

# REVISITING CROWDING-OUT EFFECT OF PERFORMANCE MANAGEMENT: ITS IMPACT ON EXTRINSIC AND INTRINSIC MOTIVATION

Hyung-Woo LEE

**Hyung-Woo LEE**

Associate Professor, PhD,  
Department of Public Administration,  
Hannam University, Daejeon, South Korea  
Tel.: 0082-42-629.7467  
E-mail: hwleetrojan@gmail.com

**Abstract**

Scholars have believed that motivation crowding out will occur when performance-based personnel management is practiced in the public sector. However, drawing on a more sophisticated typology of human motivation, this study demonstrates that the provision of extrinsic rewards can motivate, rather than demotivate, public employees even if public employees have strong public service motivation. Analyzing the data from the Federal Employee Viewpoint Survey (USA), this study found that the practice of employee performance management increases work effort and job satisfaction, and that such effects were mediated mainly by the hybrid motivational mechanisms (i.e., via enhanced self-concepts and perceived fairness), rather than by increasing sheer extrinsic motivation. This implies that the practice of employee performance management can be effective in motivating public employees.

**Keywords:** performance management, intrinsic motivation, extrinsic motivation, work effort, job satisfaction.

## 1. Introduction

Scholars of public administration have long debated on the motivational effect of performance-based human resource management in the public sector. Empirical studies on this issue have been conducted in a variety of settings to examine whether it has brought the motivational gains it has promised. Some scholars even argued that it will undermine, rather than increase, public employees' motivation (Lee, 2019b; Weibel, Rost and Osterloh, 2009). The argument against performance management points to a crowding out effect: the provision of extrinsic rewards only results in the gratification of extrinsic desires, and will hinder the gratification of intrinsic needs. However, the underlying assumption of this claim, namely, the dichotomization of human motivation, is too simplistic. Ryan and Deci (2000) suggested that there are three hybrid forms of motivation that have both intrinsic and extrinsic elements, the implication of which is that performance management in the public sector may increase both intrinsic and extrinsic motivation at the same time.

In fact, a comparable amount of counter evidence to the crowding out effect has appeared in the literature (Cameron, 2001; Cameron and Pierce, 1994; Fischer, Malycha and Schafmann, 2019; Greener, 2019; Stazyk, 2013; Wenzel, Krause and Vogel, 2019). Some of these studies found synergistic effect showing that extrinsic rewards actually increased intrinsic motivation. Despite substantial evidence, the literature does not provide sufficient explanation as to why such synergies occur. In this context, it is timely to provide a theoretical explanation of the mechanisms underlying the synergistic effect. Deci and Ryan's advanced models provide meaningful clues for doing so. They further divided the types of extrinsic motivation such that some of extrinsic motivation have varying degrees of intrinsic elements. Thus, this study fills this research gap with a mediation model demonstrating that performance-based human resource management enhances these hybrid types of motivation which, in turn, increase employee work effort and job satisfaction. This study will provide the evidence of a possible synergistic effect that performance management can enhance, rather than compromise, motivation of employees, even if they are oriented toward intrinsic motivation.

In the subsequent sections, the advanced model of intrinsic and extrinsic motivation by Ryan and Deci (2000) will be briefly explained. Then, based on a detailed description of the hybrid type of motivation suggested in the model, hypotheses will be presented on why the implementation of performance management can improve the hybrid motivation of that type. For comparison, the non-hybrid type, extrinsic motivation will also be included as mediating variable. If the total effects of performance management via the hybrid types of motivation are positive and greater than that via extrinsic motivation, it will support the claim that the implementation of performance management can increase the work motivation of those with intrinsically oriented motivational propensity.

## 2. Theory and hypotheses

### 2.1. *Intrinsic and extrinsic motivation*

In 1971, Deci argued that some activities provide their own inherent reward, so external rewards are not necessary for motivating those activities, to establish the dichotomy between intrinsic and extrinsic motivation. The initial distinction made in this dichotomy was clear-cut: the absence or presence of external rewards. Later in 1975, Deci explained how people can be intrinsically motivated even without extrinsic rewards. The central idea is that taking certain (intrinsically motivated) behaviors enhances their positive evaluation about themselves. Building on this argument, scholars have proposed that providing rewards for intrinsically motivated behaviors will hamper, rather than promote, such behaviors, because the act of providing rewards interferes with the positive self-evaluation of the actors as an independent being. However, this has caused confusions by blurring the conceptual distinction between intrinsic and extrinsic motivation (Dyer and Parker, 1975). The defining factor of the distinction has shifted from the presence (or absence) of external rewards to whether the actors' self-concepts are enhanced as a result of taking certain actions. Accordingly, the perceived autonomy has become the criteria for the distinction, because, as Deci and Ryan (1985) explained, the actors' cognition that their actions are attributable to their autonomy has become the key determinant of whether the rewards result in improvement of their self-evaluation.

