

# **The Effects of Commitment-Based Human Resource Management on Organizational Citizenship Behaviors: The Mediating Role of the Psychological Contract**

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Researchers and practitioners have paid much attention to commitment-based human resource management (HRM) because of its positive effects. Most empirical studies provide evidence in support of the positive relationship between commitment-based HRM and firms' performance. One of the key assumptions in this line of research is that a set of human resource practices elicits employees' discretionary behaviors. Literature on organizational citizenship behaviors (OCB) suggests that these behaviors have a positive influence on organizational effectiveness. However, there is little research regarding whether particular human resource practices are related to employees' OCBs. In this paper, we investigated the effects of commitment-based HRM on OCBs. We also studied the mediating role of the psychological contract. Results of regression analyses, based on a survey of 209 employees in 19 firms in Korea, suggest that commitment-based HRM was positively related to OCBs. This relationship was mediated by psychological contract types, but not by psychological contract fulfillment. Limitations and directions for further research are suggested.

**Key words:** commitment-based human resource management, psychological contract, organizational citizenship behavior

## **I. Introduction**

Resource-based view (Barney, 1991) suggests valuable, rare, inimitable, and non-substitutable resources are the sources of organizations' competitive advantage. This view directs our attention toward human resources as a strategic asset of an organization. A firm's competitive advantage will be achieved to the degree that valuable and unique employees not only adequately perform their required job, but exert efforts that are beyond requirements. The importance of extra-role, citizenship, or discretionary behaviors has been stressed by both strategic human resource management (SHRM) and

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Acknowledgement: Financial support from the Institute of Management Research at Seoul National University is gratefully acknowledged.

organizational behavior scholars. Bailey (1993) asserted that human resources are frequently underutilized and that human resource (HR) practices elicit employee discretionary effort, thereby providing returns for any related costs. Huselid (1995) also emphasized the importance of eliciting discretionary contribution even from employees at lower positions in an organization. As organizational structures have become more flexible, organizational citizenship behavior (OCB) has received much attention because it may improve organizational functioning (Turnley, Bolino, Lester, & Bloodgood, 2003). The first purpose of this paper is to validate an underlying assumption that commitment-based human resource management (HRM) elicits employees' discretionary behaviors. In this paper, these are termed as organizational citizenship behaviors. Although it is generally accepted that a certain set of HR practices called a commitment-based, high-involvement, or high-performance HR practices has a positive impact on firm performance, we still do not know whether a set of HR practices elicit discretionary behaviors as assumed. The second purpose of this paper is to verify the mediating role of psychological contract in the relationship between HRM and individual behaviors. Researchers (e.g., Rousseau, 1995; Guzzo & Noonan, 1994) theorized HR practices as communications form and suggested that they fulfill psychological contracts. Psychological contracts have also been regarded as an important lens through which to view organizational citizenship behaviors (Robinson & Morrison, 1995). It is highly possible that psychological contract is a critical mediating variable in explaining the effects of HRM on employees' OCBs. Guest (1999) stressed the importance of psychological contracts in understanding the relationship between HRM and employee outcomes as employment relationships become more individualized and employees' evaluation of HRM play a key role in predicting employees' outcomes.

## 2. Theory & Hypotheses

### a. Commitment-Based Human Resource Management

Since employees are considered an important asset to obtain competitive advantage, commitment-based human resource management first appeared as an ideal model for managing employees in an organization. According to Walton (1985), in a traditional model of HRM focusing on efficiency, employees are considered cost and managed by external regulation based on control, authority, and compliance. This traditional model is not thought to lead to superior performance as employees are less committed and take less initiative. He argued that, by adopting a set of practices named "Commitment-Based Human Resource Practices", an organization in a highly competitive environment can achieve higher performance through genuine commitment of employees. Wood & Albanese (1995) used a similar term, "High Commitment Management".

