

Seoul Journal of Business

Volume 12, Number 1 (June 2006)

Is It the Company's or Mine? Perceived Organizational Justice Practices and the Ownership of Job Knowledge

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Abstract

This study examined the factors that determine a worker's willingness to share private knowledge gained on the job. The recent vogue in knowledge management studies typically assumes that workers naturally are willing to share what they have learned, but economic

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The authors wish to thank Dean Alan Oppenheim at Montclair State University for his continued support of this project and also the leadership teams of the participating company for the hospitality and interest in the outcome of this effort. This study was supported by the Institute of Management Research of Seoul National University.

theory suggests that there should be powerful disincentives to share. We explored justice practices, individual personality, the psychological contract, organizational commitment and their relationships to worker ownership. Results indicated that procedural and distributive justice had opposite effects on knowledge ownership, while psychological contract breach and continuance commitment had positive, direct effects on knowledge ownership.

Keywords: knowledge ownership, organizational justice, psychological contract breadth, organizational commitment

INTRODUCTION

Adam Smith's justly famous explanations of why the division of labor is effective include the fact that employees learn very specific skills that make them more efficient (Smith 1910). This logic has made workers specialize in certain tasks and organizations help workers develop skills and knowledge as well as coordinate their application. However, in this information era, new technology and knowledge that can add value to an organization become more complicated, and this requires combining and sharing knowledge and skills possessed by several employees. This necessity to combine and share information creates an interesting dilemma. From the employees' viewpoints, why should workers share their skills and private knowledge gained on the job with others, especially with their bosses? This study intends to address this important research question and understand why some employees may be more willing to share knowledge than others.

After all, the accumulation of skills and knowledge about how to do one's job represents potentially valuable sources of monopoly rents that presumably help guarantee employment and higher wages. At first glance it is hard to see why employees should want voluntarily to open up access to their private knowledge without some guarantee to compensate them for the use of their private property. In fact, there is considerable evidence in the economics and sociology literature that employees do not readily surrender their private knowledge, but instead use it to bargain in a ceaseless struggle with employers for the value their labor has created. For example, there is a lengthy literature that discusses worker withholding of

knowledge (Crozier 1964; Pfeffer 1982; Williamson 1975). In this tradition employees naturally withhold private information and use it to bargain for a share of value creation. Furthermore, principal/agent theory (Jensen and Meckling 1976) assumes that employees must receive economic incentives to compensate for the use of the knowledge assets they own. In this view of the worker, cooperation is not a natural act; it must be pried from the worker through more or less gentle incentives on one end of the spectrum to the brandishing of naked power on the other end. This view is consistent with a property rights concept of knowledge ownership in which the worker has the residual control of the rights to the knowledge assets by default.

In the theory of property rights, the acid test of ownership is the right to exclude others from using an asset without compensation or permission (Milgrom and Roberts 1992; Besanko, Dranove, and Shanley 1999; Jensen and Meckling 1992). If employees own their knowledge, or believe that they do, then they believe they have the property right to deny access to others unless they receive compensation. In the business firm, of course, few employees have enforceable employment contracts (of any sort), but fewer still are under contract to the firm to offer up what they know. In fact, it would be extremely difficult to write an enforceable contract requiring an employee to contribute everything they have learned because such a contract could not be enforced since it could not be verified by a third party.

Davenport, Eccles, and Prusak (1992) remind us that the interior of the firm is a knowledge market in which knowledge is traded back and forth. They also indicate that information can become impacted and monopolized as we have discussed. The question is: What brings these markets to life in some firms and not in others? If employees cannot be put under contractual obligation to share fully what they have learned and if there are incentives for them not to share, then why do they ever share? In order to address these research questions, employees from a software firm in the advertising industry were surveyed regarding perceptions of their ownership of job knowledge.

