HR practices and the way they embed employees in organizations

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Unparalleled staffing challenges have been forecast over the next decade. Some calculations project labour shortages of 20 million with a decline in labour force annual growth, a slowdown in skilled educated workers and a rise in demand (Hilton 2008). Human resource (HR) practices that retain professional staff with valued skills will become a priority. Organizations which can reduce turnover will be better equipped to handle these challenges.

Striving to minimize valued staff turnover, organizations have considered HR practices that enhance employee levels of job satisfaction and organizational commitment. In particular, organizations have benefited from providing personal and career development, feedback on performance and suitable rewards which have improved attitudes that deterred staff exodus. Another construct which has gained scholarly attention recently in turnover prevention is job embeddedness, a retention (or "antiwithdrawal") construct. It adds to the prediction of turnover beyond that of attitudes such as job satisfaction and commitment (Lee, Mitchell, Sablynski, Burton & Holtom 2004: 713) and focuses rather on why people stay. Specifically job embeddedness on and off the job concentrates on the social connections (links), value correspondence between the individual, the organization and the environment (fit), as well as the benefits individuals would need to forgo were they to leave (sacrifice).

However, research evidence on the effect of HR practices on job embeddedness is scarce (Bergiel, Nguyen, Clenney & Taylor 2009). In particular, there is lack of research on the process by which HR practices embed individuals in organizations so as to decrease their propensity to leave. This research question has high practical relevance given the importance of talent retention. While organizations may provide a number of HR practices that deter turnover intentions, they should also be aware of (1) the practices that embed individuals and those which do not, and (2) the process by which these practices embed individuals, so that firms may be able to enhance retention levels.

Our research was guided by Lewin's (1951) field theory which focuses on the interdependence and the ordering of factors within a relationship. He asserts that the intensity of the goals individuals try to reach

is dependent on the goal's proximity. Mediation models and the ordering of antecedents illustrate the proximity and strength of goals. For example, Griffeth, Hom & Gaertner's (2000) meta-analysis illustrates attachments to be proximal to turnover while characteristics of the work environment (such as reward fairness, and perceptions of growth opportunities) to be distal to the turnover process.

This suggests that the strength of the attachments individuals make, or their level of embeddedness in organizations, is proximal to turnover and deters it (Mitchell, Holtom, Lee & Erez 2001). For example, personal links with others in organizations, a good job fit and a perceived personal sacrifice when leaving organizations deters departure. Attachments are also proximal to turnover intentions. We chose turnover intentions as data was gathered at the height of the Global crisis which suggested employee quitting not being an option due to the lack of alternatives (Carsten & Spector 1987).

HR practices which determine the characteristics of work environment are then distal to the withdrawal process. The order of these variables suggests that the dimensions of job embeddedness mediate the HR practices-turnover relationship. For instance, organizational based rewards that lead to employee advancement may strengthen personal relationships (links), and in turn, diminish turnover intentions; links mediate the organizational based rewards-turnover intentions. Likewise, performance appraisal by organizations may enhance perceptions of organizational fit and in turn discourage turnover intention; perceptions of organizational fit mediate the performance appraisal-turnover intentions relationship. Last of all, career and personal development which offers employees benefits which are transferable can contribute to the sacrifice that would be made were they to leave, in turn deterring turnover intentions; perceived sacrifice mediates the developmental activities-turnover intention relationship. Based on this model we propose that three types of HR practices (i.e. rewards, performance appraisal and developmental activities) will encourage different dimension of job embeddedness (i.e. links, fit, sacrifice) respectively. These attachments will in turn reduce turnover intentions. Although previous research has identified antecedents that influence turnover intentions (Griffeth et al. 2000) the mediating mechanisms outlined above have not been considered. We extend research on antecedents of turnover by considering ways by which HR practices could inform different dimensions of job embeddedness to constrain turnover intentions.

