

MOTIVATIONAL EFFECT OF PERFORMANCE MANAGEMENT: DOES LEADERSHIP MATTER?*

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Abstract

Many have expected that performance management will enhance the motivation of public employees. However, studies have reported that the motivational effect was minimal. This study examines whether the motivational impact can be enhanced by exerting transformational and transactional leadership. The analysis of the 2013 Federal Employee Viewpoint Survey reveals that while transformational leadership has a positive main effect on motivation, transactional leadership did not do so. As for moderator analysis, it indicates that transactional leadership has a positive moderating effect on the relationship between performance management on motivation, while transformational leadership does not. These results indicate that leadership makes significant differences in the motivational effect of performance management and that transactional leadership and transformational leadership influence worker motivation in distinctive ways. Hence, managers need to strike a balance between exerting transformational and transactional leadership to motivate people effectively in the era of performance management.

Keywords: performance management, motivation, leadership, transformational, transactional, Federal Employee Viewpoint Survey.

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1. Introduction

Public administration scholars have not paid sufficient attention to the topic of leadership until recently. The relative dearth of studies focusing on leadership in the public sector (Van Wart, 2003) reflects the unique disciplinary tradition of the field. It is a classical tenet of public administration that the legitimacy of large public bureaucracies is sustained only when its members strictly adhere to legislative directives, bureaucratic procedures, and executive controls. This unique context of public organizations often culminates in greater formal and procedural constraints which hinder public manager's discretion necessary for exerting a strong leadership (Wilson, 1989; Perry and Rainey, 1988). Since this rigid formal structure in public organizations may substitute for the function of organizational leadership (Ker and Jermier, 1978), both practitioners and scholars have been relatively less interested in the topic of leadership in public organizations.

However, over the past few decades, we have witnessed a series of major paradigm shifts and administrative reforms that advocate for greater discretions of public managers and urge them to take on more active roles (Agranoff and McGuire, 2001; Kettl, 1997; Osborne and Gaebler, 1992). As a result, the agenda for public managers has become even more complex and comprehensive than ever before (Bryer, 2007). They are now expected to embrace an entrepreneurial spirit (Doig, 1990; Morris and Jones, 1999) and become central agents for organizational innovation (Borins, 2002; Parry and Proctor-Thomson, 2002) in order to achieve the missions and goals of public sector organizations better.

Consistent with this new trend, studies on the effect of leadership in the public sector have proliferated over the last decade (Trottier, Van Wart and Wang 2008; Park and Rainey, 2008; Fernandez, Cho and Perry, 2010; Paarlberg and Lavigna, 2010; Oberfield, 2012; Wright and Pandey 2010; Moynihan, Pandey and Wright, 2012; Vignoda-Gadot and Beerli 2012; Wright, Moynihan and Pandey, 2012; Bellé, 2014). The findings reported in these studies attest to the increasing importance of public sector leadership: leadership was found to influence diverse outcome variables, including public service motivation (Park and Rainey, 2008; Wright, Moynihan and Pandey, 2012), extrinsic motivation (Park and Rainey, 2008), follower satisfaction (Fernandez, 2008; Trottier, Van Wart and Wang, 2008), performance information use (Moynihan, Pandey and Wright, 2012), as well as performance at organizational (Fernandez, Cho and Perry, 2010) and individual level (Bellé, 2014).

Given that leadership affects such a variety of important outcomes of public sector organizations, one can easily extend such findings to argue that leadership effectiveness will be associated with the success and failure of performance management practice. Indeed, the importance of leadership in the era of new public management was highlighted by a number of scholars (Moynihan and Pandey, 2005; Moynihan, Pandey and Wright, 2012). However, with a very few exceptions (e.g., Gabris and Ihrke, 2000; Hennessey Jr., 1998), only a handful of studies attempted to provide either a cohesive

theoretical articulation of why leadership determines the effectiveness of performance management or an empirical evidence for such argument. This study aims to fill that gap in the literature. Drawing mainly on the socio-psychological perspective of leadership, this study investigates the moderating effect of leadership on the association between performance management and worker motivation.