These researchers used the term “commitment” as they believed high commitment will lead to discretionary behaviors, which may lead to higher productivity. Based on a universalistic perspective that a certain set of HR practices will always lead to higher performance regardless of the contexts, commitment-based HRM has also been called “high-performance work system” (Appelbaum, Bailey, Berg, and Kalleberg, 2000) or “high-involvement work practices” (Guthrie, 2001). These terms have been used interchangeably for describing the same system (Wood, de Menezes, & Lasaosa, 2003). Prior research focusing on multiple HR practices as a system focused on the effects on firm performance. A number of research (e.g., Huselid, 1995; MacDuffie, 1995) reported positive relationship between the so-called ‘best practices’ and firm performance. Research argued that HRM contributes to firm performance through information quality (Preuss, 2003), intellectual capital (Youndt & Snell, 2004), and organizational culture (Den Hartog & Verborg, 2004).

Wright & Boswell (2002) noted there are few studies investigating the impact of multiple HR practices on an individual level of analysis. They also mentioned that considering individual differences, the assumption of much of SHRM research that systems of practices impact employees homogeneously looks tenuous. In spite of its underlying assumption that HR practices as a bundle impacts firm performance via the responses of employees (Macky & Boxall, 2007), such an assumption has rarely been tested. The advocated effects of commitment-based HRM on firm performance posit that individual discretionary efforts will be increased. However, prior studies do not provide much empirical information on whether employees actually exert themselves beyond the requirement level. Recently, researchers are beginning to investigate the unknown mechanisms of HR-performance link with individual attitudinal and behavioral variables included. Through the survey of UK local government employees, Gould-Williams (2003) explored the relationships among HR practices, trust, individual and organizational outcomes. Contrary to the prediction that trust would lead employees to exert greater effort at work, a significant negative effect was reported. The finding also revealed effort did not have positive effect on organizational performance, which is also in opposition to prediction and calls for further researches.

Agarwala (2003) examined the relationship between organizational commitment and perception of innovative HR practices. The results indicated that perceived extent of introduction of innovative HR practices was the most significant predictor of commitment, and not their importance for organizational goal achievement or manager’s satisfaction with implementation. Along this line of research, this study aims to increase our understanding of how HRM may contribute to firm effectiveness.

## b. Psychological Contract

Although there is no single agreed definition of psychological contract, the definition put forward by Rousseau is the most widely used among scholars. According to Rousseau (1995:9), the psychological contract is individual beliefs, shaped by the organization, regarding terms of an exchange agreement between an individual and the organization. Psychological contract is distinct from general expectations and obligations. These are considered part of psychological contract only if they are perceived as a promise (Conway & Briner, 2005). Another important nature of psychological contract is that it is held at the individual level and exists in 'the eyes of the beholder' (Rousseau & McLean Parks, 1993). Contract terms are subject to individual interpretations (Macneil, 1985), therefore, employees in an organization may not have the same psychological contract. In addition, contracts are about "deals" and psychological contract refers to employee's beliefs about what should be offered by an organization in return for what an employee provides or vice versa. However, mutuality is not a requisite condition for psychological contract (Rousseau, 1990). Employees may have different beliefs of promised mutual obligations with organizations. Recent research (e.g., Rousseau & Greller, 1994; Morrison & Robinson, 1997) considers psychological contract to be composed of beliefs regarding exchange relationships that are shaped by the employee's experience in "current" organization.

Psychological contract can be operationalized based on the terms and elements of contract. It can be a form of specific obligations such as job security for loyalty or of rather general types such as relational or transactional obligations. MacNeil (1985) categorized types of psychological contract into relational and transactional contracts. Transactional contracts are short-term, purely of economic focus, characterized by limited involvement of both parties, and mostly job-, task-, and contract-oriented. Relational contracts are long-term and broad, as these entail exchanges of socio-emotional resources. These are largely focused on relationship and development. Although Rousseau (1995) proposed that transactional and relational contracts lie in the opposite ends of the same continuum, researchers (e.g., Arnold, 1996; Millward & Brewerton, 1999) suggest that the two types of contracts are on rather independent dimensions. The reported correlations in previous studies (e.g., Millward & Brewerton, 1999; Raja, Johns, & Ntalianis, 2004) do not strongly support that the two types of contracts are bipolar. Individuals may have both types of psychological contracts to high or low degrees simultaneously.