[Insert Figure 1 here]

Job embeddedness

Job embeddedness is a reasonably new construct focusing on retaining employees and as argued by Felps et al. (2009: 548) indicates an overall "stuckness" in a job, opposite of which is the eagerness to leave. It considers three aspects (links, fit and sacrifice) which enmesh individuals in organizations and communities. Links, are defined as the "formal or informal connections between a person and institutions or other people" (Mitchell, Holtom, Lee, Sablynski & Erez 2001:1104). Links are broadly discussed as 'discernable connection'. Connections are visualized as strands of a web of social, psychological or financial web which is formed through links in the work environment and community where individuals work and live. Having to move and cut or rearrange these links may encourage individuals to remain rather than leave.

The second aspect of job embeddedness, fit, is defined as "an employees' perceived compatibility or comfort with an organization and with his or her environment" (Mitchell et al. 2001: 1104). The theory proposes that a good fit with the organization is the correspondence between individuals' values, career goals and plans with the demands from organizations.

Sacrifice the final aspect of job embeddedness is characterized by "the perceived cost of material or psychological benefits that may be forfeited by leaving a job" (Mitchell et al. 2001: 1105). In other words, the losses that may be incurred when leaving an organization (such as advancement or interesting assignments) may deter individuals' departure.

HR practices-turnover intentions relationships

These practices are important to organizations as they signal the investment that organizations are making in employee development which should reduce organizational turnover (Allen, Shore & Griffeth 2003). This is important when organizations are looking to retain talented employees. The current study examines three bundles of HR practices that encourage employee development through rewards (i.e. organizational and supervisory rewards), performance appraisal (Kuvaas 2006) and personal and professional development (Allen et al. 2003) (i.e. career development, professional growth, professional interaction).

Rewards are an essential element in professional staff retention as compensation is vulnerable to comparable and better offers by competitors. However, as Brewer (2006) argues compensation is

necessary but inadequate in retaining staff as it is not the only motivator. Thus companies include financial incentives as well as other benefits such as rewards of promotion for superior performance (Johns 1989) and learning and developmental rewards (Rotundo 2002).

Rewards, whether allocated by organizations or by supervisors can strengthen the employee-organization relationships and are dependent on the quality of the rewards (Moon 2007). In addition, Eccles (1981) suggests that these relationships embed individuals encouraging them to continue to-work together while deterring turnover intentions. We therefore propose the following hypothesis:

Hypothesis 1 (H1): The relationship between organizational rewards (organizational and supervisory) and turnover intention will be mediated by the organization link dimensions of job embeddedness and turnover.

Valued rewards diminish turnover and intention to leave (Rumpel & Medcof 2006). Individuals that receive rewards they value may also perceive being supported and appreciated (Wayne, Shore, Bommer & Tetrick 2002). Feeling supported and appreciated enhances relationships, the fit individuals feel with the organization deterring their departure (Westerman & Yamamura 2007). Consequently, we suggest that rewards that accommodate individual needs, be they organization or supervisor based, would enhance organizational fit and limit turnover intentions.

Hypothesis 2 (H2): The relationship between rewards (organizational and supervisory) and turnover intention will be mediated by the organization fit dimension of job embeddedness.

Performance appraisal is a form of evaluation whereby employee performance is measured and evaluated (Kramar, McGraw & Schuler 1997). It helps both employees and organizations improve their performance. However the quality of the appraisal experience can improve individual-organization fit (Peterson 2004) or lead to dissatisfaction and intentions to leave (Brown, Hyatt & Benson 2010). These proclamations suggest that performance appraisals may engender perceptions of fit and decrease intentions to leave. We therefore suggest:

Hypothesis3 (H3): The relationship between performance appraisal and turnover intentions will be mediated by the organization fit dimension of job embeddedness.

Employee personal and career development enhances future career opportunities for employees. Three developmental activities, career development, professional growth and professional interaction, have been researched widely in the literature for their positive organizational outcomes (Huselid 1995). Specifically, career development is organizational opportunities that advance

employees' career prospects, and encourages staff with high potential to stay (King, Xia, Quick & Sethi 2005). Organizations encourage career development as it enhances organizational outcomes such as commitment (Bambacas & Bordia 2009), and deters turnover intentions (Chang, Chou & Cheng 2007).