2. Public employee's perceptions of the reform toward performance management

Despite the positive expectations based on the theory, many scholars have reported that the reform toward performance management has failed to achieve the motivational gains that it had promised (Bowman, 2010). This does not necessarily mean that the theory was inadequate. Rather, this is likely because of public employees' negative perceptions of the reform. Indeed, as Kellough, Nigro and Brewer (2010) stated, the reform encountered a furious resistance from the federal employee unions.

There are several reasons why public employees reacted to the performance-oriented personnel management reform in negative manners. Firstly, people have a natural tendency to avoid being monitored or evaluated by others (Brickman and Bulman, 1977; Jones and Gerard, 1967). Unlike the popular rhetoric, the reform toward performance management began not as an incentive that compensates for high performers; rather, it stems from the growing distrust toward government and public officials (Bowman, 2010; Kellough, Nigro and Brewer, 2010). Thus, federal officials are likely to view it as a theory X control mechanism (Roberts, 2003).

Secondly, the reform conflicts with other traditional bureaucratic requirements and management principles because it has spread out in the form of institutional isomorphism (Roy and Seguin, 2000) without thinking much about its implementation (Moynihan, 2008). For instance, as Radin (2000) noted, while increasing discretion is necessary for successful performance management, it is incompatible with the ethos of separated power of the U.S. government. Indeed, researchers have documented how the performance management reform resulted in the discrepancy between formal policies and informal practices (Moynihan, 2008). Such incompatibility may engender cynicism toward the reform (Wanous, Reichers and Austin, 2000; Chiaburu *et al.*, 2013).

Thirdly, the inherent goal ambiguity of public organizations makes it hard for employees to set a clear expectation of whether their efforts will pay off. It is difficult for many federal agencies to develop such objective performance indicators (Chun and Rainey, 2005). In the absence of objective indicators, performance evaluations are often based on arbitrary judgment or illegitimate criteria (Pearce and Perry, 1983). As a result, the execution of performance management only increases public employees' stress level (Choi and Whitford, 2017; Gabris and Ihrke, 2001), political behavior (Longenecker, Sims and Gioia, 1987) or gaming behavior (Van Thiel and Leeuw, 2002).

3. Bass's model of leadership

Leadership is probably the single most salient factor affecting employees' perceptions in the workplaces. Hence, this study presumes that the leadership of public managers can make differences in motivational effects of performance management by reshaping the above-listed negative perceptions prevalent among public employees. Bass's model leadership (1985) contains some of the most frequently cited leadership styles: transactional and transformational leadership. Based on extensive research, Bass categorized leadership styles into three types, namely, laissez-faire, transactional, and transformational leadership such that combining them constitutes a 'full range' of leadership (Oberfield, 2012). According to Bass, laissez-faire is the least effective, transactional leadership is more effective than that, and transformational leadership is the most effective style that enables organizations to achieve 'performance beyond expectations'. However, transactional and transformational leadership work through distinctive mechanisms of influencing workers' attitudes and motivations, and hence, have their own advantages under certain conditions. Therefore, this study also postulates that transactional and transformational leadership enhance the motivational effects of performance management in distinct ways.

3.1. Transactional leadership

Transactional leadership is predicated on the proposition that leader-follower relationship is defined as an exchange relationship in which leaders provide rewards in exchange of followers' carrying out of good works. Today's scholars tend to view transactional leadership as less effective than the transformational one. This is because transactional leadership is considered to be a somewhat passive leadership style compared to the transformational counterpart. However, the behavior of rewarding those with achievement and sanctioning those with low performance can bear the consequence of providing clear signals or expectation regarding what roles and achievements are to be rewarded. Indeed, this consequences of transactional leadership are emphasized by numerous scholars (Bass, 1985; Jung and Avolio, 2000) and lead to follower's commitment, satisfaction and performance (Bycio, Hackett and Allen, 1995; Hunt and Schuler, 1976; Podsakoff *et al.*, 1984).

