Employee involvement, public service motivation, and perceived organizational performance: Testing a new model

Introduction

Employee involvement has been found to lead to superior organizational performance in both private and public sectors. In the private sector, employee involvement increases financial performance (Riordan, Vandenberg, & Richardson, 2005), firm productivity (Guthrie, 2001), service quality (Nielsen & Pedersen, 2003), and reduces employee turnover (Guthrie, 2001; Riordan et al., 2005). Using the data of 2006 Federal Human Capital Survey, Fernandez and Moldogaziev (2011) found that four practices of employee empowerment all exerted positive and statistically significant impact on perceived organizational performance. They further modeled the causal process by testing the mediating effect of job satisfaction and innovativeness (Fernandez & Moldogaziev, 2013). Using six rounds of federal employee surveys conducted from 1979 to 2002, Lee, Cayer and Lan (2006) consistently found that empowerment exerted positive influence over organizational effectiveness.

Despite the progress made regarding the effect of employee involvement on organizational performance, limited research has been conducted to explore the underlying mechanisms

(Fernandez & Moldogaziev, 2013). A key task in human resource management research is to move beyond counting best practices and to explore the processes that link practices to outcomes (Boxall & Macky, 2009). This paper takes on the task by testing a new model based on the theoretical framework of high-involvement work systems (HIWSs), which is a conceptual companion of high-performance work systems (HPWSs). The research on HIWSs and HPWSs attempts to find out the individual and organizational characteristics that affect the performance of organizations. Another objective of this research is to study how public service motivation influences the relationship between employee involvement and organizational performance, which has not been studied in public personnel research. Since public employees generally have stronger motivation to serve the public, how this motivation may complicate the theoretical framework of HIWSs derived from business management becomes a question worth studying. In addition, previous research on the effect of employee involvement on organizational performance was usually based on data collected from civil servants in the US. This paper extends the research by studying civil servants in China.

Theoretical framework

High-Involvement work system and organizational performance

High-involvement work system is a type of participatory initiative that involves employees in decision-making and management (Lawler, 1992). Some scholars argue that PIRK is a distinguishing feature of HIWSs: employees at all levels simultaneously have increased power (P), access to critical information (I), exposure to rewards (R) and organizational- and task-related knowledge (K) (Butts, Vandenberg, DeJoy, Schaffer, & Wilson, 2009; Lawler, 1992; Vandenberg, Richardson, & Eastman, 1999).

Scholars have proposed three major models to explore the mechanisms through which HIWSs produce effect on organizational performance. Some scholars drew on human capital theory and developed a cognitive model. They argued that HIWSs not only select and retain employees with high levels of knowledge but also foster the development of firm specific idiosyncratic skills. Firms can leverage the skills and knowledge, which gives them a competitive advantage and improves organizational performance (Guthrie, 2001). Another camp of scholars developed the motivational model, which argued that HIWSs empower employees and motivate them to work harder (Bowen & Ostroff, 2004). Motivated employees are more likely to act in the best interests of organizations. A third model was the relational model, which suggested that HIWSs change the internal social structure of

organizations, facilitate timely access to information, foster norms of reciprocity, and improve relationship coordination and communication between employees (Gittell, Seidner, & Wimbush, 2010). As a result, organizational performance improves.

The literature on HIWSs provides an overarching framework that directly links individual characteristics, such as their motivation, opportunities, and ability, to organizational performance (Boxall and Macky, 2009). High-involvement practices are likely to improve organizational performance through processes that occur at the individual level (Vandenberg et al., 1999). As we explore in the following sections, high-involvement practices first generate positive outcomes, such as higher level of organizational commitment and job satisfaction, at the individual level. However, current theoretical models, including those developed in both business and public management literature (Boxall & Macky, 2009; Fernandez & Moldogaziev, 2013; Vandenberg et al., 1999), usually do not have increased individual performance as a mediating step linking employee involvement and organizational performance. The assumption is that organizational performance benefits from the aggregation of more motivated and hard-working employees.

High involvement and employee morale

High level of involvement may increase employee morale measured by job satisfaction and organizational commitment. First of all, employee involvement increases employees' affective commitment to their organizations. Meyer and Allen (1991) distinguished three different components of commitment. One component is affective commitment, which is defined as "employees' emotional attachment to, identification with, and involvement in the organization" (Meyer & Allen, 1991, p. 67). High-involvement practices, such as participatory decision-making, increased power and access to information, may strengthen employees' beliefs that organizations value their contributions and thus increase their perceived organizational support (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001). Based on social exchange theory (Blau, 1964), employees seek a balance in the exchanges with their organizations. Therefore, employees who feel that they are supported by their organizations may develop affective attachment to their organizations and want to stay there.