Psychological contract breach occurs when an individual perceives an organization to have failed to fulfill promised obligations (Robinson & Rousseau, 1994). Although a recent study by Lambert, Edwards, & Cable (2003) suggests

breach and fulfillment may have differential effects on outcomes, most research uses the term fulfillment as the opposite concept of breach based on the above definition. Breach (or fulfillment) is an employee's cognitive evaluation of what was received and what was promised by organization. Breach has been given most attention in psychological contract research. As breach may involve unmet expectations, feelings of inequity, and an impediment to goal progression (Conway & Briner, 2005), it has been used to predict employee outcomes. Based on the discussion above, we developed the following hypotheses.

*Hypothesis 1: Employee's perception of commitment-based HRM will be positively related to OCBs.*

*Hypothesis 2: Employee's perception of commitment-based HRM will be positively related to relational contracts.*

*Hypothesis 3: Employee's perception of commitment-based HRM will be negatively related to transactional contracts.*

### c. Organizational Citizenship Behavior

Organizational citizenship behavior was defined as "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization (Organ, 1988: 4)". We followed the revised definition by Organ (1997) in that it opens up the way to include citizenship behaviors on jobs that may also be recognized and rewarded by organization.

The dimensionality of OCB has been suggested in a quite different ways by scholars. Smith, Organ, & Near (1983) first categorized OCB into two dimensions: altruism and generalized compliance. Organ (1988) proposed an expanded five-dimension framework comprising altruism, courtesy, conscientiousness, civic virtue, and sportsmanship. Although Organ's (1988) taxonomy has been used by most scholars, it is also supported that behaviors can be more adequately categorized with respect to its target. Based on Organ's (1988) taxonomy, Williams & Anderson (1991) proposed a two-dimensional framework of OCBO and OCBI. Recently, Coleman & Borman (2000) delineated the conceptual organization of the contextual or citizenship performance domains. Through content sorting of 27 citizenship behaviors and EFA, multidimensional scaling, and cluster analysis, they provided an integrated model of citizenship behavior comprising three categories. Their first category of interpersonal citizenship performance includes altruism and courtesy of Organ's (1998) framework and is similar to OCBI of Williams & Anderson (1991). The second category, organizational citizenship performance, includes Organ's (1998) sportsmanship, civic virtue, and conscientiousness pertaining to OCBO of Williams & Anderson (1991). The integrated model of Coleman & Borman

(2000) is comprehensive in that it includes the third category of job/task citizenship performance (Chiu & Tsai, 2006).

According to the review of Podsakoff, Mackenzie, Paine, & Bachrach (2000), prior empirical researches on the antecedents of OCBs found that job attitudes, task variables, and leadership behaviors are strongly related to OCBs. Job satisfaction, organizational commitment, and perceptions of fairness appeared to be important determinants of OCBs. In addition, task feedback, task routinization, and intrinsically satisfying tasks were consistently related to OCBs. Although a key tenet of Organ's (1988) definition of OCB is its impact on organizational effectiveness, prior research did not adequately deal with HR practices as potential antecedents of OCBs. Chiu & Tsai (2007) investigated the effects of profit sharing on OCBs. The reported stock-based profit-sharing and combined-total profit sharing by employees influenced OCBs through partial mediation of organizational commitment, whereas cash-based profit-sharing had no effect on OCBs. It was also found that team-based gain sharing has a positive effect on teamwork dimension of OCB (O'Bannon & Pearce, 1999). Few empirical researches investigated the relationship between multiple HR practices and OCBs. Based on the data obtained from hotels, Sun, Aryee, & Law (2007) found high-performance HR practices are positively related to service-oriented OCBs. Paré & Tremblay (2007) found high-involvement HR practices reported by IT employees have indirect effects on OCBs through mediation of affective commitment and procedural justice. Morrison (1996) maintained that because HRM sets the tone and conditions of employee-employer relationship, an organization can foster OCBs through human resource management. However, what specific HR practices can be used to elicit OCBs have not been empirically tested. Further researches investigating the effects on OCBs of not only individual HR practices but of HRM as a bundle are necessary. Based on the above discussion, we developed the following hypotheses.