Transactional leadership can enhance the motivational effect of performance management because role clarity is greatly emphasized in the context of performance management in the public sector. As discussed previously, the lack of clear, unambiguous and objective performance indicators is one of the most frequently cited obstacles to successful performance management (Bonhet and Eaton, 2003; Murnane and Cohen, 1986; Kellough and Lu, 1993). In the absence of clear performance indicators, public employees will lose a sense of direction such and will face greater uncertainty as to what roles they have to perform to be recognized and rewarded. However, if managers perform the function of clarifying the roles and goals for their employees by exhibiting transactional leadership behaviors, then the negative effect of uncertainty

will be mitigated and the leaders will be able to ensure the success of performance management.

Hypothesis 1: The association between performance management and employee motivation will be stronger when their leaders exhibit transactional leadership behaviors.

3.2. Transformational leadership

Transformational leadership can work as a moderator enhancing the motivational effect of executing performance management policies for several reasons that follow. Firstly, transformational leadership leads their subordinates to think positively about the practice of performance management. One of the essential components of transformational leadership involves intellectual stimulation, which refers to the quality of leadership that stimulates subordinates to think about given situations and problems in new and different ways. This quality of transformational leadership will foster positive attitudes in the midst of a negative atmosphere. Eisenbach, Watson and Pillai (1999) found that transformational leadership increases employees' motivation for organizational change where most members are stressed out due to the change intervention. Likewise, employees under the influence of transformational leadership will be able to perceive the positive sides of the performance management practice prominently, namely, as an opportunity for maximizing their rewards and recognitions.

Secondly, transformational leadership can mitigate the employees' work stress elevated by the practices of performance management. Performance evaluations may increase employees' psychological strains because they engender the fear of being appraised as a low performer (Choi and Whitford, 2017; Gabris and Ihrke, 2001). A number of studies have reported strong associations between transformational leadership style and lower levels of work-related stress (Sosik and Godshalk, 2000) and burnout (Seltzer, Numerof and Bass, 1989; Corrigan *et al.*, 2002; Hetland, Sandal and Johnsen, 2007). Transformational leadership will mitigate the motivational loss due to the elevated level of stress experienced by employees under the performance management regime.

Thirdly, transformational leaders enhance the motivational effect of performance management by increasing self-efficacy of their employees. Turner, Barling and Zacharatos (2002) and Nielsen *et al.* (2009) found that transformational leadership increases subordinate's sense of self-efficacy. As such, transformational leadership can elevate employees' subjective probability so that they can achieve better performance (i.e., expectancy), thereby increasing the possibility that the performance enhances subordinate's work motivation.

Hypothesis 3: The association between performance management and employee motivation will be stronger when their leaders exhibit transformational leadership behaviors.

4. Methods

4.1. Data and Sample

The Office of Personnel Management (USA) conducts the survey annually to the entire federal workforce to examine the attitudes and their perception of the organizational conditions since 2002. This study utilized the data obtained from the 2013 Federal Employee Viewpoint Survey (FEVS). The total of 781,280 federal employees were invited to fill in the survey, and 376,577 respondents returned the survey, which yielded a response rate of 48.2%. Among the total respondents, the author selected only those respondents who completed all the questions used in this study. So, the final sample size is 274,444. To examine briefly the characteristics of the respondents, 39.3% works in headquarters, and 60.6% in field units. As for supervisory status, 66.2% of the respondents were non-supervisors, while 13.5% were team-leaders, 12.6% supervisors, 6% managers, and 1.5% executives. 41.6% of the respondents were the pay grades of GS 7-12, while 38.9% were GS 13-15, 6.4% GS 1-6, and 7.6% others. For gender, 51.5% were male and 48.5% female. All the questions of the survey except for demographic control variables were measured using the Likert five-point scale. The statements were given on which the respondents were asked to indicate the degree to which they agree by choosing one of the following five options: 5 point for 'strongly agree', 4 for 'agree', 3 for 'neither agree nor disagree', 2 for 'disagree', and 1 for 'strongly disagree'.

