

Does Servant Leadership Inspire Personnel's Innovation Performance: Performance Control as a Moderator

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Abstract

The positive effects of servant leadership to innovation performance have been proved by many studies around the world. On this base, this study introduces performance control levels as a moderator to test its effects on the relationship between servant leadership and personnel's innovation performance. 387 questionnaires are collected from personnel in different industries. According to data analysis, servant leadership has significant positive effect on personnel's innovation performance. Performance control moderates the strength servant leadership affecting personnel's innovation performance.

Keywords: servant leadership, performance control, personnel's innovation performance

1. Introduction

Innovation is one of the most popular words in China. President Xi proposed that the essence of "innovation driven" is "talent driven". As the source of innovation, personnel's innovation abilities receive more and more attention around the society. Lots of studies on the field have issued. Among these, there is an important perspective----finding out the situational aspects in which personnel's innovation abilities could be inspired.

Lots of situational aspects are proved relating to personnel's innovation, and leadership is commonly recognized as key aspect and force of pushing innovation. Recently, numerous of studies focus on the relationship between leader behaviors and personnel's innovation performances. Most of these pay attention to that how transformational leadership and transactional leadership effect personnel's innovation behaviors. Numbers of studies on servant leadership are limited. Even in those studies about servant leaderships, lots of them are located on public institutions such as government and universities. Relatively speaking, studies on servant leadership in enterprises are deficient.

Contrasting the long history of its concept, most studies of servant leadership are developed in the last decade around the world. Some positive conclusions are draw from those studies. Servant leadership could raise personnel's happiness (Chen et al., 2013), could improve personnel's mental health, (Rivkin et al., 2014), could boost personnel's performance (Sun, Wang et al., 2010), and could promote more Organizational Citizenship Behavior (Liden et al., 2008). It can also enhance personnel's affective commitment (VanDierendonck et al., 2014) and job satisfaction (Wang et al., 2009). A small number of these studies pay attention to the relationship between servant leadership and personnel's innovation abilities (Liden et al., 2014; Neubert et al., 2008). On these bases, the positive affection of servant leadership to personnel's innovation abilities is validated in Chinese situation (Lin et al., 2015).

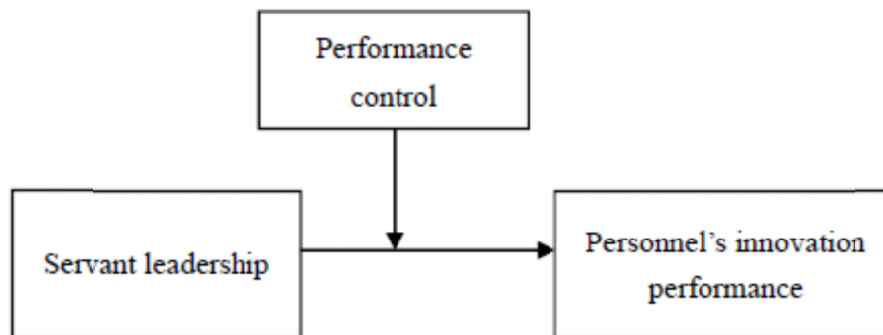
As mentioned above, although one of these studies mentioned the positive relationship between servant leadership and personnel's innovation abilities, this study chose work motivation and leader-member exchange as mediator and moderator respectively (Lin et al., 2015). Except these things, are there any other aspects which effect and adjust relationships between servant leadership and personnel's innovation abilities? This is one reason of this paper's writing. Moreover, Lin's study chose bank staff as samples. So the sample is limited. In my study, the sample includes various industries, thus the applicability of conclusions could be wider.

As mentioned above, servant leadership has adopted more and more wildly in not only public apartments but also enterprises. Especially in the environment that "encouraging people to start their own business and to make innovations", single personnel become an important innovation source in every enterprise. To encourage their innovation behaviors, the kind of environment serving and motivating personnel is more and more popular. Servant

leadership could exactly create this kind of environment and encourage personnel's innovation behaviors. It's very helpful for personnel because more innovation behaviors could be inspired when personnel feel their autonomy and subjective initiatives under servant leaderships.