DEVELOPMENT OF HYPOTHESES

Figure 1 depicts the hypotheses we developed to explain the phenomenon of knowledge sharing. There are several reasons workers might share knowledge. One possibility is that workers may not always believe that they own the knowledge that they have accumulated and that it is communal property. That is, employees freely share what they know since the knowledge belongs to the organization rather than themselves. In the organizational commitment literature (Meyer and Allen 1997) the concept of affective commitment involves the merging of the worker's self with the organization he or she works for. Deep and abiding commitment to an organization might well inspire workers to conflate themselves with the organization in which they exist. Knowledge ownership and firm membership become coterminous. In addition to affective commitment, researchers have distinguished two other types of commitment: normative and continuance commitment (Meyer and Allen 1997). Normative commitment is a felt obligation to continue working for the organization because it is the right thing to do. Continuance commitment captures the idea that the employee will incur costs for changing employers that will not be recovered. In short, continuing employment is preferable to the alternative. Economists would model continuance commitment as the participation constraint in incentive equations. In our survey work we used scales that measured all three versions of commitment, but our commitment hypothesis applies equally to all three versions of commitment.

H1: Individuals committed to the organization are less likely to claim individual ownership of job knowledge. In other words, organizational commitment is negatively related to individual ownership of job knowledge.

A second possibility is that workers share the knowledge with the organization because it has kept its obligations and the workers want to give back something to the company. This possibility is related to notions of psychological contract (e.g., Robinson and Rousseau 1994). According to the psychological contract literature, workers assess how well organizations keep

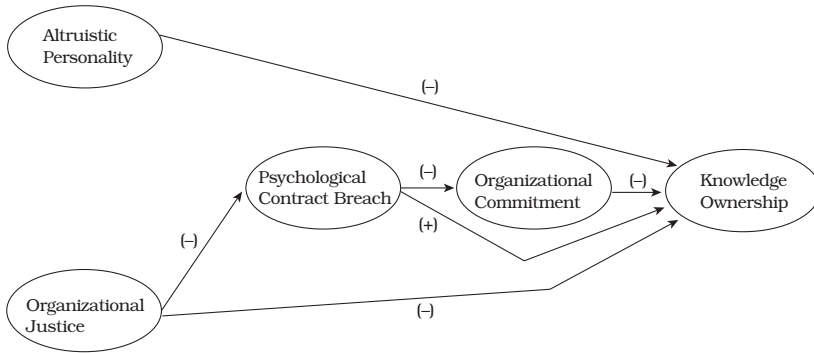


Figure 1. Hypothesized Model

or violate promises and obligations. This perception (i.e., psychological contract breach) influences their behaviors such as organizational citizenship behaviors (e.g., Coyle-Shapiro, 2003). That is, individuals who perceive a breach in their psychological contract less likely to engage in extra-role behaviors (e.g., helping coworkers, being a team-player) that may benefit the organization. We argue that this perception influences the individual worker's willingness to share his or her knowledge. When organizations keep their promises, workers are more likely to share their personal knowledge. In contrast, they want to keep the knowledge private if they perceive the organization violates the psychological contract. In addition, psychological contract breach can influence employee's organizational commitment. When the organization does not keep the psychological contract, employees are likely to feel they are betrayed and become less loyal to the organization. Therefore, we expect following.

H2: Individuals who perceive that the organization violates its psychological contract are more likely to claim individual ownership of job knowledge. In other words, psychological contract breach (PCB) is positively related to individual ownership of job knowledge.

H3: Individuals who perceive that the organization violates its psychological contract have lower organizational commitment. In other words, psychological contract breach (PCB) is negatively related to organizational commitment.

Sharing knowledge freely might be a characteristic of an altruistic personality. In general, personality traits (e.g., altruism, conscientiousness) have been considered as important factors that determine individual attitudes and behaviors. Altruism involves getting pleasure from giving to others what people would like to receive (Vaillant 2000). Although no research has previously examined the role of altruism in sharing of job knowledge, it stands to reason that it should have direct influence on the degree to which individuals perceive they have ownership of their knowledge. For example, altruistic employees should be more willing to share their personal property with others. Altruistic people should also be less likely to claim the individual ownership of products, including knowledge they produce at work. Thus, yet another way to approach knowledge sharing is to view it as an altruistic response to supervisor behavior and organizational support behavior.