In response to this conceptual confusion, Ryan and Deci (2000) proposed a more sophisticated typology of human motivation. They placed six different forms of motivation on the continuum that has intrinsic and extrinsic motivation at the ends. The underlying dimensions for this continuum are twofold: the absence of external rewards and the degree of autonomy. According to their typology, intrinsic motivation refers to the state in which external stimulus is absent *and* complete autonomy is perceived. To the contrary, performing an action driven by external stimuli falls into the categories of extrinsic motivation. Ryan and Deci viewed that the degree of autonomy may vary and proposed four different forms of extrinsic motivation accordingly. 'External regulation' refers to the motivational state where the degree of autonomy is minimal. Under this type of motivational influence, people take certain actions with the feeling of outside pressure to get or avoid certain consequential situations. 'Introjection' refers to the situation where actions are made by the desire to gain approval from others and to attain ego-enhancement. 'Identification' is the state where motivation is driven by self-endorsement of the goal, meaning that actors accept the value of fulfilling it. Lastly, 'integration' refers to the situation in which the motivational driver is goal congruence, meaning that actors are fully assimilated into the action so that given goals have become their own. Except for 'external regulation,' the three types of extrinsic motivation are hybrid in nature because the perception of control is located internally. These concepts are summarized in Table 1.

**Table 1:** Comprehensive typology of intrinsic and extrinsic motivation

	Extrinsic motivation			Intrinsic motivation	
	External regulation	Introjection	Identification		Integration
Associated processes	The salience of extrinsic rewards or punishments; Compliance/Reactance	Ego involvement; Focus on approval from self or others	Conscious valuing of activity; Self-endorsement of goals	Hierarchical synthesis of goals; Congruence	Interest/Enjoyment; Inherent satisfaction
Perceived locus of control	External	Somewhat external	Somewhat internal	Internal	Internal

**Source:** Modification of the Summary presented in Ryan and Deci (2000)

It is important to note here that the critical conditions for the crowding out effect is whether an actor perceives his/her action as autonomous (Deci and Ryan, 2012), not whether the actions are externally rewarded. To the extent that an actor *believes* their actions are driven by their autonomous desires, providing rewards for such actions can be perceived by the actors as an indication of their contributions to these achievements. If so, synergistic effect, rather than crowding out effect, will happen.

The perceived locus of control underlying the actions is important for this attribution process: if the locus of control lies outside of themselves, the actors are likely to perceive such action as non-autonomous. To the contrary, if the locus of control is perceived as lying in themselves, people are likely to perceive certain actions as autonomous. Ryan and Deci (2000) proposed that the perceived locus of control is at least not entirely external for other motivational types than 'external regulation'. Thus, the crowding out effect is unlikely to occur for the following three types: integration, identification, and introjection. I would view these three types of motivational state as hybrid.

In fact, the arguments for the crowding out effect in the public sector are closely associated with these hybrid forms of motivation. The notion of public service motivation involves less sheer intrinsic motivation, than it is associated with the three hybrid types of motivation. For instance, Wright and Pandey (2008) argued that the value and goal congruence are the keys to understanding the nature of public employees' motivation. This is essentially 'integration' according to Ryan and Deci (2000). Also, given that public employees' motivational orientation toward intrinsic factors may be built through organizational socialization after entry into a career in public service (Perry, 1997), 'identification' explains public employees' motivation.

Given this, it can be reasonably argued that the provision of external rewards may promote, rather than hamper, the motivation of the public employees strongly affected by public service value achievements. In the subsequent section, we develop several hypotheses explicating the effects of performance management on the hybrid type satisfaction, namely, introjection, identification, and integration. To provide a reference against which the effects of these hybrid types of need satisfaction are compared, the effect of external regulation, a sheer form of extrinsic motivation, will also be tested.