It has long been argued that employee involvement satisfies their higher-order needs.

Involvement practices give employees access to key organizational information and include them in decision-making processes, which gives them more control over their work environments. Employees' work-related skills can be improved, and their self-actualization needs can be satisfied. Research has suggested that a more participatory environment gives

rise to higher employee satisfaction based on samples from the private sector (Miller & Monge, 1986; Riordan et al., 2005; Vandenberg et al., 1999). Wang and Yang (2015) studied employee involvement based on a sample of civil servants in Beijing, and they found that civil servants were more satisfied with their jobs even if their participation in management was informal and not institutionalized. Based on the above discussion, we propose that:

H1: Employee involvement practices are positively related to their affective commitment to their organizations.

H2: Employee involvement practices are positively related to their job satisfaction.

Employee morale and organizational performance

Job satisfaction has been found to be related to various work-related attitudes and behaviors. First of all, job satisfaction improves personal performance. The long-held belief is that happy workers are more productive. This argument is consistent with the human relations school of management, which believes that higher morale of workers will lead to improved productivity (Judge, 2001). Job satisfaction may also contribute to better organizational performance. Satisfied employees may perform better individually, and when combined together, organizational performance improves. Ostroff (1992) argued that the link between individual satisfaction and organizational performance may be stronger than the link between individual satisfaction and individual performance. Despite some inconsistencies, recent

empirical studies of pubic organizations generally supported a positive relationship between job satisfaction and organizational performance (Fernandez & Moldogaziev, 2013; Fernandez & Moldogaziev, 2011; Kim, 2005; Ritz, 2009).

An extensive literature in business and public management has found that affective organizational commitment is positively related to both individual and organizational performance (Jaramillo et al., 2005; Camilleri and Van Der Heijden, 2007; Kim, 2005; Ritz, 2009; Vandenabeele, 2009). Affective commitment may contribute to organizational performance in at least two ways: first, it helps employees to internalize organizational goals and values to a system of personal goals and values. Committed employees are more likely to work harder and engage in extra-role behaviors (Riketta, 2002); secondly, employee turnover can be reduced, which may save training costs and retain productive workers. Some research found that affective commitment was more important than continuance or normative commitments in reducing psychological stress and turnover (Somers, 2009).

Ostroff (1992, p. 965) nicely summarized that "employees who are satisfied, committed, and well-adjusted will be more willing to work toward organizational objectives and give their services wholeheartedly to the organization, hence promoting organizational effectiveness."

Therefore, we propose that:

H3: Job satisfaction is positively related to organizational performance.

H4: Affective commitment is positively related to organizational performance.

The above discussion is consistent with the motivational model of involvement. On the other hand, the cognitive model links employee involvement directly to organizational performance, which is closely tied to human capital theory. The idea is that front-line workers have more complete knowledge of their work than managers do. By involving workers in management, the knowledge can be utilized to make better decisions and to improve product quality and efficiency (Miller & Monge, 1986). Through participating in management and regularly communicating with colleagues, employees' problem-solving skills and job-related knowledge can be improved. The knowledge and skills are important human capital, which may give firms a competitive advantage that is hard to be imitated by others (Guthrie, Flood, Liu, & MacCurtain, 2009; Lepak & Snell, 1999). Some empirical studies and meta-analysis support that participation has positive and direct impacts on productivity (Guthrie, 2001; Guthrie et al., 2009; Miller & Monge, 1986).

H5: Employee involvement practices are positively and directly related to organizational performance.

Public service motivation and its attitudinal and behavioral consequences

The theory of high-involvement work systems originated from business management. When applying this framework to public management, we need to be aware of the differences in contexts and in motivation of public and private employees. As the motivational model suggests, involvement in management improves employees' job satisfaction and affective commitment, which then motivate employees to work harder and improve organizational performance. We may call this increase in performance the "morale effect". However, it has long been believed that the motivation of public employees is different from that of private employees (Perry & Wise, 1990). Public employees are more motivated by the intrinsic reward of work that is important and provides a feeling of accomplishment, and they are less motivated by extrinsic rewards (Naff &Crum, 1999). Public employees may already have a high level of job satisfaction and affective commitment because of their public service motivation (PSM). How the difference in this key variable may affect the established theoretical model derived from business management becomes a question worth studying. Specifically, starting with a relatively high level of job satisfaction and affective commitment, can involvement in management keep increasing employee morale? If yes, would increased morale lead to better organizational performance? Or, would the morale effect on performance decrease or even disappear as morale increases to a certain degree? To the best of our knowledge, few studies have incorporated PSM when examining the impacts of

employee involvement. In this research, we attempted to fill this gap by using PSM as an independent variable, which allowed us to control for its effect on job satisfaction, affective commitment and perceived organizational performance.