H4: Altruistic individuals are less likely to claim individual ownership of knowledge. In other words, altruistic personality is negatively related to individual ownership of job knowledge.

A fourth possibility is that workers feel they will receive just compensation for disclosing their job knowledge, that the firm will honor somehow its obligation to reward them for sharing. The relevant literature for this perspective is the extensive work done on organizational justice (Konovsky 2000). Researchers in the field of organizational justice consider justice practices to be multidimensional. They distinguish between procedural justice, distributive justice, and other justice practices (Colquitt et al. 2001). In this paper we consider results for procedural justice and distributional justice. Procedural justice concerns perceptions of how decisions are made regarding the distribution of outcomes. In contrast, distributive justice concerns the perceived fairness of those outcomes themselves (Colquitt et al. 2001). If workers think the organization treats employees justly, they may believe that the organization will take steps to respect property rights and also reward them for their sharing behaviors.

H5: Individuals who perceive that organizations treat employees fairly claim the individual ownership of job knowledge less. In other words, organizational justice is negatively related to individual ownership of job knowledge.

In addition, we propose that justice perception can influence the ownership of knowledge indirectly through psychological contract breach. Even though it is not written in the contract explicitly, employees believe that the organization has an obligation to treat all the employees fairly. For instance, employees expect the company to distribute rewards fairly and use fair procedures to express their views and perspectives when they make certain decisions such as merit increase, promotion, and the like. Therefore, if the organization does not treat employees fairly, the employees form a perception of psychological breach, which in turn will influence the ownership of job knowledge.

H6: Perception of justice is negatively related to perception of psychological contract breach.

METHODS

Participants

We studied perceptions of ownership of knowledge among samples of workers at a software firm supporting the advertising industry with custom programming and processing services. In total, questionnaires were distributed to 160 staff members. One hundred twenty surveys were returned for a response rate of 75%. Approximately 60% of the respondents were female and 83.9% of the respondents had at least a Bachelor's degree. The mean age was 33.63 years with 8.24 standard deviation (SD). On average, participants had 70.67 months with the current organization, had job tenure of 42.21 months, and 68.39 months of occupational tenure.

Measures

Knowledge ownership. Knowledge ownership consisted of three questions developed by the authors since they were unaware of any previous work in this area from which they could adopt scales. The inventory deals with ownership of the knowledge gained in the job and the items are listed in appendix A. Knowledge ownership was measured on a seven-point Likert

scale (ranging from 1 = strongly disagree to 7 = strongly agree). The reliability of the scale was .85 as assessed by coefficient alpha.

Organizational commitment. Affective (8 items), normative (6 items), and continuance commitment (7 items) scales were taken from Meyer and Allen (1991). Organizational commitment was measured on a seven-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree). Cronbach's α s for these three dimensions were .93, .86, and .70, respectively.

Organizational justice. We adapted and used Colquitt et al.'s (2001) scales for measuring procedure (7 items) and distribution (4 items) organizational justice. Organizational justice was measured on a seven-point Likert scale (ranging from 1 = not at all to 7 = very highly). Cronbach's α s for these two dimensions were .91 and .93, respectively.

Psychological contract breach. Psychological contract violation was measured with 6 items developed by Robinson and Morrison (2000). Psychological contract breach were measured on a seven-point Likert scale (ranging from 1 = strongly disagree to 7 = strongly agree). The reliability of this scale was .91.

Altruistic personality. Altruistic personality was measured with 10 items developed by Goldberg (1999). Altruistic personality was measured on a five-point Likert scale (ranging from 1 = very accurate to 5 = very inaccurate). The reliability of this scale was .77.