Professional development also develops employees' careers and enhances future career prospects but focuses on development designed to improve individual's learning and application of skills relevant to one's profession (Snape & Redman 2003). Wanting to retain professional staff, organizations provide opportunities that satisfy employee personal and professional growth needs (Muliawan, Green & Robb 2009) while minimizing turnover intention (Walsh & Taylor 2007). In addition, levels of professional interaction are dependent on the organization's climate which provides professional support and interaction with colleagues (Hart, Wearing, Conn, Carter & Dingle 2000). It would follow that accommodating employee developmental needs would make it costly for them to leave the organization. Although there is lack of direct evidence that employee development has a positive impact on sacrifice, indirect evidence points to this relationship. For example, Chay Hoon & Bruvold (2003) found that investment in employees' development, assumed to enhance employee costs in leaving, minimized decisions of intentions to leave. In other words, perceived investments increased the sacrifice that employees would make were they to leave. We therefore propose that:

> *Hypothesis 4 (H4): The relationship between employee development practices (i.e. career development, professional development and professional interaction) and turnover intentions will be mediated by the organization sacrifice dimension of job embeddedness.*

Figure 1 represents the proposed relationships between HR practices on the three dimensions of organizational job embeddedness and turnover intentions.

[Insert Figure 1 here]

METHOD

Participants and Procedure

Data were gathered from a Steel manufacturing organization in China. This sample was particularly suitable for the purposes of this study as the Steel industry typically has problems retaining professional and managerial staff. A self-report survey questionnaire in Chinese was

distributed by organizational HR staff to professional and managerial staff and returned to the investigator by post to ensure anonymity.

We used a translation-back-translation procedure for translating items for the Chinese version of the survey in order to minimize scale discrepancy (Brislin 1980). In total, 308 of the 520 surveys were usable with a 59.2% response rate. Of the 308 respondents 195 (63.3%) were male, 238 (77.3%) were between 26-35 years old. The majority of managers (54.6%) were professional staff such as engineers and accountants with a smaller segment of lower management (supervisors, 20.9%). In addition, the majority of respondents (66.8%) had attained a postgraduate level education.

Measures

Constructs were evaluated prior to the testing of the hypothesized structural model to ensure discriminant validity between the HR and turnover intention variables. First, an exploratory factor analysis (EFA) was performed to determine congeneric measures for each HR variable (Joreskog 1971). Discriminant validity was estimated on one pair of variables at a time (Anderson & Gerbing 1988). Reliability was then calculated for each of the variables.

The study employed previously published measures for all items. There were three groups of HR practices, rewards (i.e. organization-based rewards and supervisory rewards), performance appraisal and employee development (i.e. career development, professional growth and professional interaction). We also utilized the link, fit and sacrifice dimensions of organizational job embeddedness. A seven-point Likert scale was used to indicate the degree of agreement or disagreement with each statement. These ranged from (1) 'strongly disagree' to (7) 'strongly agree', (4) indicating 'neither agree nor disagree'. Table 1 presents examples of the scale items and the resulting Cronbach's alpha.

Organization-based rewards were measured using five items from Igbaria & Siegel's (1992) organization-based rewards. The items measured the degree to which employees' current job provided rewards. Factor analysis loaded these items onto two factors, one measuring rewards assisting advancement (rewards A) and the other measuring rewards by the compensation and power awarded (rewards B).

Supervisory rewards was assessed using three items from Podsakoff, Todor & Skov's (1982) supervisory rewards measure.

Performance appraisal was measured using three items from Hart et al.'s (2000) appraisal scale.

Career development was measured using four items from Penley & Hawkins's (1985) assistance in career development scale.

Professional growth was calculated using three items from Hart et al.'s (2000) professional growth scale.

Professional interaction was assessed using four items from Hart et al.'s (2000) professional interaction scale.

Organizational embeddedness was measured using the ***links***, ***fit*** and ***sacrifice*** dimensions of organizational embeddedness from Mitchell et al.'s (2001b) embeddedness scale. One item that assessed links to the organization (How many work teams are you on?) was not used because it was not part of the organization's working policy. In line with Mitchell et al.'s (2001b) definition of the embeddedness construct we created a composite variable for each dimension.