Servant leadership takes effect as leaders' behavior in teams. The way and strength servant leadership improve personnel's innovation performance are influenced by management environment. From the perspective of the whole organization which teams belong to, the managerial styles could affect relationships between servant leadership and personnel's innovation performance. A democratic and loose managerial environment may enhance personnel's feeling of servant leaderships. Conversely, authoritarian and strict managerial environment may weaken those feelings. To evaluate the strength of managerial environment, this paper choose performance control as a mediating role.

As a result, a research model is designed as follows:



2. Theory Study and Hypothesis

2.1 Relationships between Servant Leadership and Personnel's Innovation Performance

Professor Greenleaf in MIT presented the concept of "servant leadership" in his book <The Servant as Leader> in 1970. Beyond personal interests and serving subordinates are defined as core characters of servant leadership. Then, Luthans (2002) presented that one of servant leadership characters is that it could create opportunities in organization, and it could also help personnel's growth. Reinke (2004) emphasized servant leadership characters of its acceptance on personnel's growth, organization survives and community responsibilities. Bowie (2000) stressed that the responsibilities of servant leadership are raising subordinates' autonomies and responsibilities, and encouraging their thought of themselves. All the above studies show differences between transformational leadership and servant leadership. The transformational leadership aims to organization goals, while servant leadership aims to personnel's demands. Serving subordinates is always core character of servant leadership.

Improving personnel's innovation abilities is a important part of their self development. Servant leadership care for personnel and help them in their growth (Liden et al., 2006). As a result, servant leadership has positive effect on improving personnel's innovation performance. So we present the first hypothesis:

H1: Servant leadership is positively related to personnel's innovation performance.

2.2 Performance Controls Moderate the Relationships between Servant Leadership and Personnel's Innovation Performance

Performance control is an active strategy which is used to deal with uncertainties of outside environment. The aim of performance control is to minimize the interferences from outside to organizational goals. At the same time, performance control could also transmit organization expectations to personnel and make personnel concentrate to organization goals (Murphy & Cleveland, 1995). Low level of performance control means a relaxed environment for personnel. In this circumstance, the higher the level of servant leadership, the more autonomy personnel could feel. The inspiration from servant leadership to personnel innovation performance should be stronger. On the other hand, high level of performance control means specific missions and rules. This kind of circumstance could firstly weaken promotions from servant leadership to personnel's innovation performance. But along with the higher level of

servant leadership, personnel could feel strong supporting from leaders and specific organizational missions and rules simultaneously. This environment is likely to that of objective management. Personnel's ownership and intrinsic motivation levels are highly promoted. Their innovation performance could also climb to a high level which is even higher than that in low performance control environment. From the above statement, we present the second hypothesis:

H2a: The positive relationship between servant leadership and personnel's innovation performance is moderated by performance control.

H2b: when servant leadership is low, personnel's innovation performance is lower in a low munificence environment than that in a high munificence environment. Along with servant leadership level's rising, in a high servant leadership level, personnel's innovation performance is higher in a low munificence environment than that in a high munificence environment.

3. Design and Methodology

3.1 Participants and Procedure

Considering about aims and variables of this study, we choose personnel from various enterprises as respondents. 450 questionnaires are sent to respondents from April to August in 2015. About 250 of respondents are from MBA and MPA courses in Shandong Normal University and Shandong University of Finance and Economics. About 200 respondents are from 19 enterprises in Jinan Innovation Park. At last, 378 valid questionnaires are collected. The effective response rate is 84%. Demographics of respondents are shown in table 1 following:

Table 1. Descriptive statistics and correlation matrix of full sample (N=387)

	Categories	ratios	Total
Gender	Male	61.2%	100%
	Female	38.8%	
Organization nature	Public institution	12.5%	100%
	Foreign/joint venture enterprise	38.1%	
	State owned enterprise	27.2%	
	Private enterprise	20.4%	
	Others	1.8%	
Education level	College and under	8.7%	100%
	University graduate	70.1%	
	Post graduate and above	21.2%	
Age	Under 24	8.3%	100%
	24-29	20.1%	
	30-34	42.2%	
	35-40	27.7%	
	40 and older	1.7%	

3.2 Variables

3.2.1 Servant Leadership

Servant leadership is measured by the scale presented by Ehrhart (2004). There is only one dimension in this scale to measure the strength of servant leadership. It includes 14 items to measure personnel's feelings about the servant leadership strength of their leaders. Considering about that the aim of this study is to find relationship between leaders' serving and supporting behaviors and personnel's innovation performance, we delete 3 items in the original scale which are about leaders' community responsibilities. So servant leadership is measured by means of 11-item

scale, for example: I feel working with my supervisor but not working for him. These items are answered by personnel using a 5-point scale (1=strongly in disagreement, 5=strongly in agreement). The Cronbach's α of this scale is 0.86.