Public service motivation (PSM) has become an important topic in public personnel research since early 1990s. Perry and Wise (1990: 368) defined public service motivation as "an individual's predisposition to respond to motives grounded primarily or uniquely in public institutions and organization." The PSM – performance relationship is considered as the corner stone of PSM theory, which interests both scholars and practitioners. Perry and Wise (1990) argued that PSM is positively associated with civil servants' individual performance, which has been subsequently supported by a growing number of studies (Naff and Crum, 1999; Alonso and Lewis, 2001; Leisink and Steijn, 2009; Vandenabeele, 2009; Camilleri and Van Der Heijden, 2007). For instance, using the 1996 Merit Principles Survey data, scholars found that PSM was positively related to the performance ratings that civil servants got (Naff and Crum, 1999; Alonso and Lewis, 2001). On the other hand, some research examined the relationship between PSM and organizational performance. Brewer and Selden (2000) found that PSM exerted positive and statistically significant influence over organizational performance. Kim (2005) and Ritz (2009) reached similar conclusions with data collected in

Korea and Switzerland.

The current literature has examined attitudinal and behavioral consequences of PSM, such as organizational commitment, job satisfaction and performance. Job satisfaction has been found to be a consequence of PSM in public organizations. The reason is that public organizations can better satisfy the needs of public employees to participate in policymaking or serve public interests (Taylor, 2008). A number of empirical studies supported this theoretical argument across different institutional and cultural contexts (Moynihan and Pandey, 2007; Naff and Crum, 1999; Vandenabeele, 2009; Liu and Tang, 2011). For example, using a sample of 3,506 civil servants in Belgium, Vandenabeele (2009) used a five-dimensional instrument to measure PSM and found that four dimensions, including politics, public interest, self-sacrifice and democratic governance, exerted statistically significant influence over job satisfaction. Using samples of Chinese civil servants, Liu and Tang (2011) found that civil servants with higher PSM had higher job satisfaction.

Some research has examined the relationship between PSM and organizational commitment. With a few exceptions(Camilleri & Heijden, 2007; T. Kim, Henderson, & Eom, 2015), most empirical studies in the European and American contexts suggested that PSM leads to higher

affective commitment (Vandenabeele, 2009; Taylor, 2008; Moynihan and Pandey, 2007; Leisink and Steijn, 2009). Two reasons may explain this relationship: first, high PSM may lead civil servants to internalize the values and goals of their agencies and to develop identification and emotional attachment with their agencies; second, based on the literature on person–organization fit, since public organizations better satisfy the needs of individuals with high PSM, these people are more likely to work for the government (Perry and Wise, 1990), and they may be more committed to their agencies.

H6: Public service motivation is positively related to organizational performance.

H7: Public service motivation is positively related to job satisfaction.

H8: Public service motivation is positively related to affective commitment.

Based on the above theoretical discussion, we developed our theoretical model, which is shown in Figure 1. First of all, according to the motivational model, employee involvement may increase job satisfaction and affective commitment, which then positively affect organizational performance. Based on the cognitive model, employee involvement may also have a direct impact on organizational performance. Moreover, public service motivation also has direct impact on organizational performance as well as indirect effect mediated by job satisfaction and affective commitment.

[Insert Figure 1 about here]

Data, measure and methods

Data

We surveyed part-time MPA students at a major research university in Beijing to collect data in 2013. All these part-time MPA students were civil servants at different levels of governments, and they came from 21 of the 23 provinces in China. 805 questionnaires were distributed in class, and 711 questionnaires were returned, resulting in a response rate of 88%. In order to protect respondents' privacy and to reduce social desirability bias, we made it clear to respondents that the study was for academic research only, and all questionnaires were anonymous and could not be linked to individuals.

Measurement

Table 1 contains the survey items of the dependent variable and key independent variables. In the survey, respondents were asked to evaluate items on five-point scales with 1 representing strong disagreement and 5 representing strong agreement.

11 questions were used to assess six dimensions of perceived organizational performance.