Control variables were demographic characteristics such as age and employment status.

Turnover intentions were measured using three items from Peters, Jackofsky & Salter's (1981) turnover intention scale.

RESULTS

The means, standard deviations, and zero-order correlations for the study variables are displayed in Table 1. Zero-order correlations were all in the predicted direction.

In order to test the hypothesized relationships of our model we utilized Mplus 5.21 a software application and a two-step approach for Structural Equation Modeling (SEM) (Anderson & Gerbing 1988). An EFA with oblique rotation was conducted on all HR management practices and turnover intention items. To maintain uni-dimensionality (Anderson & Gerbing 1988), items with correlated error terms lower loadings than 0.4 (Tabachnick & Fidell 2007) were removed maintaining internal consistency (Table 1).

A full measurement model of all the constructs was first evaluated to demonstrate discriminant validity. This was followed by SEM testing the hypothesized model.

Several indicators were used to test the fit of the model and the observed data as well as the hypothesized and actual models. Six indicators were utilized, including chi-square (χ^2). As chi-square is greatly affected by sample size, normed chi-square (χ^2/df), a more widely used indicator, was also utilized, values close to 1 indicating a good fit. Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI), with values between 0 and 1 were acceptable, indicating a reasonable fit (Byrne 2001). Lastly, the Root Mean-Square Error of Approximation (RMSEA) and the Standardized Mean-Square Residual (SRMR) should be less than .05 for a good fit (Kline 1998).

The CFA suggested a moderate fit with an eight factor solution with the observed data: χ^2 (520 N = 308) = 954.954, p =.000, χ^2/df = 1.84, *CFI* =.93, *TLI* =.90, *RMSEA* =.05, SRMR =.03. This led to the removal of items with poor factor loadings. The removal of these items led to a considerable improvement of the fit: χ^2 (188, N = 308) = 312.40, p = .000, χ^2/df = 1.66, *CFI = 0.96, TLI* = 0.96, *RMSEA* = 0.04, *SRMR* = 0.03. Against this baseline eight-factor model, we tested seven alternative models. Results suggested that the eight-factor model had the best fit based on all fit indicators.

Our hypothesized structural model was compared with a fully mediated and a partially mediated model consistent with the test for mediation models (Anderson & Gerbing 1988). The hypothesized fully mediated model had a reasonable fit: χ^2 (356, N = 308) = 607.13, p = .000, χ^2/df = 1.71, *CFI = 0.94, TLI* = 0.93, *RMSEA* = 0.05, *SRMS* = 0.05. All the predicted paths except for four were significant at p<.05. An improved result was suggested by an additional path between the fit dimension of job embeddedness and turnover intentions.

The partially mediated structural model was then investigated, results suggesting that these additional paths were not significant. This supports the mediated structural model. Subsequently, using the Sobel Test (Sobel 1982), we examined the significance of the proposed indirect effect carried through the mediators. Results are discussed below.

Figure 2 presents the final model. It illustrates that the sacrifice dimension of job embeddedness (SJE) mediates the relationship between the fit dimension of job embeddedness (FJE) and turnover intentions (TI). In addition, the FJE mediates the relationship between three HR practices (rewardsA supervisory rewards and performance appraisal) and TI. Furthermore, the SJE mediates the professional growth-TI relationship as well as the link dimension of job embeddedness (LJE)-TI relationship. Also, the

relationship between the FJE and SJE mediates the rewardsA-TI relationship. Besides these mediating effects, the relationship between the LJE and SJE mediates the rewardsA-TI relationship. Finally, rewardsB and professional interaction had a significant relationship with the FJE and SJE respectively. However these dimensions of job embeddedness did not mediate the rewardsB and professional interaction-TI relationships.

The model was respecified and had adequate overall fit, χ^2 (355, N = 308) = 59.09 p < 0.001, χ^2/df = 1.67, *CFI* = 0.95, *TLI* = 0.94, *RMSEA* = 0.04 *SRMS* = 0.05 and was accepted as the final model. Figure 2 presents the final model with the standardized path estimates. Overall, Hypothesis 4 was supported and Hypotheses 1, 2 and 3 were partially supported.