*Hypothesis 4: Employee's perception of commitment-based HRM will be positively related to psychological contract fulfillment.*

*Hypothesis 5: Relational contracts will be positively related to OCBs.*

*Hypothesis 6: Transactional contracts will be negatively related to OCBs.*

*Hypothesis 7: Psychological contract fulfillment will be positively related to OCBs.*

*Hypothesis 8: Psychological contract types will mediate the relationship between employee's perception of commitment-based HRM and OCBs.*

*Hypothesis 9: Psychological contract fulfillment will mediate the relationship between employee's perception of commitment-based HRM and OCBs.*

### 3. Methods

We collected data using a survey of 19 companies in various industries in Korea in 2007. To ensure that organizations have formalized HR systems (Huselid, 1995), only the firms with more than 100 employees were selected. Of 280 questionnaires distributed, 235 were returned (response rate: 83.9 %). After eliminating data with insincere response or any missing variable, 209 data from 19 companies were used in the final analysis. The number of employees per company ranges from 5 to 20 with average 11. The sample consisted of 5 companies from manufacturing industry, 8 from finance and insurance industry, 5 from business activities industry, and 1 from electronic, gas, water service industry.

### 4. Results

Descriptive statistics and correlations are in Table 1.

Hypothesis 1 posited that employee's perception of commitment based HRM will be positively related to OCB. As shown in Model 1 of Table 2, commitment-based HRM was a significant predictor of all types of OCB ( $\beta = .44$ ,  $p < .001$  for OCBJ;  $\beta = .37$ ,  $p < .001$  for OCBO;  $\beta = .35$ ,  $p < .001$  for OCBI). Specifically, participation/job security was positively associated with OCBJ ( $\beta = .30$ ,  $p < .01$ ) and OCBI ( $\beta = .23$ ,  $p < .05$ ). Internal mobility was positively related to OCBJ ( $\beta = .16$ ,  $p < .05$ ) and OCBO ( $\beta = .17$ ,  $p < .05$ ) and job design was positively related to OCBI ( $\beta = .19$ ,  $p < .05$ ).

Hypothesis 2 and 3 predicted that commitment-based HRM will be positively associated with relational contracts and negatively associated with transactional contracts. As can be seen in Table 3, findings supported both hypotheses ( $\beta = .72$ ,  $p < .001$  for relational contracts;  $\beta = -.49$ ,  $p < .001$  for transactional contracts). Results also showed a significant positive relationship between commitment-based HRM and psychological contract fulfillment, thereby supporting Hypothesis 4 ( $\beta = .56$ ,  $p < .001$ ). Specifically, all the factors except for training were significant predictors of relational contracts ( $\beta = .28$ ,  $p < .001$  for participation/job security;  $\beta = .20$ ,  $p < .001$  for compensation/performance appraisal;  $\beta = .32$ ,  $p < .001$  for internal mobility;  $\beta = .14$ ,  $p < .05$  for job design), while only participation/job security ( $\beta = -.26$ ,  $p < .01$ ). Job design was significantly related to transactional contracts ( $\beta = -.26$ ,  $p < .001$ ). Compensation/performance appraisal ( $\beta = .24$ ,  $p < .01$ ) and internal mobility ( $\beta = .27$ ,  $p < .001$ ) were positively associated with psychological contract fulfillment.