RESULTS

We performed a routine investigation of item reliability using Cronbach's alpha for the latent citizenship, justice, commitment, contract, and knowledge ownership variables. All the reliabilities were acceptable (above 0.70). In order to perform the later structural equations models we report, the latent variables were estimated by summing specific questionnaire items after doing any necessary reverse coding of specific items. Table 1 reports the correlations among the latent variables and their means and standard deviations.

Inspecting table 1, we find that the measures of affective commitment and normative commitment are positively correlated

Table 1. Means, Standard Deviations, Reliabilities, and Correlations Among Variables

	Mean	Standard Deviation	Cronbach's Alpha	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Altruism	4.26	.40	.77							
(2) Affective Organizational Commitment	4.29	1.44	.93	.21*						
(3) Normative Organizational Commitment	3.95	1.22	.86	.02	.60*					
(4) Continuance Organizational Commitment	3.65	1.06	.70	.00	.08	.14				
(5) Procedural Justice	4.62	1.15	.91	.25**	.47**	.20*	-.16			
(6) Distributive Justice	4.55	1.30	.93	.25**	.47**	.33**	-.10	.76**		
(7) Psychological Contract Breach	3.02	1.17	.91	-.17	-.48**	-.48**	.08	-.37**	-.48**	
(8) Knowledge Ownership	2.89	1.47	.85	-.05	-.05	-.03	.21*	-.15	-.04	.20*

Note. N=112. * p < 0.05 (2-tailed). ** p < 0.01 (2-tailed).

(0.60), which is consistent with published values reported in Meyer and Allen (1997). Continuance commitment is not correlated with either of these other forms of commitment, which is generally the case in previous research. Psychological contract breach is significantly negatively correlated with the two justice variables, but the magnitudes of these correlations are somewhat lower than previous findings. Psychological contract breach is also negatively related to affective and normative commitment. Both continuance commitment and altruism have non-significant zero order correlations with psychological contract breach. Finally, psychological contract breach and knowledge ownership were positively correlated with each other.

We investigated the structural relationships among the variables using EQS (Bentler 1995). Altruism and the two justice variables were treated as pure exogenous variables. Psychological contract breach was treated as mediating the relationships

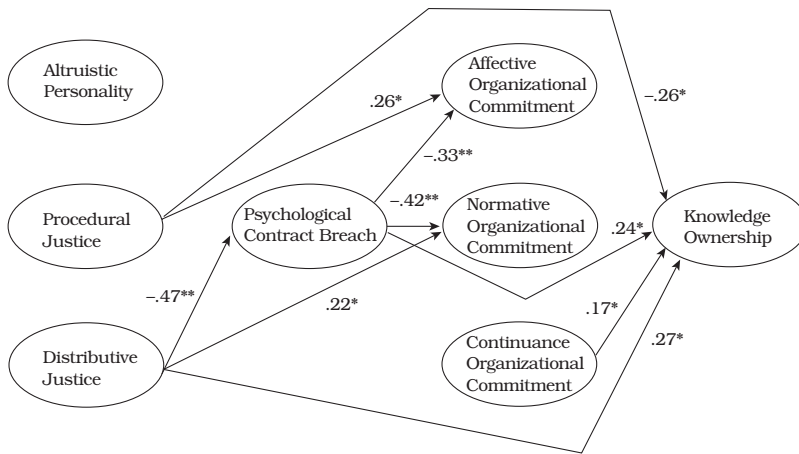


Figure 2. Results of Structural Equation Modeling

Note. Only significant paths are shown. Standardized coefficients. * $p < .05$, ** $p, .01$. CFI = .975; SRMR = .74; RMSEA = .095; Chi-Square = 11.97 with 6 degree of freedom

between justice and commitment and also between justice and ownership. The commitment variables were treated as mediating the relationships between justice and psychological contract breach and ownership. We made provision for testing both direct and indirect causality between justice variables and ownership. Refer to figure 2 for a diagram of the final model we estimated.