[Insert Figure 2 here]

DISCUSSION

The aim of this research was to investigate how different parcels of HR practices offered by organizations embed individuals and decrease their turnover intentions. These results partially supported our proposed model and hypotheses.

Hypothesis 1 predicted that the LJE would mediate the bundle of reward HR practices-TI relationships. This hypothesis was partially supported. Although the LJE carried a significant amount of variance from rewards for advancement to the SJE, the SJE also carried a significant amount of variance from the LJE to TI. The mediating effect of the SJE between the LJE and TI suggests that there is no direct relationship between LJE and TI. The negative relationship between LJE and SJE suggests that rewards that promote advancement may enhance links and connections within organizations but do not arouse feelings of sacrifice were individuals to leave. This is in line with literature on employee mobility which suggests that improved career opportunities (outside the current organization) outweigh the sacrifice of leaving (Fugate, Kinicki & Ashforth 2004). Consequently our results imply that rewards for advancement may improve organizational links but not feelings of sacrifice.

The predicted mediation of FJE between the organizational rewards-TI and the supervisory rewards-TI relationships (H2) was partially supported. The mediating relationships were true for both rewards for advancement and supervisory rewards. In contrast, rewards that improved compensation

and power simply enhanced fit. Organization based rewards may therefore be important in generating fit with the organization and may generally deter intentions to leave. This is comparable to current literature which asserts that experiences at work that improve fit minimize turnover (Whiting & Kline 2007). These results also signal that supervisory and rewards promoting advancement encourage embeddedness through enhanced fit with the organization.

The hypothesized mediation of the SJE between the development group of HR practices and TI (H3) was partially supported. Specifically, the professional growth-TI relationship was the only relationship mediated by SJE but opposite to the predicted direction: feeling it costly to leave was positively related with turnover intentions. Although this area has not been developed in the literature it is not implausible. Even though intentions to leave are minimized when employees have invested in their development (Chay Hoon & Bruvold 2003), managers who are mobile and use personal development opportunities to further their career aspirations, may make the sacrifice when career opportunities arise elsewhere, and leave.

In contrast, career development did not demonstrate a statistically significant relationship. It is feasible that career development is widely used and expected in the workplace so may not seem to incur costs by leaving. In addition, professional interaction had a weak relationship with SJE but not with turnover intentions. This is consistent with Blau & Holladay's (2006) findings where accumulated costs did not show a significant relationship with professional interaction or turnover. These findings imply that developmental practices may not enhance embeddedness. Future research needs to investigate this further.

Hypothesis 4 supported the mediating effect of FJE between the performance appraisal-TI relationship suggesting that feedback on performance assists embedding individuals by enhancing employee-organization fit. Literature upholds this claim as individual-organizations fit is dependent on the quality of employee interactions with supervisors carrying out appraisals (Peterson 2004). These findings support the theoretical proposition that HR practices influence employees' job embeddedness in organizations. Further, HR practices that enhance employee fit may encourage embeddedness while practices that encourage feelings of link and sacrifice may not. Literature provides scarce examples of HR practices and how these may embed individuals in organizations

(Bergiel et al. 2009). Even though research provides evidence that the links individuals develop (Higgins 2001), the fit they achieve (Westerman & Yamamura 2007) and the sacrifice they would forgo would they to leave the organization (Vandenberghe & Tremblay 2008) is related to turnover intentions.

The finding that professional growth has a positive relationship with the sacrifice dimension of job embeddedness and turnover intentions is important as it is counter-intuitive. Over the last decade organizations have been encouraging professionals to satisfy their personal and professional growth needs for the strong influence on turnover intentions (Muliawan et al. 2009), but implications for job embeddedness have seldom been investigated. Yet, it has been well documented that an embedded workforce is preferred for the advantages it bestows on the organization (Felps et al. 2009; Stroth 2010; Tanova & Holtom 2008). The findings for professional growth suggest that HR practitioners and managers need to do more in order to decrease turnover intentions from their staff. In truth, investing in professional growth may not be favored as it can enhance an individual's competencies and marketability (Paul & Anantharaman 2004) resulting in employees choosing to leave. However, our results suggest that rewards and performance appraisal may enhance the individual-organization fit and discourage turnover intentions and help organizations recoup their investment. Future research is needed to further explore how job embeddedness may be achieved.