To test Hypothesis 5 and 6, We entered both types of psychological contract simultaneously. Relational contracts were positively related with OCBJ

( $\beta = .45$ ,  $p < .001$ ), OCBO ( $\beta = .46$ ,  $p < .001$ ), and OCBI ( $\beta = .45$ ,  $p < .001$ ). OCBJ ( $\beta = -.22$ ,  $p < .001$ ) and OCBI ( $\beta = -.17$ ,  $p < .001$ ) showed a significant, negative association with transactional contracts, however, OCBO was not significantly related to transactional contracts. Hence, Hypothesis 6 was partially supported.

Psychological contract fulfillment was in a positive relationship with all types of OCB ( $\beta = .33$ ,  $p < .001$  for OCBJ;  $\beta = .26$ ,  $p < .001$  for OCBO;  $\beta = .19$ ,  $p < .001$  for OCBI), thereby supporting Hypothesis 7.

Finally, we tested the mediation effects of psychological contract types and fulfillment in the relationship between commitment-based HRM and OCBs. The results above confirmed the relationships between independent and dependent variables (Hypothesis 1), and between independent and mediating variables (Hypothesis 2, 3 and 4). As shown in model 2 and 3 of Table 5, the beta coefficient of psychological contract fulfillment was not significant when entered with HRM variables, thereby not supporting Hypothesis 9 (Baron & Kenny, 1986). After entering both types of psychological contract, the beta coefficients associated with commitment-based HRM were not significant, whereas the beta coefficients of two contract types were significant (see model 2 and 3 in Table 4). The additional variances explained for OCBs by commitment-based HRM were not significant, thereby supporting Hypothesis 8.

## 5. Discussion

### a. Contributions and Implications

This paper tested the effects of commitment-based HRM on OCBs within psychological contract framework. We tested one of the implicit assumptions that commitment-based HRM elicits discretionary behaviors of employees, which ultimately contribute to firm's competitive advantage. This trial for delineating underlying mechanism is important in that, in spite of many researches on HR-performance link, the relationship is unclear after controlling prior performance, which also necessitates investigation of the mechanism. While it is essential to conduct a longitudinal research with an inclusive set of control variables, this paper contributed to our understanding of HR-performance link by focusing on employees' key behaviors known as contributing to competitive advantage. Although the result of this paper alone does not ensure that commitment-based HRM contributes to organizational effectiveness through OCBs, it was suggested that OCB has a positive influence on organizational effectiveness (Podsakoff & MacKenzie, 1994; Walz & Niehoff, 1996).



By adopting psychological contract framework, this paper also showed the mediating role of psychological contract types in the relationship between commitment-based HRM on OCB. As researchers (e.g., Walton, 1985; Arthur, 1994; Huselid, 1995) asserted, commitment-based HRM may have positive effects both on organizational performance and employees in workplace. Employees under commitment-based HRM have more obligations on social exchange with their organization and workplace can be more meaningful to them. As employees with high relational contracts exert OCBs, in the aggregate, they will contribute to competitive advantage of an organization. Using a certain set of HR practices known to elicit employee's commitment will be a win-win strategy for employer and employees.

## 2. Limitations and Suggestions for Future Studies

There are some limitations which necessitate caution in accepting the results of this paper and call for future studies. First, we followed the traditional view that breach and fulfillment are on a single continuum, using fulfillment as the opposite concept of breach. However, a recent research by Lambert et al. (2003) suggests psychological contract fulfillment does not have linear effects on outcomes. They found job satisfaction does not increase linearly when fulfillment is beyond metes. In addition, the effects of exceeded promises also varied depending on items. Exceeded promises on pay had a positive effect on job satisfaction, whereas exceeded promises on task variety had a negative effect. This paper treated HRM as a bundle of practices and did not adequately deal with complex differential effects of breach and fulfillment on outcomes.

