational ties in the workplace, and at times because they create direct disincentives for leaving. Understanding these separate pathways, as they relate to specific employee groups, will be essential if managers are to effectively use HRM practices to target attachment and performance outcomes within their own organisations.

Limitations and further research opportunities

Several potential limitations to our study should be noted. Firstly, although supervisors rated the job performance variable independently, most data were collected during one time period. While job embeddedness is a potential antecedent of job performance, the reverse direction may also hold, given that embeddedness can develop over time. Thus, future research could employ a longitudinal design to explore how changes in embeddedness influence job performance. Another potential limitation is that we directed our efforts to organisational embeddedness. In so doing, we adopted existing studies' suggestion that organisational embeddedness would be more relevant to job performance (e.g., Sekiguchi *et al.*, 2008). However, off-the-job embeddedness such as community and family embeddedness may also influence job performance (Lee *et al.*, 2004; Ramesh and Gelfand, 2010). In future research, adding off-the-job embeddedness, may lead to meaningful research results. Thirdly, the generalisability of our findings might be limited. For example, a state-owned enterprise might offer fewer pay-for-performance practices but have more generous benefits (Kim *et al.*, 2010). These factors might account for the generally less significant impact of motivation-enhancing HRM practices upon job embeddedness and job performance that we report in this study. The nature of job performance may also vary significantly across industries and jobs, thus raising

the possibility of other boundary conditions for our results, which future research could explore. We are also aware that our study did not distinguish between ability-enhancing HRM practices (e.g. recruitment, training) designed to promote generic skills that would be transferrable in the labour market (which would potentially increase perceptions of 'fit' whilst at the same time reducing perceptions of 'sacrifice' if one were to leave the organisation), and ability-enhancing practices designed to build firm-specific skills that would be of limited use elsewhere (which would likely increase both 'fit' and 'sacrifice'). Future research applying the AMO framework of HRM to embeddedness will need to make more fine-grained assessments of the potential synergistic, additive and substitutive relationships that may arise between specific HRM practices within the three general HRM policy domains as they impact on embeddedness (Jiang *et al.*, 2012a).

Finally, we would encourage future researchers to explore both the main effects and interactions of the HRM sub-systems and job embeddedness upon a range of individual and organisational outcomes over time and in different contexts. We note, for example, Ng and Feldman's (2010a) finding that organisational embeddedness was associated with a decline over time in employees' efforts to enhance their human capital and social capital, thereby potentially having a negative impact on their career development and mobility, as well as their long-term ability to perform. Additional evidence that job embeddedness may have a 'dark side' is provided by Sekiguchi *et al.* (2008), who found that the relationship between embeddedness and job performance was positive when the quality of leader-member exchange was high, but negative when it was low. Whilst job embeddedness theory clearly positions itself as a theory of positive behaviour, the potential for high levels of organisational attachment to result in negative consequences for both the organisation and the individuals under certain conditions cannot be ignored. We also recognise that our research has not been

able to directly illuminate any of the proposed mechanisms linking job embeddedness to increased levels of job performance, and future studies should seek to do this.

Conclusions

Job embeddedness has emerged as a major predictor of employee turnover, however, questions remain regarding both what contributes to its development and its predictive power on “why people perform”. Our study directly addresses these questions. The findings demonstrate that the AMO framework of HRM focused on developing employees’ knowledge, skills, and abilities might enhance their embeddedness by directly increasing their fit, sacrifice and links. Our results also indicate the value of utilizing the job embeddedness construct at its component level. In addition, the study demonstrated the indirect effect of the AMO framework of HRM on employee job performance via the effects of the embeddedness components. We hope our preliminary findings spur additional research to further understand how strategic HRM can enhance job embeddedness via different pathways, and when and how job embeddedness sub-components might help predict a range of important work outcomes.

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