This measure was based on Brewer and Selden's (2000) theoretical taxonomy, and was

slightly modified in order to fit the Chinese context. Brewer and Selden (2000) argued that measuring the performance of public organizations should consider three performance-related values: efficiency, effectiveness and fairness, and they further differentiated organizations' two focuses: internal and external performance (Brewer and Selden, 2000). Combining the three values and two focuses gives us six dimensions of organizational performance. The Cronbach's alpha based on our sample was 0.938, which showed excellent reliability. This measure is more comprehensive than simple efficiency-oriented measure, and has been used in other studies (Kim, 2005). One major assumption of the theoretical taxonomy is that organizational performance is socially constructed. Public organizations have diverse constituents and goals, and these goals may conflict with one another. Selecting one criterion over another is a value judgement. Of course, subjective measures bring a number of problems, such as memory loss and personal bias, but studies have supported its validity by showing that subjective measures are highly correlated with objective measures of organizational performance (Je'McCracken et al., 2001).

The measurement of involvement was based on the PIRK framework (Lawler, 1992) and included the following items: supervisors sharing information with subordinates, supervisors' respect of subordinates, providing performance evaluation feedback, involving employees in

decision-making, and equitable rewards in terms of pay. The Cronbach's alpha of these items was 0.908, showing an excellent reliability. This is a measure of perceived involvement.

Some may argue for using the number of involvement practices, but having these practices in rule books is not enough because it may not reflect the actual involvement of employees (Vandenberg et al., 1999). Employees' shared perceptions about involvement is a better indicator. The perceptions mediate the HR practices of involvement and employees' behavioral responses (Riordan et al., 2005). Unless employees perceive a good organizational climate for involvement, their behaviors may not change in the direction that leads to higher organizational performance.

PSM was measured by five questions in order to capture four dimensions: social justice, commitment to public interest, compassion, and self-sacrifice. Although instruments with 20 or more questions have developed and validated (J. L. Perry, 1996), they are often too long to be used due to space limits of questionnaires. This 5-item measure has been a widely-used abridged version of Perry's scale (Kim, 2005; Brewer & Selden 2000; Christensen & Wright, 2011).

The measure of affective commitment was developed by Meyer, Allen and Smith (1993) and

also used by Kim (2005). The three items mainly assessed the sense of belonging and affective attachment toward organizations. The Cronbach's alpha based on our sample was 0.857, which showed strong reliability. Job satisfaction was measured by two items that assessed whether jobs were intrinsically interesting and satisfactory. The Cronbach's alpha was 0.79, which was acceptable.

Control variables

In this research, we controlled for the effects of gender, tenure and administrative rank in our structural equation modeling. As previous research suggested (Brewer & Selden, 2000), these individual-level variables may also affect employees' public service motivation, organizational commitment, job satisfaction and perceived organizational performance. We did not include them in figures or tables for the sake of simplicity.

Methods

This paper employs structural equation modeling (SEM) as the major data analysis method.

5-point Likert scales were used in data collection. Tests of normality suggested that multivariate normality, which is a key distributional assumption of the default estimation method of maximum likelihood, was violated. Under this circumstance, we employed weighted least square as the method of estimation.

Measurement validation

The analysis was conducted by using LISREL 8.8. First, to test the reliability and validity of our model, we checked the Cronbach's alphas of all latent variables and found that they ranged from 0.79 to 0.938. Second, to check factorial validity, we tested the measurement model before running the full SEM model. The $\chi 2$ of the measurement model was 941.93 with a degree of freedom of 352. The χ 2 was large, but it was likely to be the effect of the large sample size. The $\chi 2$ /degree of freedom ratio was 2.67, which was well below the commonly used threshold of 5 and thus indicated good model fit. The RMSEA was 0.049, which was also below the stringent threshold of 0.06. Table 1 shows that standardized factor loadings ranged from 0.89 to 0.99, and all of them were statistically significant, thus providing evidence of convergent validity. We tested discriminant validity by using the Fornell and Larcker method. The key of this method is to compare the average variance extracted (AVE) of each latent variable with the shared variance between variables. "If the AVE for each construct is greater than its shared variance with any other construct, discriminant validity is supported." (Farrell, 2010, p. 325). Table 2 shows that the results met the conditions for discriminant validity. We thus accepted the measurement model.