Second, we collected data from the same respondents. Some researchers (i.e., Organ & Konovsky, 1989, Coleman & Borman, 2000) argue managers may not have enough chances to observe employees' OCB. For instance, managers may have imperfect knowledge when they evaluate whether employees put efforts on self-development regarding their jobs. However, to minimize common method bias we changed the order of questions in survey questionnaires to attenuate the possible priming effects and motive of consistency (Converse, 1986). The result of confirmatory factor analysis also showed one-factor model did not produce a better fit (CFI = .50, RMSEA = 1.00) than 7-factor model (CFI = .68, RMSEA = .08) and the chi-square difference between the two model was significant ( $\Delta\chi^2 = 1246.46$ ,  $df = 21$ ,  $p < .001$ ). However, Harman's one factor test does not guarantee absence of single source bias.

Third, a more valid measure of psychological contract types would have produced more accurate results. PCS used in this study has its own limitations in that it does not adequately capture "promised" obligations in exchange. However, the other measure of PCI does not measure reciprocal obligations at

the same time and includes a hybrid form of balanced contracts, which is not a dominant categorization of contract types. It is necessary to develop a more valid and accurate measure of psychological contract types. Fourth, research with a longitudinal design will aid our understanding of the relationship between the two mediating variables. Psychological contract fulfillment is distinct from psychological contract types, but they are hard to separate in cross-sectional studies. Although it was not the focus of this paper, to delineate the relationship between psychological contract types and fulfillment, a longitudinal study is necessary. Finally, a multi-level research treating HRM as an organizational-level variable will provide more practical implications. Measuring HRM in use and comparing the differential effects across organizations will produce results with more practical implications for managers. This may require randomized sampling of employees for each organization and gathering information of HRM in use from employees.

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Table 1.  
 Descriptive Statistics, reliabilities and correlations among variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Age	29.68	4.86																		
2. Gender	.69	.47	.25***																	
3. Tenure	45.11	53.5	.86***	.02																
4. Labor union	.01	.09	-.04	-.14	-.01															
5. Occupational level	.85	.36	.60***	.08	.57***	-.04														
6. Employment types	.92	.27	.11	.25***	.04	.03	-.03													
7. HRM	69.51	13.1	.14*	.17*	.12	-.10	-.05	.14*	(.89)											
8. Participation/ Job security	20.08	5.30	.12	.12	.11	-.00	-.03	.09	.86***	(.83)										
9. Compensation/Appraisal	18.11	4.30	.11	.09	.11	-.13	-.06	.06	.84***	.62***	(.87)									
10. Training	8.95	2.93	.18**	.11	.20**	-.10	-.09	.09	.66***	.43***	.48***	(.93)								
11. Internal mobility	13.33	2.97	.08	.12	.11	-.11	.02	.18**	.72**	.49***	.52***	.39***	(.67)							
12. Job design	9.05	2.08	-.04	.22**	-.15*	-.05	.01	.14*	.44***	.30***	.25***	.13	.21**	(.51)						
13. Transactional contracts	37.21	8.63	.02	-.11	.03	-.12	.10	-.05	-.45***	-.46***	-.31***	-.18**	-.26***	-.35***	(.82)					
14. Relational contracts	58.20	11.2	.18**	.16*	.12	.06	-.09	.09	.70***	.64***	.59***	.34***	.55***	.31***	-.52***	(.92)				
15. Contract Fulfillment	17.44	4.44	-.00	.26***	-.03	.01	.06	.06	.55***	.51***	.46***	.24***	.46***	.22**	-.35***	.60***	(.89)			
16. OCBJ	20.21	3.30	.20**	.21**	.17*	-.01	-.13	-.01	.46***	.46***	.39***	.19**	.30***	.22**	-.49***	.65***	.40***	(.76)		
17. OCBO	34.10	3.83	.02	-.02	.05	.06	.01	.10	.38***	.35***	.30***	.27***	.30***	.08	-.29***	.50***	.34***	.39***	(.70)	
18. OCBI	34.67	5.25	.02	-.03	.03	.10	.06	.02	.35***	.39***	.21**	.20**	.22**	.21**	-.41***	.53***	.25***	.44***	.42***	(.82)

n = 209 \*\*\* p < .001 \*\* p < .01 \* p < .05 For multiple-item measures Cronbach's alpha are presented on the diagonal. 18 company dummy variables are not reported.