## **2.2. Introjection**

Introjection refers to a type of extrinsic satisfaction in which people are motivated to take certain actions mainly because they anticipate that such actions will bring them the benefit of being approved, recognized, and respected by themselves and others (Ryan and Deci, 2000). This type of motivation is distinguished from sheer extrinsic motivation based on the nature of the rewards: the rewards bear intangible, rather than monetary, values. Although a motivation of this sort is extrinsic by definition, this notion is clearly in line with the concept of public service motivation. Numerous scholars define public service motivation broadly as *something beyond mone-*

*tary interest*, embracing the emphasis on a sense of accomplishment and a feeling of self-worth. Houston (2000) found that public employees tend to put a higher priority on promotion than private sector employees. Admittedly, given promotion usually accompanies pay raise, this finding may imply that public employees appreciate the pay raise that comes with the promotion. However, Houston himself interpreted this finding as showing that public employees put greater emphasis on intangible, rather than tangible benefits, such as respect and recognition from others. In either case, there is no doubt that the notion of public service motivation is used here interchangeably with the notion of introjection. Given that the practice of performance management is not confined to pay decisions, but it involves decisions of promotion as well, the practice will enhance, rather than undermine, the motivation of public employees with strong public service motivation. In addition, there is no reason to think that the impact of performance salary is necessarily confined to the increase in utility in the economic sense. In a modern capitalist society, a high salary is generally perceived as an indication of competence and prestige. Melguizo and Strober (2007) found that the wages of the faculty are closely correlated with the degree of prestige endowed for the university as a result of their activities. On a similar vein, Dyer and Parker (1975) surveyed applied psychologists and found that 17 percent of them think that salary is the motivational tool that has at least some relevance to intrinsic satisfaction. This is mainly because the employees with high salaries retain a greater level of prestige and recognition within organizations. In this sense, the practice of determining pay raise based on individual performance may increase the motivation of public employees, not by attracting them with monetary benefits, but by means of its by-products, namely, increased self-concepts and respect. This applies equally to those employees with strong public service motivation.

*Hypothesis 1. The practice of performance management increases the motivation of public employees via the mediating effect of introjection.*

### **2.3. Identification and integration**

Both identification and integration mean that the organizational goals are internalized by individual employees. Identification and integration happen either when public employees internalize the public values *ex-post* through organizational socialization, or when the individuals with strong public service motivation developed *ex-ante*, through prior socialization, choose public service as their career. The practice of performance management can promote worker motivation in terms of identification and integration. Scholars of public service motivation tend to have assumed that the underlying values of the reform toward performance management are simply incompatible with the public values of governments. However, this assumption may not be validated. Meritocracy, a notion that wealth should be distributed based on individual competence, is an important element of the notion of equal opportunity (Bell, 1972), hailed as a social virtue particularly in the American society (Cawley,

Heckman and Vytlačil, 1999; Oorschot and Halman, 2000). In addition, the rampant spread of neoliberalism since the 1990s has constantly strengthened the importance of meritocracy. Based on these ideologies, people tend to blame the bureaucratic distribution of rewards based on tenure as irrational and unfair since it favors those in seniority. Thus, the execution of performance management practice may signal their employees that their organization is in pursuit of rationality, fairness, and equal opportunity, all of which are important public values. Thus, those pursuing public values will have even greater satisfaction under the practice of performance-based rewards distribution. Particularly in public organizations, under the flag of the new public management, this meritocratic notion of public values has permeated into managerial principles and replaced the traditional ethos of public management (Box *et al.*, 2001).

The adoption of performance management has faced resistance and criticism at the inception, just as all other reform efforts in history have done so. Yet, employees' perception of certain internal policy in the organization is dynamic rather than static. It is malleable by leaders whose responsibility is to shape employees' perception by defining and redefining their reality (Sussmann and Vecchio, 1982). Given the long enough history of performance management practices in the public sector, it is likely that public employees have adjusted their perception of the practice of performance management to appreciate its meritocratic value. Moreover, those with strong public service motivation are even more likely to be susceptible to the redefined public value of productivity and performance enhancement. They are also likely to see the reform as a vehicle to overcome bureaucratic pathology and the apathy of some of their indolent coworkers. The work of Moynihan and Pandey (2007) is informative in this regard. They found that the reform orientation toward reinventing the government increase employees' public service motivation. If so, there is no reason to believe that those with strong public service-oriented employees will experience value conflicts concerning the execution of performance management.