[Insert Table 1 here]

[Insert Table 2 here]

Since data were collected with the same method, common method variance may be a potential threat to the validity of our findings. We checked common method variance in two ways. First, we used confirmatory factor analysis to test if a one factor model could fit the data well. This method is an improvement over the Harman's one-factor test because it actually gives us fit statistics. It has been used in other research (Mossholder, Kemery, Bennett, & Wesolowski, 1998). The result showed that the one factor model had a $\chi 2$ of 1976.08, and its RMSEA was 0.077, which suggested poor model fit. In addition, we used the common latent factor approach to let all observed variables load on the common latent factor and included the common latent factor in the measurement model. No significant changes in coefficients were found with and without the common latent factor. The results from the above tests suggested that common method variance may not be a major threat in this research.

Results

Descriptive Statistics

Among all the respondents, about 30% were females, and 70% were males. 6% of respondents worked for the government for less than five years, 14% of respondents worked for the government for five to ten years, and about 56% of respondents had job tenure of

more than 20 years. Long-time civil servants were overrepresented in this sample. In terms of the distribution of administrative ranks, 54.9% of respondents were at the rank of section chief, and 27% of respondents were at the rank of division chief. These are two lower to middle management positions in Chinese government. These civil servants enrolled in the part-time MPA program probably because they hoped the degree could help them get promoted.

Table 3 shows that the medians of five perceived measures were smaller than their means, suggesting that the distributions were right-skewed. On the 5-point scale with 1 representing the least favorable option and 5 representing the most favorable option, the means were all smaller than the midpoint of 3, showing that many employees did not have favorable evaluations of organizational performance, involvement, job satisfaction and other measures. For example, the mean of the 11 items measuring perceived performance was only 2.49. A detailed breakdown of the data showed that the 75th percentile was 3.18, suggesting that most people did not think their organizations performed very well. The mean of the items measuring employee involvement was only 2.47, and its median was only 2.20.

[Insert Table 1 here]

Figure 2 shows the conceptual model with standardized coefficients. Dashed lines represent paths that were not statistically significant. The $\chi 2$ for the integrated model was 1194.54, and the degree of freedom was 353. The $\chi 2$ /degrees of freedom ratio was 3.40, which was smaller than 5 and indicated an acceptable fit. The Root Mean Square Error of Approximation (RMSEA) was 0.058 (90% confidence interval: 0.054, 0.062), which was slightly smaller than the 0.06 cutoff point and showed good model fit. Both the Normed Fit Index (NFI) and Comparative Fit Index (CFI) were 0.99, indicating good fit too. The R-squared for organizational performance was 0.89, suggesting that the model could explain 89% of the total variance of perceived organizational performance. The R-squared for organizational commitment and job satisfaction were 0.92 and 0.71.

[Insert Figure 2 about here]

Table 4 shows the results of SEM analysis and hypothesis tests. As H1 and H2 postulated, employee involvement was positively related to organizational commitment (γ =0.61, t=8.96) and job satisfaction (γ =0.70, t=7.81). If employee involvement increases by one standard deviation, job satisfaction and organizational commitment increase by 0.70 and 0.61 standard deviation, holding other variables constant. In addition, employee involvement exerted direct and statistically significant influence over perceived organizational performance (γ =0.92,

t=6.25), so H5 was also supported. When employee involvement goes up by one standard deviation, perceived organizational performance increases by 0.92 standard deviation, holding other variables constant. Interestingly, neither job satisfaction nor organizational commitment had statistically significant effect on perceived organizational performance, so H3 and H4 were not supported. PSM exerted direct and statistically significant effect on perceived organizational performance (γ=0.18, t=2.28), so H6 was supported. If PSM increases by one standard deviation, perceived organizational performance goes up by 0.18 standard deviation, adjusting for the effects of other variables. H8 was also supported: PSM was positively related to organizational commitment (γ=0.37, t=5.75); however, its relationship with job satisfaction was not statistically significant, so H7 was not supported. The standardized coefficients showed that employee involvement had stronger effect on employee morale and perceived organizational performance than did PSM. To simplify the figure and table, we did not show the control variables. The results suggested that none of them had statistically significant effect on perceived organizational performance.

Discussion and conclusion

Based on the theoretical framework of high-involvement work systems, this paper explores whether employee involvement practices affect the performance of public organizations.

Theoretically, these practices, such as performance feedback, information sharing, and participation in decision-making, may enhance organizational performance. For example, performance feedback may give employees suggestions to correct errors and enable them to work more efficiently, which eventually benefits organizational performance (Fernandez & Moldogaziev, 2013). We also modeled two mechanisms through which employee involvement affects organizational performance based on the motivational model and the cognitive model.