The structural equations model fits the data quite well as indicated by the goodness of fit metrics (CFI = .975; SRMR = .74; RMSEA = .095; Chi-Square = 11.97 with 6 degree of freedom). The Chi-square statistic is, however, significant at well beyond the .10 level. This Chi-square level indicates that there are certainly opportunities to improve on the model as more sample observations are accumulated.

The first hypothesis suggested a negative effect of organizational commitment on individual ownership of knowledge. The SEM results indicate that there were no significant relationships between affective and normative commitment and individual knowledge ownership. However, continuance commitment is positively related to knowledge ownership ($\beta = .17$, $p \leq .10$), which is opposite of our expectation.

Therefore, hypothesis 1 was not supported.

Hypothesis 2 stated that employees claim personal ownership of knowledge when the organization violates a psychological contract. The results indicate a significant relationship between psychological contract violation and knowledge ownership ($\beta = .24, p \leq .05$). These results supported hypothesis 2. When workers feel the organization has not honored its obligations to them they are more likely to claim ownership of their job knowledge.

Hypothesis 3 proposed a negative effect of PCB on organizational commitment. The results demonstrated significant negative relationships between PCB and affective organizational commitment ($\beta = -.33, p \leq .01$), and between PCB and normative organizational commitment ($\beta = -.42, p \leq .01$). However, there is no significant effect of PCB on continuance organizational commitment. Therefore, hypothesis 3 was only partially supported.

Hypothesis 4 suggested a negative relationship between altruistic personality and personal ownership of knowledge. The results showed that there was no significant relationship between altruistic personality and knowledge ownership. Therefore, hypothesis 4 was not supported. Workers with altruistic personality components are not more likely to freely share their job knowledge. This suggests that recruitment and selection procedures designed to bias inclusion of altruistic people are not justified on the ground that they will be more willing to share specific job knowledge.

Hypothesis 5 predicted negative effects of organizational justice on knowledge ownership. The results showed a significant negative effect of procedural justice on feelings of knowledge ownership ($\beta = -.26, p \leq .10$), but a significant positive effect of distributive justice on knowledge ownership ($\beta = .27, p \leq .10$). Thus, the hypothesis 5 was partially supported. Workers in firms with procedural justice are indeed more willing to share their job knowledge, as predicted in hypothesis 5. Procedural justice entails provision of worker rights safeguards and it seems probable that in an environment in which rights are protected workers will be more willing to offer up their job knowledge. However, in our data the impact of distributive justice is contrary to our hypothesis 5. Distributive justice means that the

organization will provide a fair distribution of outcomes for workers. Our results seem to indicate that workers become more concerned about sharing their knowledge when they believe that the employer will distribute outcomes in a fair manner. This contradicts our hypothesis 4.

Hypothesis 6 suggests that perceptions of unfair procedural and distributive justice practices will lead to negative effects on psychological contract breach. Indeed, consistent with this expectation the analysis yielded a significant negative effect of distributive justice on psychological contract. However, procedural justice does not have significant impact. Therefore, hypothesis 6 was partially supported.

DISCUSSION

This study investigates why employees share their knowledge with others and what makes employees claim individual ownership of their job knowledge less. We explored the effects of individual employee personality (altruism), perceptions (justice and psychological contract breach), and attitude (organizational commitment) on knowledge ownership.

Knowledge ownership appears to be inversely related to procedural justice. When workers perceive that procedures are not in place to offer justice they tend to view their job knowledge as their own. They seem to believe that they have greater discretionary power over their knowledge and are less inclined to share it when they believe that justice procedures are weak, biased, or do not contain rights of appeal ("voice"). On the other hand, distributive justice has the impact of increasing worker perception of knowledge ownership. This implies that when organizations distribute rewards fairly, employees claim knowledge ownership and are less inclined to share their knowledge with others and are more likely to reserve it for their own use. In short, the two justice variables, procedure and distribution, act in opposite directions on job knowledge ownership. Procedural justice presumably protects worker knowledge rights and it is therefore understandable that workers will be more willing to share their knowledge when they think the organization will respect their rights. The finding for distributive