4.2. Measures

According to Fernandez *et al.* (2015), since research utilizing the FEVS data is based on reinterpretation and reorganization of the questionnaire items, item selection must be based on a thorough discussion of the theoretical bases on which the measurements are constructed. Hence, to construct the measurements for this study, the author attempted to follow the previous studies, if available, which used the same or similar concepts to the FEVS. And if some items needed modification, the authors did so based on the theoretical discussion.

The dependent variable for this study is the degree to which employees are motivated at work. While motivation is a broad and complex concept, the textbook on organizational behavior typically defines the concept of motivation as 'the set of processes that arouse, direct, and maintain human behavior toward attaining some goal' (Greenberg and Baron, 1995, p. 126). Based on this definition, the author selected two questionnaire items capturing the degree to which the respondent tries to attain organizational goals. The independent variable is the degree to which the policies of performance-based HR management are practiced in the work units and the organizations. The core of performance-based HRM lies in the use of performance information as criteria for personnel decisions, such as regarding promotion, pay raise, and awards. Thus, this study attempted to measure the extent to which respondents believe that organizational rewards such as pay, promotion, and awards are determined by performance ratings.

The first moderator variable is transactional leadership. The author employed the measurement used by Oberfield (2012) with modification. The second moderator variable is transformational leadership. For this variable, the author used the four questions used by Oberfield (2012).

Attitudinal variables such as satisfaction, commitment and motivation are known to be affected by demographic characteristics (Brush, Moch and Pooyan, 1987; Bashir *et al.*, 2011; Wong, Siu and Tsang, 1999; Cano and Castillo, 2004). These demographic characteristics are supervisory status, gender, minority status, age, pay grade, and tenure. In order to control these unexpected effects, a number of demographic variables are included in the model. For gender and supervisory status, binary variables were used: 1 for female and 0 for male; 1 for supervisor and 0 for non-supervisor. Age, tenure, and pay grade were measured as ordinal variables: 1 for under 40, 2 for 40-49, 3 for 50-59, and 4 for over 60; 1 for under 5 years, 2 for 6-14 years, and 3 for over 15 years; 1 for GS7-12, 2 for GS 13-15, and 3 for others. Table 1 summarizes the measurements in this study and reliability scores for each variable.

Intrinsic motivation, the extent to which employees enjoy doing their works, is also included as a control variable. Satisfaction about the intrinsic reward is the most important and fundamental driver of human actions. Also, organizational performance should also be included because the performance level of work units or organizations generally determines what type of leadership managers are oriented towards. In addition, workers in high performing work units should be motivated to a greater degree than those in the low-performing units (Porter and Lawler, 1968). Measures and their reliability scores are summarized in Table 1.

Table 1: Survey items

Variable	Questions	Reliability
Work Effort	I am constantly looking for ways to do my job better.	.775
	When needed I am willing to put in extra effort to get a job done.	
Performance Management	Promotions in my work unit are based on merit.	.836
	Awards in my work unit depend on how well employees perform their jobs.	
	Pay raises depend on how well employees perform their jobs.	
Transformational Leadership	My organization's leaders maintain high standards of honesty and integrity.	.882
	In my organization, leaders generate high levels of motivation and commitment in the workforce.	
	Employees have a feeling of personal empowerment with regard to work processes.	
	I feel encouraged to come up with new and better ways of doing things.	
Transactional Leadership	In my work units, steps are taken to deal with a poor performer who cannot or will not improve.	.850
	Employees are recognized for providing high quality products and services.	
	In my work units, differences in performance are recognized in a meaningful way.	
	Managers communicate the goals and priorities of the organizations.	
Intrinsic Motivation	I like the kind of work I do.	
Organizational Performance	How would you rate the overall quality of work done by your work unit?	N/A

4.2. Variable creation and analytic strategy

For the moderating effect analysis, this study used the methods suggested by Aiken and West (1991). Firstly, the moderator variables were divided into three groups: high, medium, and low. The dividing points are the mean minus one standard deviation (low-medium), and the mean plus one standard deviation (medium-high). Second, all the variables were transformed into z-scores to center the variables. Thirdly, three regression lines were separately presented according to the three levels of the moderating variable (low-medium-high).