Based on data collected from a sample of civil servants in China, our analysis supported the cognitive model of employee involvement, which suggested that involvement has positive and direct effect on perceived organizational performance. The finding is consistent with other studies in the public sector (Fernandez & Moldogaziev, 2013; Fernandez & Moldogaziev, 2011; Lee et al., 2006). However, the results did not support the motivational model. Employee involvement positively affects employee morale, but when controlling for the effects of involvement, PSM and other demographic factors, employee morale is not significantly related to perceived organizational performance. In other words, employee morale, measured by job satisfaction and organizational commitment, does not mediate the relationship between involvement and organizational performance. The finding is not

consistent with some studies (Fernandez & Moldogaziev, 2013; Vandenberg et al., 1999).

This research is unique in the integration of PSM in the theoretical model derived from the high-involvement work system literature. The results complicate our understanding of how PSM, employee involvement and organizational performance are associated with one another. Although this research did not support the motivational model of employee involvement, it does not necessarily mean that employee motivation is not important in improving the performance of public organizations. Public employees may have a different motivational path compared with their private sector counterparts. PSM was found to exert a direct and positive effect on perceived organizational performance, which is consistent with previous research in different institutional and cultural contexts (Brewer and Selden, 2000; Kim, 2005; Ritz, 2009). Therefore, it is not that motivation does not play a role in improving organizational performance but that public employees are primarily motivated by their unique motives to serve the public. Public employees may already have a higher level of job commitment and satisfaction, so involvement in management may keep improving their affective commitment to their organizations, but the performance enhancement effect may not be very obvious. Performance does not keep increasing with increased morale. Beyond a certain point of morale, performance increase is primarily driven by PSM and accumulated

human capital.

The findings supported the argument that employee involvement is positively associated with desirable attitudinal outcomes, such as job satisfaction and organizational commitment. The relationship between employee involvement and job satisfaction has been studied in different countries and a positive relationship has been found consistently (Boxall & Macky, 2014; Eisenberger et al., 2001; Fernandez & Moldogaziev, 2013; Wang & Yang, 2015). As these studies pointed out, involving employees in management satisfies their higher-order needs and gives them more control and ownership of their jobs. Employees may thus become more satisfied with their jobs. The positive relationship between involvement and affective commitment is theoretically sound, but empirical research has produced mixed results.

Theoretically, if employees feel that organizations value their participation, then they may become more committed to their organizations. This research and some studies support this relationship (Park & Rainey, 2007; Vandenberg et al., 1999).

Public service motivation was found to be an antecedent of affective commitment, which is consistent with most studies (Vandenabeele, 2009; Taylor, 2008; Moynihan and Pandey, 2007; Leisink and Steijn, 2009) but contradicts the studies conducted by Camilleri and his

colleagues in Malta (Camilleri and Van Der Heijden, 2007). Civil servants with high levels of PSM were more likely to be affectively committed to their organizations. Interestingly, when employee involvement and some demographic factors were controlled, PSM was found to have no statistically significant influence over job satisfaction, which is inconsistent with previous research both in the Chinese and Western contexts (Liu et al., 2008; Vandenabeele, 2009; Naff and Crum, 1999; Liu and Tang, 2011). It seems from this study that civil servants' job satisfaction comes mainly from participating in management rather than their motivation to serve the public.

Contributions and limitations

We would like to highlight several limitations of this research before talking about its contributions. The measurement of organizational performance was subjective, which may suffer from problems such as memory loss and personal bias, although perceived performance has some unique strengths and has been widely used. Another limitation is that respondents of this study had long job tenure and many of them were lower to middle managers in government. Although we tried to improve internal validity by using structural equation modeling, external validity may suffer due to the nature of this sample.

This paper makes several contributions to the current literature. It furthers the study on the causal process of employee involvement and organizational performance based on the literature of high-involvement work systems. In the public administration literature,

Fernandez and Moldogaziev (2013) pioneered the study of the mechanisms through which employee empowerment affects organizational performance. This paper tested a different causal process that linked employee involvement, employee morale measured by job satisfaction and affective commitment, and perceived organizational performance. Our findings did not support the motivational model identified in some studies but supported the cognitive model of employee involvement.

The second contribution is the integration of PSM in the model, which complicates our understanding of the motivation process related to involvement. PSM, which may be more prominent in explaining the behaviors of public employees, may confound the motivation process if it is not properly controlled. We found that PSM exerted positive and statistically significant effect on organizational performance. However, employee morale measured by job satisfaction and commitment did not have statistically significant impact on organizational performance once PSM was controlled.