justice is more difficult to understand, but we suspect that workers pay more attention to protecting the privacy of what they know when they believe that organization rewards will be dependent upon what they know as opposed to what others know. This is consistent with allocation (reward distribution) schemes based on the amount of contributions from individual workers (Leventhal 1980). If workers believe that the distribution of valued rewards should be based on the amount of contribution individual workers make, then our findings suggest that workers will be less inclined to share what they know. The ramifications of this finding are quite far-reaching. What it suggests is that in meritocracies where pay for performance is employed and where knowledge sharing is also valued, the firm must reward sharing behaviors as well as individual performance. Otherwise, workers will have an incentive to protect the privacy of their knowledge since they can use it to increase their personal gains.

Our results also indicated that continuance commitment is positively associated with job knowledge ownership. Continuance commitment refers to the perception workers have that continued employment in their jobs is preferable to finding new employment elsewhere. Our interpretation of this relationship is simply that when workers fear separation from the company they become protective of job knowledge property rights tied up in their current job so they will be considered important assets the organization will want to retain. The implication of this finding is that organizations should be mindful of the type of commitment (affective, normative, or continuance) their employees may possess. From the employer's perspective, continuance commitment may be the less desirable of the three types since it suggests individuals may leave the organization if another viable alternative presents itself. In this study individuals exhibiting continuance commitment were less willing to share their job knowledge. Thus, organizations that take steps to foster affective and normative commitment while minimizing continuance commitment within their organization may be more likely to reduce the deleterious effects of not sharing job knowledge.

We also found that the psychological contract breach measure is positively related to knowledge ownership. When workers believe that the organization has lived up to its obligations,

workers also appear to believe that they hold property rights in what they have learned from their jobs. From an applied perspective, this issue is growing in importance with the number of organizations that are involved in downsizing, mergers, or acquisitions. In these types of situations, individuals are more likely to perceive a violation of their psychological contract. These findings highlight the importance of organizations fulfilling their obligations, especially as their success in the market increasingly depends on the changing intellectual knowledge of their employees.

This study has some limitations. First, we only examined a limited number of antecedents of employee's knowledge sharing behaviors. However, there are some other variables that can play significant roles in the knowledge sharing process. One potential variable is trust, which may play significant mediating and/or moderating role in knowledge sharing process (Konovsky and Pugh 1994). For instance, the effects of justice and the psychological contract breach may be mediated by trust. Future research needs to investigate the role of other variables such as trust in employee's knowledge sharing behaviors. Second, we collected data from only one company. This method helps us control unexpected organizational variables, but limits the generality of conclusions we can make. Additional research in this area can only expand our understanding of the factors involved in knowledge sharing and enhance the generality of our results.

Despite the limitations, this study extends our understanding of knowledge sharing. This research can provide practical implications to managers. Especially in recent years, managers and organizations have displayed heightened interest in knowledge management, as knowledge becomes more important as a source of competitive advantage. This research clearly demonstrates that managers and organizations must pay attention to employee expectations and keep the promise they made to decrease employee's perception of psychological contract violation. Also, managers may need to provide realistic job previews before job candidates "sign" the employment contract, since unrealistic expectations can be a source of PCB. In addition, organizations are advised to devise and utilize fair and clear procedures (procedural justice) for protecting job knowledge

rights. Finally, organizations may need to distribute the rewards contingent on knowledge sharing behaviors as well as performance in order to motivate employee's knowledge sharing behaviors. This implies that organizations must create processes for monitoring sharing behaviors and rewarding them when they are observed.

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Appendix A

Items for Knowledge Ownership (Cronbach's alpha = .84)

1. I consider my ideas as basically my own property until I turn it over to my boss.
2. Ideas I come up with on my job are my own.
3. When all is said and done, I think my knowledge belongs to me until I share it.