Limitations: A potential limitation for the present research stems from the use of self-report measures. The self-measurement of the HR practices, job embeddedness and turnover intentions present problems with validation. However, as suggested by Podsakoff & Organ (1986), discrimination amongst measures was established during analysis.

CONCLUSION

Given the staffing challenges which have been forecast for the next decade, there is a need for continued research into the HR practices that embed individuals in organizations. In particular, the processes by which these practices embed individuals need more attention. This study has

demonstrated that organizational and supervisory rewards play a major role in enhancing fit to the organization and embedding individuals. This paper also illustrated that professional growth did not make any contribution to these positive outcomes. This may have serious repercussions for organizations. Future research should devote attention to how professional growth can increase embeddedness while decreasing turnover intentions.

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FIGURE 1: PROPOSED MODEL OF THE MEDIATING EFFECT OF THE FIT, LINK AND SACRIFICE DIMENSION OF JOB EMBEDDEDNESS BETWEEN HR PRACTICES AND TURNOVER INTENTIONS

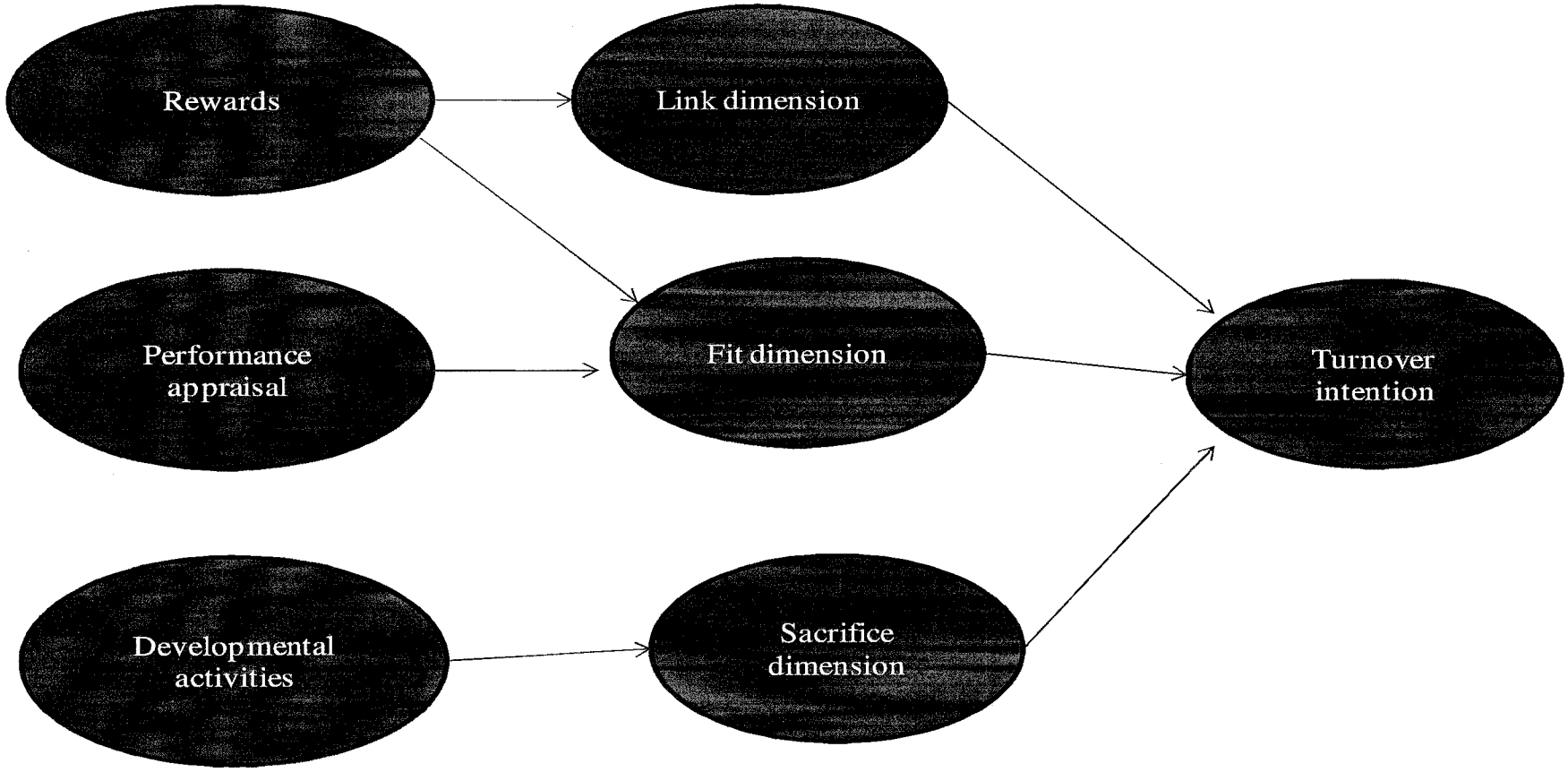

FIGURE 2: OBSERVED MODEL OF THE MEDIATING EFFECT OF THE FIT, LINK AND SACRIFICE DIMENSION OF JOB EMBEDDEDNESS BETWEEN HR PRACTICES AND TURNOVER INTENTIONS