5. Results

5.1. Preliminary analysis

The data for this study was collected from a single survey. When the data measuring both dependent and explanatory variables are obtained from the same persons, the respondent's psychological tendency to maintain a consistent tone in answering the questions will result in the inflation on the association between dependent and explanatory variable. One of the most popular resolutions to this issue is to examine the construct validity (Conway and Lance, 2010) by utilizing the Confirmatory Factor Analysis (CFA) (Podsakoff *et al.*, 2003). In CFA, the fit indices for the proposed measurement model are compared against the hypothetical one-factor model. If the one-factor model fits the data better, one would say the common source bias is severe.

The result of CFA reveals that the proposed four-factor model (one dependent variable and three independent variables) fits the data better than the one-factor model. The fit indices for the four-factor model were mostly satisfactory (CMIN/df=2630.019, SRMR=.403, GFI=.914, NFI=.931, RFI=.914, CFI=.935, RMSEA=.098), while none of the fit indices for the hypothesized single factor model passed the cutoff values (CMIN/df=5623.917, SRMR=.0739, GFI=.806, NFI=.846, RFI=.816, CFI=.816, RMSEA=.143). Thus, there was no sufficient reason to believe that a single factor (i.e., the respondents' tendency to maintain consistent tone across answering different questions) explains most of the variables used in this study.

Table 2 presents the descriptive statistics of and correlation matrix among the variables in this study. While most of the correlation coefficients were not problematic, some coefficients indicated high correlations between independent variables (i.e., over 0.7). Significantly high pairwise correlation between independent variables may indicate that the model suffers the problem of multicollinearity, which violates the assumption of regression analysis and possibly renders the significance score biased (Studenmund, 2005). However, simply examining the correlation coefficients does not tell you whether multicollinearity is severe enough to require statistical treatment. In order to probe this issue, the author examined the Variance Inflation Factor (VIF). The results indicate that the VIFs for the study variables ranged from 1.030 to 4.842. Studenmund (2005) suggested five as the cutoff value indicating the severity of multicollinearity. Thus, it is concluded that the problem of multicollinearity in this model is not so severe to invalidate the results.

Table 2: Descriptive statistics and correlation matrix

	Mean	Std. Dev.	Work Effort	Supervisor	Gender	Minority	Age	Pay Grade	Tenure	Performance Management	Transactional Leadership
Work Effort	4.46	0.63									
Supervisor	0.23	0.41	.099**								
Female	0.47	0.50	.037**	-.088**							
Minority	0.34	0.47	.017**	-.054**	.120**						
Age	2.42	0.97	-.002	.106**	-.042**	-.053**					
Pay Grade	1.49	0.50	.056**	.282**	-.121**	-.095**	.099**				
Tenure	2.23	0.79	-.045**	.194**	.073**	-.005*	.450**	.170**			
Performance Management	2.79	1.05	.252**	.160**	-.012**	.024**	.037**	.112**	.010**		
Transactional Leadership	3.10	0.97	.291**	.187**	-.025**	.025**	.076**	.090**	.035**	.830**	
Transformational Leadership	3.27	1.03	.352**	.135**	-.014**	.007**	.048**	.071**	-.014**	.728**	.820**

* $p < .05$, ** $p < .01$

5.2. Regression analysis

Table 3 presents the result of the regression analysis. First of all, the model indices show that the proposed model explains a statistically significant portion of the variance in the dependent variable ($R^2 = .135$, $F = 2787.324$, $p = .000$). To examine the effects of individual variables, firstly, all the control variables significantly influenced motivation except for the respondent's age. Among these, the direction of the effect was negative for tenure, indicating that those who served the organization longer were less motivated than relatively new employees.