3.2.2 Performance Control

The level of performance control in organization is measured by a 5-item scale. This scale is presented by Oldham and Hackman (1981) and used to measure personnel's objective feelings about rules, and how deep and wide self-determined working behaviors are interfered by rules. Illustration item of the scale is "A rules and procedures manual exists and is readily available within this organization". Items in this scale are answered by personnel using a 5-point scale (1=strongly in disagreement, 5=strongly in agreement). The Cronbach's α of this scale is 0.90.

3.2.3 Personnel Innovation Performance

Personnel innovation performance is measured by means of a 9-item scale which is designed by Janssen et al. (Searching out new working methods, techniques, or instruments). Personnel answer these items to scale their level of innovation performance objectively feeling by themselves. A Likert-5-point scale is used in which 1=strongly in disagreement and 5=strongly in agreement. The Cronhach's α of this scale is 0.88.

3.3 Common Method Bias

All the items in questionnaires are answered by personnel, and each respondent finishes questionnaire in one period of time. So there might be common method bias problems of the data. To avoid this bias, we adopt two approaches to test it. The first approach is Harman single factor test. If there is a strong common method bias, result of Confirmatory Factory Analysis (CFA) would show that single factor model could fit best. When we us CFA to test a single factor model from data collected, the result shows that data-fitting is very poor as $\chi^2=2052.12$, $df=127$, $CFI=0.88$, $TLI=0.86$, $RMSEA=0.20$. The second approach is Structural Equation Model (SEM). There are three variables in this study. Compare a normal 3-factor model with a 4-factor model in which potential common method bias is attended as a factor. The result shows that 4-factor model ($\chi^2=582.4$, $df=121$, $CFI=0.96$, $TLI=0.96$, $RMSEA=0.088$) fits just little bit better that 3-factor one ($\chi^2=639.8$, $df=126$, $CFI=0.95$, $TLI=0.95$, $RMSEA=0.094$). As a result, there is no strong common method bias of the data in this study.

3.4 Method

We use moderated regression analysis to test moderation effect in this study. There are two regression equations as below:

$$Y = \beta_{10} + \beta_{11}X + \beta_{12}M + \varepsilon_1 \quad (1)$$

$$Y = \beta_{20} + \beta_{21}X + \beta_{22}M + \beta_{23}X \cdot M + \varepsilon_2 \quad (2)$$

In these equations, X represents servant leadership, M represents performance control, and Y represents personnel's innovation performance. If β_{23} is significant, it means that there is an effective moderating effect of performance control to relationship between servant leadership and personnel's innovation performance.

4. Result

The correlations among the study variables are shown in Table 2.

Table 2. Descriptive statistics and correlation matrix of full sample (N=387)

	M	SD	1	2	3	4	5	6
1 Age	32.4	5.92	1					
2 Gender	--	--	0.10	1				
3 Education	1.12	0.21	-0.21*	-0.078	1			
4 Servant Leadership	2.79	0.61	0.12*	0.11*	0.23*	1		
5 Performance Control	3.36	0.52	0.06	0.24*	0.16	0.24	1	
6 Personnel Innovation Performance	3.47	0.58	0.04	-0.12	0.26	0.54*	-0.39*	1

* $p < 0.01$

We use spss21 as tool to analyze the above regression equations. The results are shown in Table 3 as follows:

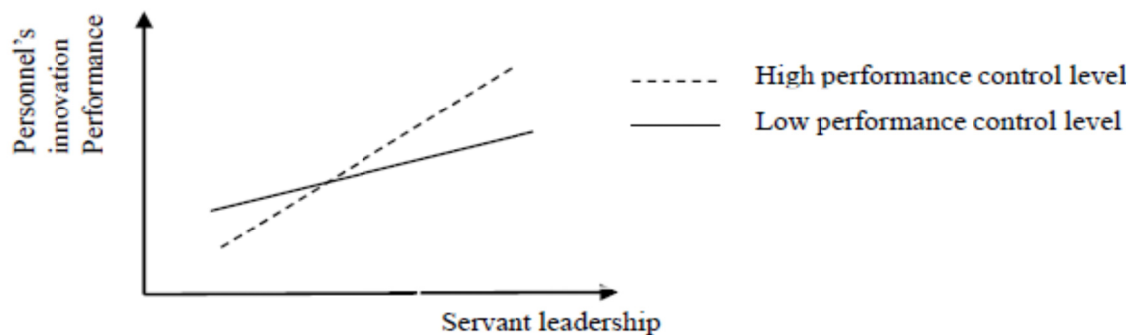
Table 3. Results of regression analysis

	Equation 1			Equation 2		
	B	SE	β	B	SE	β
Servant Leadership (X)	0.37	0.07	0.38**	0.31	0.08	0.27**
Performance Control (M)	-0.08	0.06	-0.06	0.16	0.09	0.13
X*M				0.32	0.15	0.24*

* $p < 0.05$, ** $p < 0.01$

From Equation 1, we can learn that servant leadership has a significant positive effect on personnel's innovation performance ($\beta = 0.38$, $p < 0.01$). H1 is supported. From Equation 2, the interaction term of servant leadership and performance control is significant ($\beta = 0.24$, $p < 0.05$). As a result, H2a is supported as well.

To test H2b and better understand the interaction effects of servant leadership and performance control, according to advises from Aiken and West (1991), we plot them like that in Figure 1. Two groups are formatted from the sample according to different level of performance control. One group is high performance control level (means of performance level plus 1 SD), the other group is low performance control level (means of performance level minus 1 SD). We use regression analysis to test the different moderating effect of performance control levels.



The results of regression test show that in high performance control level environment, there is a significant positive effect of servant leadership to personnel's innovation performance ($b = 0.33$, $t = 4.79$, $p < 0.05$). In low performance control level's environment, positive effect of servant leadership to personnel's innovation performance is also significant ($b = 0.16$, $t = 1.96$, $p < 0.05$). It means that when servant leadership level is low, low performance control level is helpful for personnel's innovation performance. With high level of servant leadership, strict performance control is conversely more helpful to improve personnel's innovation performance. As a result, H2b is supported as well.

5. Discussion

5.1 Contributions

Using questionnaires and data analysis, this paper tests the relationships between servant leadership and personnel's innovation performance. Performance control is drawn into this study as a moderator. According to the analysis, there is a significant positive effect of servant leadership to personnel's innovation performance. This conclusion consists with Liden's (Liden et al., 2014) and Neubert's (Neubert et al., 2008) conclusions. At the same time, it also agrees with Lin's (Lin et al., 2015) results in Chinese environment. Different from existing researches, this paper test the performance control's moderating effect between servant leadership and personnel's innovation performance. This finding perfects study field of servant leadership and explain part of mechanism of how servant leadership affect innovation performance.

5.2 Management Implications

Based on this study, the results can offer some useful guidance for enterprises to improve their personnel's innovation performance. Although most of studies on servant leadership show that it can improve enterprise's innovation, servant leadership is not suitable for all kinds of enterprises. According to this paper, the positive effect of servant leadership act different roles in different performance control environments. To gain innovation levels, enterprises should choose corresponding strategies according to their own characters.

In specific, from a static point of view, low performance control environment matches with low servant leadership. It is because that in a munificence environment, leaders should bear more responsibilities of monitor and control. High servant leadership levels may lead to lower innovation performance. On the other hand, in those enterprises which have much quite specific managerial rules and disciplines, personnel know what they should do according to the strict managerial environment. Leaders in this kind of organizations should serve but not control personnel to achieve their goals. Thus, high performance control environment matches with high servant leadership.

From a dynamic perspective, no matter what level of performance control is, moderately increasing on servant leadership level will improve personnel's innovation performance.

5.3 Limitation and Future Research Directions

Although we have tested in this study that common method bias didn't affect much on the data analysis, but there is still possibilities of common method bias's existing. In the future, different concepts in questionnaires should be collect in steps. Furthermore, considering about the differences between industries, the relationship and mechanism between servant leadership and personnel's innovation performance might be different from findings in this study. Especially in high-tech enterprises, how and how strong servant leadership effects personnel's innovation performance should be studied emphatically.

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