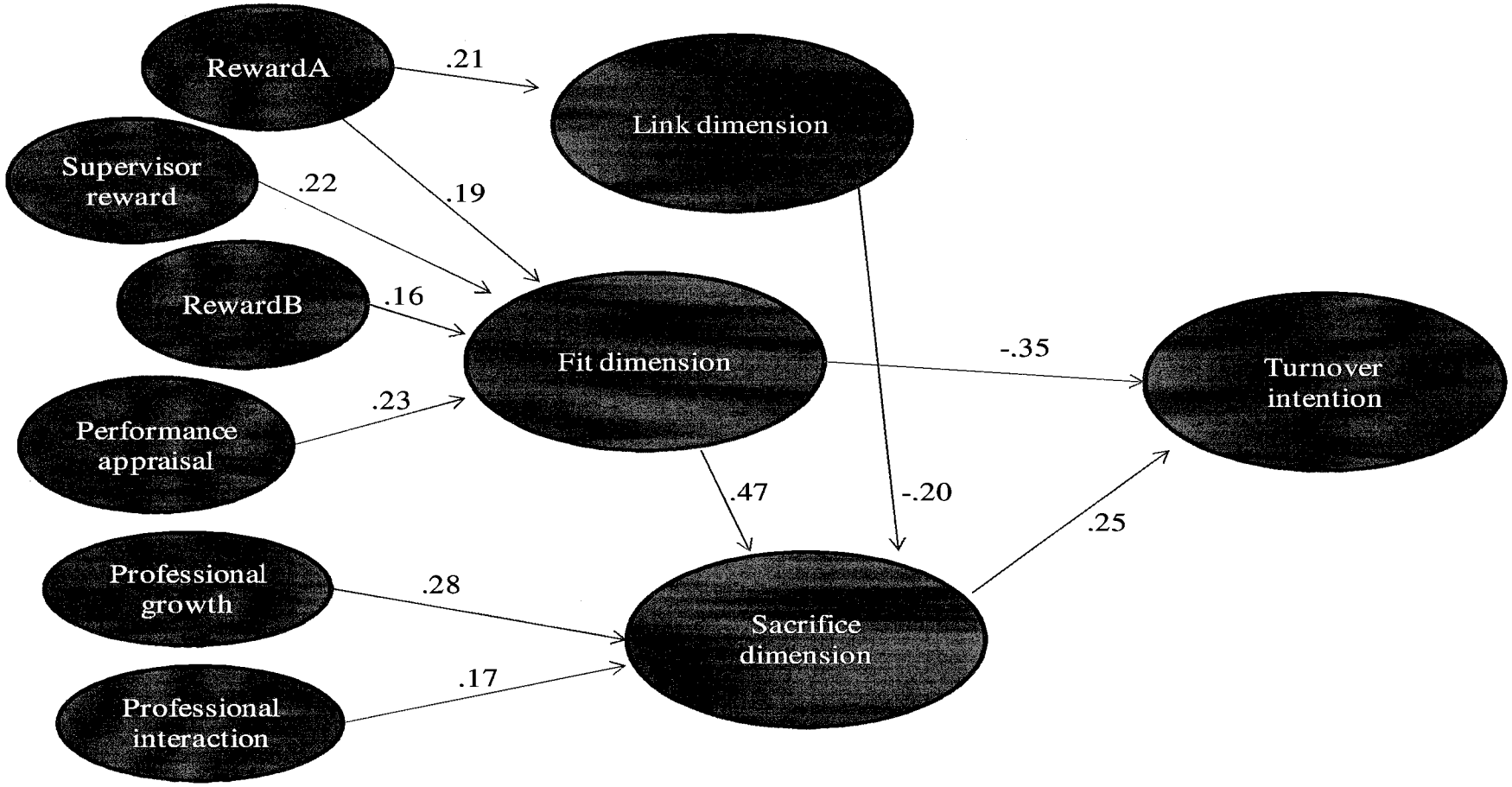

TABLE 1: SURVEY VARIABLES, ITEM EXAMPLES AND CRONBACH'S ALPHA

Variables	Item examples	Cronbach's alpha
HR practices		
Advancement rewards	I work on projects leading to advancement	0.84
Compensation and power rewards	I have a great deal of power and influence on the job	0.80
Performance appraisal	I am regularly given feedback on how I am performing my role	0.74
Supervisory rewards	If I do well I know my supervisor will reward me	0.83
Career development	My supervisor gives me advice on developing my career	0.84
Professional growth	There are opportunities in this organization for developing new skills'	0.84
Professional interaction	There is good communication between groups in this organization	0.83
Job embeddedness dimensions		
Link	How long have you been in your present position	0.75
Fit	I fit with the company's culture	0.90
Sacrifice	My promotional opportunities are excellent here	0.83
Turnover intentions	I will quit my job soon	0.82

TABLE 2: MEAN, STANDARD DEVIATION, RELIABILITY, COEFFICIENT ALPHA AND INTER CORRELATION MATRIX

Variables	Means	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1 Employment status	2.53	.71													