Secondly, the main effect of performance management was negatively significant, but the magnitude of the negative effect was not very strong: the change in the degree of performance management by 1 standard deviation yields only a 0.038 standard deviation decrease in motivation. Both types of leadership styles significantly increased worker motivation, but the degree of such effect was much greater for transformational leadership (.355 vs. .025).

Thirdly, the moderator effects were all significantly positive for both transactional and transformational leadership. However, the magnitude of the impact was much greater for transactional leadership than transformational leadership (.064 vs. .009).

Table 3: OLS regression on worker motivation

		Standardized Coefficient (Std. Err.)	Variance Inflation Factor (VIF)
Control Variables	Supervisory Status	.055*** (.003)	1.125
	Gender	.043*** (.002)	1.040
	Education	.028*** (.001)	1.053
	Tenure	-.051*** (.002)	1.298
	Age	-.021*** (.001)	1.250
	Minority	.011*** (.002)	1.029
	Intrinsic Motivation	.389*** (.001)	1.277
	Organizational Performance	.097*** (.002)	1.540
Main Effects	Performance Management	-.043*** (.002)	3.620
	Transactional Leadership	.004 (.002)	5.378
	Transformational Leadership	.176*** (.002)	3.540
Moderator Effects	Performance Management *Transactional Leadership	.053*** (.002)	3.981
	Performance Management *Transformational Leadership	-.006* (.002)	4.041
Model Fit	R-squared		.285
	F		8219.624***

*p<.10, **p<.05, ***p<.01

5.3. Moderator analysis

The significant moderator effect was further examined by plotting graphs for different values of the variables, using the method suggested by Aiken and West (1991). Figures 1 and 2 exhibit the different regression lines for the moderator of transactional leadership and transformational leadership. For the moderator effect of transactional leadership (Figure 1), the regression coefficients for each line were .013 (high), -.024 (medium), and -.061 (low), respectively. For the moderator effect of transformational leadership (Figure 2), the regression coefficients for each line were -.019 (high), -.024 (medium), and -.029 (low), respectively.