The third contribution is the extension of previous research conducted in the West with a sample of Chinese civil servants. Most of the previous studies were based on samples from the US or other Western countries. Studying this relationship with a sample from a different cultural and institutional environment helps to test the robustness of the theory.

References

- Alonso P and Lewis GB. (2001) Public Service Motivation and Job Performance: Evidence from the Federal Sector. *The American Review of Public Administration* 31: 363-380.
- Blau, P. M. (1964). Exchange and Power in Social Life. New York, NY: Wiley.
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-Firm Performance Linkages: The Role of the "Strength" of the HRM System. *The Academy of Management Review*, 29(2), 203–221.
- Boxall, P., & Macky, K. (2009). Research and theory on high-performance work systems: progressing the high-involvement stream. *Human Resource Management Journal*, 19(1), 3–23.
- Boxall, P., & Macky, K. (2014). High-involvement work processes, work intensification and employee well-being. *Work, Employment & Society*, 28(6), 963–984.
- Brewer, G. A., & Selden, S. C. (2000). Why Elephants Gallop: Assessing and Predicting Organizational Performance in Federal Agencies. *Journal of Public Administration Research & Theory*, 10(4), 685.
- Butts, M. M., Vandenberg, R. J., DeJoy, D. M., Schaffer, B. S., & Wilson, M. G. (2009).

 Individual reactions to high involvement work processes: Investigating the role of

- empowerment and perceived organizational support. *Journal of Occupational Health*Psychology, 14(2), 122–
- Camilleri, E., & Heijden, B. I. J. M. V. D. (2007). Organizational Commitment, Public Service Motivation, and Performance Within the Public Sector. *Public Performance & Management Review*, 31(2), 241–274.
- Christensen, R. K., & Wright, B. E. (2011). The Effects of Public Service Motivation on Job Choice Decisions: Disentangling the Contributions of Person-Organization Fit and Person-Job Fit. *Journal of Public Administration Research & Theory*, 21(4), 723–743.
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001).

 Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42–51.
- Farrell, A. M. (2010). Insufficient discriminant validity: A comment on Bove, Pervan, Beatty, and Shiu (2009). *Journal of Business Research*, 63(3), 324–327.
- Fernandez, S., & Moldogaziev, T. (2011). Empowering Public Sector Employees to Improve Performance: Does It Work? *The American Review of Public Administration*, 41(1), 23–47.
- Fernandez, S., & Moldogaziev, T. (2013). Employee Empowerment, Employee Attitudes, and Performance: Testing a Causal Model. *Public Administration Review*, 73(3), 490–506.

- Gittell, J. H., Seidner, R., & Wimbush, J. (2010). A Relational Model of How High-Performance Work Systems Work. *Organization Science*, 21(2), 490–506.
- Guthrie, J. P. (2001). High-Involvement Work Practices, Turnover, and Productivity: Evidence from New Zealand. *The Academy of Management Journal*, 44(1), 180–190.
- Guthrie, J. P., Flood, P. C., Liu, W., & MacCurtain, S. (2009). High performance work systems in Ireland: human resource and organizational outcomes. *The International Journal of Human Resource Management*, 20(1), 112–125.
- Jaramillo F, Mulki JP and Marshall GW. (2005) A meta-analysis of the relationship between organizational commitment and salesperson job performance: 25 years of research. *Journal of Business Research* 58: 705-714.
- Je'McCracken M, McIlwain TF and Fottler MD. (2001) Measuring Organizational Performance in the Hospital Industry: An Exploratory Comparison of Objective and Subjective Methods. *Health Services Management Research* 14: 211-219.
- Judge TA, Thoresen CJ, Bono JE, et al. (2001) The Job Satisfaction–Job Performance Relationship: A Qualitative and Quantitative Review. *Psychological Bulletin* 127: 376.
- Kim, S. (2005). Individual-Level Factors and Organizational Performance in Government Organizations. *Journal of Public Administration Research and Theory*, 15(2), 245–

261.

- Kim, T., Henderson, A. C., & Eom, T. H. (2015). At the front line: examining the effects of perceived job significance, employee commitment, and job involvement on public service motivation. *International Review of Administrative Sciences*, 81(4), 713–733.
- Lawler, E. E. I. (1992). The ultimate advantage: creating the high-involvement organization.