2 Age	1.89	1.38	-0.28**												
3 Organizational rewards (A)	5.10	1.42	-0.14*	0.18**	0.84										
4 Organizational rewards (B)	3.37	1.42	-0.20**	0.10	0.32**	0.80									
5 Supervisory rewards	4.44	1.23	-0.10	0.14*	0.32**	0.46**	0.83								
6 Career development	4.54	1.13	-0.01	0.08	0.29**	0.47**	0.56**	0.74							
7 Professional growth	4.36	.98	-0.03	.08	0.36**	0.57**	0.63**	0.64**	0.84						
8 Professional interaction	5.04	1.02	-0.12*	0.14*	0.42**	0.46**	0.54**	0.61**	0.63**	0.83					
9 Appraisal	4.80	1.08	-0.01	0.09	0.33**	0.51**	0.54**	0.61**	0.67**	0.65**	0.74				
Job embeddedness dimensions															
10 Link	1.58	.70	-0.27**	041**	0.23**	0.11	0.10	0.05	0.03	0.08	0.05	0.75			
11 Fit	4.33	1.06	-0.01	0.13*	0.37**	0.41**	0.46**	0.42**	0.52**	0.43**	0.45**	0.15**	0.62		
12 Sacrifice	4.34	1.08	-0.09	0.12*	0.31**	0.49**	0.52**	0.50**	0.61**	0.56**	0.48**	0.06	0.63**	0.83	
13 Turnover intentions	3.09	.92	-0.13*	-0.08	-0.07	-0.05	-0.03	-0.10	-0.09	-0.10	-0.13*	-0.08	-018*	-0.03	.80

Coefficient Alpha reliability on the diagonal in parentheses N=308,
*p< 0.05, **p< 0.01