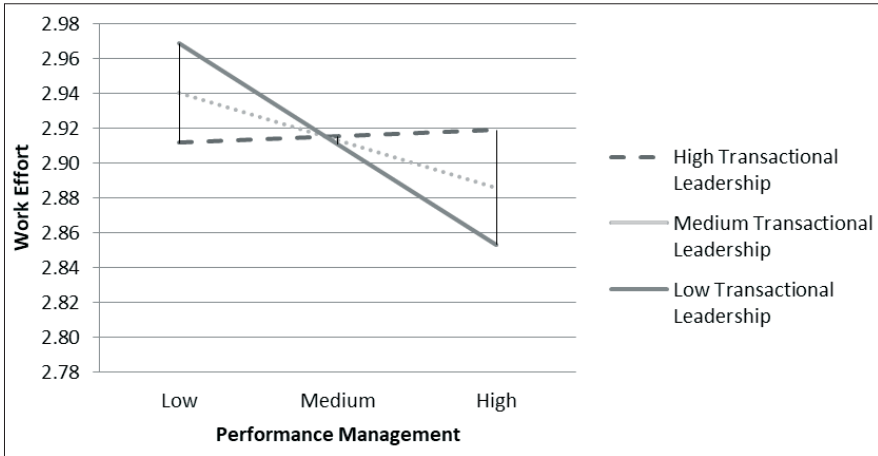


Figure 1: Moderating effect of transactional leadership

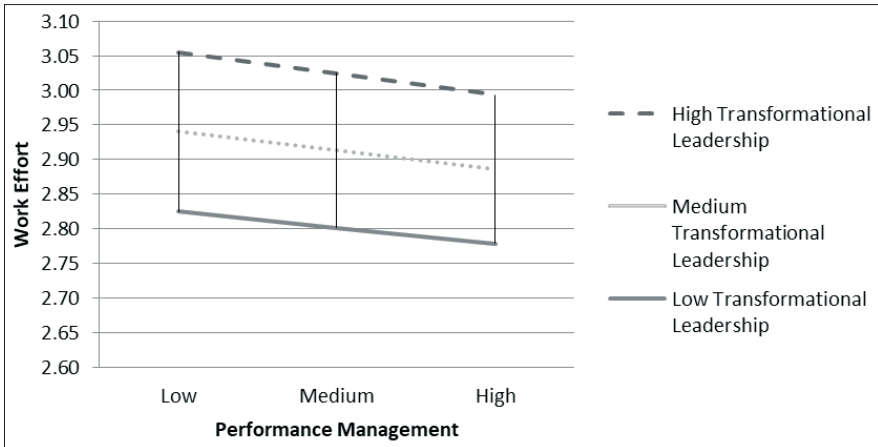


Figure 2: Moderating effect of transformational leadership

6. Discussion

This study investigated how the two styles of leadership moderate the relationship between performance management and worker motivation. Some noteworthy findings are summarized in the following. To summarize them briefly, firstly, the main effect of performance management on motivation was significantly negative, although the magnitude of such impact was minimal. Secondly, the main effect of transformational leadership on motivation was far greater than that of transactional leadership. Thirdly, the moderating effect of transactional leadership was even stronger than that of transformational leadership.

6.1. Theoretical implications

The discussion of theoretical implications from the findings is the following. Firstly, the negative main effect of performance management implies that performance management hampered the motivation of employees rather than boosted it. However, the magnitude of such negative effect was minimal, reflected in the relatively small size of the regression coefficient. In addition, since the sample size of this study is extremely large, the statistical significance of the coefficient (t-score) may have been inflated (Cohen, 1992). Given all these factors, it may be somewhat premature to conclude that the practice of performance management actually had a negative effect on the federal employee's motivation. At least, however, it is hard to conclude that the practice of performance management has a considerable positive effect on motivation. This may imply that even if there exist some degree of motivational gains of performance management, it may have been canceled off by the aftermaths of the negative perception towards the practice, as discussed in the previous chapter.

Secondly, as shown in Figure 2, there were no noticeable differences in the slopes of the regression lines between high and low transformational leadership. On the contrary, the extent of transactional leadership significantly amplified the positive effect of performance management on motivation. The magnitude, as well as the direction of the coefficients, changed depending on the value of transactional leadership. Figure 1 shows that the practice of performance management was positive only when supervisors exhibit active transactional leadership behaviors, whereas, the effect becomes negative when they do not.

The moderating effect of transformational leadership was hypothesized based on the prediction that it stimulates employees to focus on the prospect for greater rewards, alleviates the psychological strains caused by performance appraisal, or makes them more confident about the possibility of meeting performance criteria. Thus, the insignificant moderating effect indicates that transformational leadership does not necessarily have such effects. This may happen because the motivational mechanism of transformational leadership involves appealing to employees' virtuous moral values (Paarlbert and Lavigna, 2010), while increasing the prospect for rewards, alleviating stress, and increasing self-efficacy are largely associated with stimulating their aspiration for tangible benefits. Such incompatibility in the motivational basis may be the reason why transformational leadership has an insignificant moderating effect on the relationship between performance management and motivation. On the contrary, the central assumption of transactional leadership is that the relationship between leaders and followers is basically social exchange relationship. Hence, this mechanism of transactional leadership is much more suitable for increasing the motivational effect of performance management.

However, it is important to note that the finding of this study should not be interpreted as negating the importance of transformational leadership for the effectiveness of performance management in general. Exerting transformational leadership may be conducive to effective performance management for many reasons. For example, trans-

formational leadership ‘sets the table’ for using performance information indirectly via enhancing goal clarity and cultivating relevant organizational culture (Moynihan, Pandey and Wright, 2012). However, the finding of this study indicates that, despite the importance of transformational leadership for ‘setting the table’, it does not particularly help amplify the motivational effect of executing performance-based human resource management.