**Table 2. Results of regression analyses for the relationship  
 between commitment-based HRM and OCB<sup>1</sup>**

	OCBJ		OCBO		OCBI	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Commitment-based HRM	.44***		.37***		.35***	
Participation/Job security		.30**		.03		.23*
Compensation/Performance appraisal		.04		.16		-.05
Training		-.04		.11		.04
Internal mobility		.16*		.17*		.12

<sup>1</sup> For the following tables from Table 2 to 5, the results of regression analyses after controlling age, gender, tenure in current organization, labor union membership, occupational level, employment types, and company are reported.

Standardized coefficients are reported.

Number of samples are 209.

p\* < .05

p\*\* < .01

p\*\*\* < .001

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Job design		.08		.04		.19*
R <sup>2</sup>	.38	.40	.34	.35	.24	.27
Adjusted R <sup>2</sup>	.30	.30	.25	.25	.14	.15
ΔR <sup>2</sup>	.14	.16	.10	.11	.09	.12
Δ F	40.75***	9.44***	27.18***	5.90***	21.81***	5.68***

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**Table 3. Results of regression analyses for the relationships between a commitment-based HRM, psychological contract types, and fulfillment**

	Relational Contracts		Transactional Contracts		Psychological contract fulfillment	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	Commitment-based HRM	.72***		-.49***		.56***
Participation/Job security		.28***		-.26**		.17
Compensation/Performance appraisal		.20***		-.05		.24**
Training		.00		-.06		-.05
Internal mobility		.32***		-.09		.27***
Job design		.14*		-.26***		.07
R <sup>2</sup>	.78	.64	.34	.38	.49	.51
Adjusted R <sup>2</sup>	.56	.58	.07	.28	.41	.43
ΔR <sup>2</sup>	.38	.40	.18	.21	.23	.25
Δ F	177.99***	39.51***	48.67***	11.84***	79.82***	18.23***



**Table 4. Results of regression analyses for the relationship between psychological contract types and OCB**

	OCBJ			OCBO			OCBI		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Relational Contracts	.50***	.54***	.53***	.46***	.41***	.43***	.45***	.52***	.54***
Transactional Contracts	-.22**	-.23***	-.23**	-.00	.01	-.01	-.17**	-.19**	-.16**
Commitment-based HRM		-.06			.08			-.11	
Participation/Job security			.10			-.09			.04
Compensation/Performance appraisal			-.08			.07			-.17
Training			-.05			.11			.03
Internal mobility			-.03			.03			-.06
Job design			-.05			-.02			.08
R <sup>2</sup>	.56	.56	.75	.41	.41	.42	.39	.39	.41
Adjusted R <sup>2</sup>	.49	.49	.49	.32	.32	.32	.30	.30	.30
ΔR <sup>2</sup>	.31	.00	.01	.16	.00	.01	.24	.00	.02
Δ F	63.63***	.53	.63	24.51***	.60	.78	35.15***	1.30	1.13

**Table 5. Results of regression analyses for the relationship between psychological contract fulfillment and OCB**

	OCBJ			OCBO			OCBI		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Psychological Contract Fulfillment	.33***	.13	.12	.26***	.09	.08	.19**	-.01	-.01
Commitment-based HRM		.36***			.32***			.36***	
Participation/Job security			.28**			.02			.23*
Compensation/Performance appraisal			.01			.14			-.05
Training			-.03			.12			.04
Internal mobility			.13			.15			.13
Job design			.08			.04			.19*
R <sup>2</sup>	.32	.39	.41	.30	.35	.36	.18	.24	.27
Adjusted R <sup>2</sup>	.23	.30	.31	.20	.26	.25	.06	.13	.14
ΔR <sup>2</sup>	.08	.07	.08	.05	.05	.06	.03	.07	.09
Δ F	21.77***	19.79***	5.04***	13.31***	14.11***	3.26**	5.74**	15.51***	4.39**