 San Francisco, CA: Jossey-Bass.
- Lee, H., Cayer, N. J., & Lan, G. Z. (2006). Changing Federal Government Employee

 Attitudes Since the Civil Service Reform Act of 1978. Review of Public Personnel

 Administration, 26(1), 21–51.
- Lepak, D. P., & Snell, S. A. (1999). The Human Resource Architecture: Toward a Theory of Human Capital Allocation and Development. *The Academy of Management Review*, 24(1), 31–48.
- Leisink P and Steijn B. (2009) Public Service Motivation and Job Performance of Public Sector Employees in the Netherlands. *International Review of Administrative Sciences* 75: 35-52.
- Liu B, Tang N and Zhu X. (2008) Public service motivation and job satisfaction in China: An investigation of generalisability and instrumentality. *International Journal of Manpower* 29: 684-699.

- Liu, B.-C., & Tang, T. L.-P. (2011). Does the love of money moderate the relationship between public service motivation and job satisfaction? The case of Chinese professionals in the public sector. *Public Administration Review*, 71(5), 718–727.
- Meyer, J. P., & Allen, N. J. (1991). A Three-Component Conceptualization of Organizational Commitment. *Human Resource Management Review*, *1*(1), 61.
- Meyer, J. P., Allen, N. J., & Smith, C. A. (1993). Commitment to organizations and occupations: Extension and test of a three-component conceptualization. *Journal of Applied Psychology*, 78(4), 538–551.
- Miller, K. I., & Monge, P. R. (1986). PARTICIPATION, SATISFACTION, AND PRODUCTIVITY: A META-ANALYTIC REVIEW. *Academy of Management Journal*, 29(4), 727–753.
- Mossholder, K. W., Kemery, E. R., Bennett, N., & Wesolowski, M. A. (1998). Relationships between Bases of Power and Work Reactions: The Mediational Role of Procedural Justice. *Journal of Management*, 24(4), 533–552.
- Moynihan DP and Pandey SK. (2007) Finding Workable Levers Over Work Motivation:

 Comparing Job Satisfaction, Job Involvement, and Organizational Commitment.

 Administration & Society 39: 803-832.
- Naff KC and Crum J. (1999) Working for America: Does Public Service Motivation Make a

- Difference? Review of Public Personnel Administration 19: 5-16.
- Nielsen, J. F., & Pedersen, C. P. (2003). The consequences and limits of empowerment in financial services. *Scandinavian Journal of Management*, 19(1), 63–83.
- Ostroff, C. (1992). The relationship between satisfaction, attitudes, and performance: An organizational level analysis. *Journal of Applied Psychology*, 77(6), 963–974.
- Park, S. M., & Rainey, H. G. (2007). Antecedents, Mediators, and Consequences of Affective,

 Normative, and Continuance Commitment Empirical Tests of Commitment Effects in

 Federal Agencies. *Review of Public Personnel Administration*, 27(3), 197–226.
- Perry, J. L. (1996). Measuring Public Service Motivation: An Assessment of Construct Reliability and Validity. *Journal of Public Administration Research and Theory*, 6(1), 5–22.
- Perry JL and Wise LR. (1990) The Motivational Bases of Public Service. *Public Administration Review* 50: 367-373.
- Riketta, M. (2002). Attitudinal Organizational Commitment and Job Performance: A Meta-Analysis. *Journal of Organizational Behavior*, 23(3), 257–266.
- Riordan, C. M., Vandenberg, R. J., & Richardson, H. A. (2005). Employee involvement climate and organizational effectiveness. *Human Resource Management*, 44(4), 471–488.

- Ritz, A. (2009). Public service motivation and organizational performance in Swiss federal government. *International Review of Administrative Sciences*, 75(1), 53–78.
- Somers MJ. (2009) The Combined Influence of Affective, Continuance and Normative Commitment on Employee Withdrawal. *Journal of Vocational behavior* 74: 75-81.
- Taylor J. (2008) Organizational Influences, Public Service Motivation and Work Outcomes:

 An Australian Study. *International Public Management Journal* 11.
- Vandenabeele W. (2009) The Mediating Effect of Job Satisfaction and Organizational

 Commitment on Self-Reported Performance: More Robust Evidence of the

 PSM—Performance Relationship. *International Review of Administrative Sciences* 75:

 11-34.
- Vandenberg, R. J., Richardson, H. A., & Eastman, L. J. (1999). The impact of high involvement work processes on organizational effectiveness a second-order latent variable approach. *Group & Organization Management*, 24(3), 300–339.
- Wang, W., & Yang, X. (2015). Does Informal Participation Increase Job Satisfaction in Public Organizations? A Study on Civil Servants in Beijing, China. *Public Personnel Management*, 44(3), 356-374