While many studies in the public sector tend to emphasize transformational leadership rather than transactional leadership (e.g., Paarlbert and Lavigna, 2010), this study showed that when it comes to the practice of performance management, the moderating effect of transactional leadership overweighs that of transformational leadership. This finding may seem to run contrary to prior studies. However, in fact, this finding does not contradict those of prior studies. Rather, it complements the previous ones. The significant and stronger main effect of transformational leadership on motivation attests to the importance of transformational leadership for those who are motivated by public service values. Also, the significant and stronger moderator effect of transactional leadership indicates that transactional leadership should be exerted especially for those who are motivated by tangible rewards. In essence, just as the work of Vecchio, Justin and Pearce (2008) did, this study sheds light on the distinctive and independent value of transactional leadership that has often been less appreciated than it should be, identifying the distinctive context in which transactional leadership plays a significant role: it amplifies the motivational effect of performance management.

6.2. Practical implications

Paarlberg and Lavigna (2010) convincingly argued that transformational leadership is effective in fostering public service motivation (PSM) as well as in managing people with high PSM. To the contrary, this study shows that transactional leadership is a more suitable leadership style when it comes to the benefit of performance management. Thus, transactional leadership should be treated at least as equally important for managers of public organizations, to the extent that performance management remains a popular HR practice in public organizations. This is especially the case given that although the PSM theory explains a unique motive structure of public employees, the degree to which public employees are intrinsically motivated by public values varies by individuals: there are many public employees attracted also by extrinsic rewards.

In essence, public managers need not only to inspire employees by infusing virtuous values but also to focus on frequent communication with subordinates to clarify their roles and standard expectations, to maximize the motivational gain of performance management. Although it is desirable to exert a more holistic and balanced leadership emphasizing both transformational and transactional leadership, a manager can practice an ‘employee-contingent leadership’. In other words, for high PSM individuals, managers need to exert transformational leadership; for individuals mainly motivated by extrinsic rewards, they need to exhibit transactional leadership behaviors. In addi-

tion, one can focus on either of the two leadership styles based on the characteristics of their organizations, because employees in some type of public organizations are motivated more by public values than those in other types of organizations. For example, those in traditional law-enforcing agencies, such as FBI, are more likely to be motivated by the service to the public, than those public organizations characterized by stronger entrepreneurial culture, such as NASA. In NASA, employees are more likely to be motivated by extrinsic rewards. Accordingly, transformational leadership may be more important for the managers in the FBI, while transactional leadership is more important for managers in NASA.

7. Limitation and future research

This study has certain limitations that future researchers may have to address. Firstly, this study used a single-dimensional construct of transformational and transactional leadership due to the limitation on the data availability: this study had no other questions than only one per each component. Hence, it did not provide a more detailed analysis of the moderating effects of each component of transformational and transactional leadership separately. Future researchers may need to investigate these separate moderator effects by collecting primary data. Secondly, this study uses a cross-sectional, 'snapshot', data. Thus, some may view that the causality among the dependent variable and independent variables were not rigorously tested. To address this issue, future researchers might have to consider using longitudinal research design in pursuing similar research agenda.

Thirdly, this study found that transformational leadership did not moderate the effect of performance management on worker motivation. However, the moderating roles of transformational leadership have been found to have a significant moderating effect in a variety of contexts (e.g., Wang and Walumbwa, 2007). Future researchers might be interested in examining the moderating roles of transformational leadership, which this study failed to observe, in other contexts. One possible example might be to examine the moderating effect of transformational leadership on the effect of PSM on work effort.

This research suggested that dual leadership – including both transactional and transformational leadership – is necessary. However, this begs the question, under what condition transactional leadership is effective, and under what condition transformational leadership is effective? To answer this question, future researchers need to examine how these factors, for example, the degree of PSM of employees, influence the relative importance of each type of leadership.

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