Major critiques of performance management have largely targeted on the inaccuracy and arbitrariness of performance appraisals. Given the goal ambiguity inherent in the sector, many were pessimistic that the problem is not easy to solve (Perry, Engbers and Jun, 2009). If the goal ambiguity of the public sector makes it hard to develop performance indicators that give employees clear directions, even those espousing the values of meritocratic reform will not react in a positive manner. Yet this issue must also have been addressed during the last several decades of improving the system. For example, in 2000, the U.S. federal government revised the regulations to improve the linkage between performance management and strategic planning such that performance evaluations be based on the strategic plans of an organization and work units. The goal ambiguity of the public sector is basically due to the multiplicity of organizational goals that are competing each other (Chun and Rainey, 2005). However, the strategic plan of organizations determines which goals should be prioritized

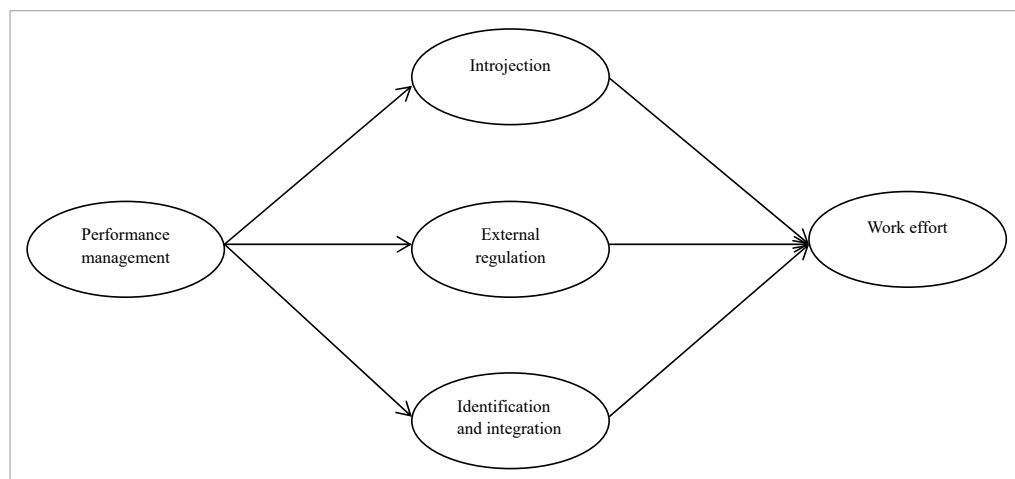
for a given time period, which thus mitigates the effect of goal duality. In addition, the U.S. federal government have constantly trained those in managerial positions to improve their appraisal accuracy. Kroll and Moynihan (2015) conducted an extensive study examining the impact of these training programs to find that those participating in the trainings tended to base their performance judgment on performance data and strategic goals more frequently, rather than making arbitrary personnel decisions without any evidence.

Therefore, the practice of distributing organizational rewards based on individual performance is likely to enhance, rather than undermine, satisfaction in terms of identification and integration in spite of some initial obstacles. Thus, public service motivation and performance management are not mutually interfering with each other; rather they may be complementary to each other.

*Hypothesis 2. The practice of performance management increases the motivation of public employees via the mediating effect of identification and integration.*

#### 2.4. External regulation

The execution of performance management, particularly performance-based pay, can both increase and decrease the absolute amount of salaries employees receive. This is because the practice of performance pay in the public sector is not accompanied by increasing the aggregate amount of the budget allotted for paying staff salaries. In this vein, many have noted that the execution of the performance pay policy usually creates a zero-sum game situation (Bowman, 2010; Shaw *et al.*, 2009). Thus, there is no clear reason to conclude that the execution of performance management necessarily increases the overall pay satisfaction level of employees: the dissatisfac-



**Figure 1:** Research model

**Source:** Author's own work



tion of those who received less will cancel off the satisfaction of those who received more. Nevertheless, the effect of performance management via this mediating linkage will be included in this study because it is the most basic and well-known mechanism of its motivational effect. The purpose of testing this hypothesis is to provide the criteria against which the extent of the effects of the previous hypotheses can be compared.

*Hypothesis 3. The practice of performance management increases the motivation of public employees via the mediating effect of external regulation.*

### **3. Methods**

#### **3.1. Data and procedure**

The dataset for this study is obtained from the survey data of the FEVS (Federal Employee Viewpoint Survey). The FEVS is a survey conducted annually by the Office of Personnel Management to the entire workforce in the U.S. federal government. The survey contains more than 80 questionnaire items covering a diversity of issues relevant to management, such as leadership, human resource management, etc. Numerous studies of various topics have used this data (Fernandez *et al.*, 2015), and an increasing number of studies using this data appear continually in the major public administration journals.

The use of FEVS is consistent with the purpose of this study. The subject of the FEVS are the employees in the U.S. federal governments in which the reform of performance management was initiated and has been the most extensively and persistently executed. In addition, many of the questionnaire items in the FEVS include the attitudes toward the performance management system. Given that the practice of performance management in other countries is modeled after the U.S. federal government, the lessons from the U.S. experience will provide a meaningful clue for improving the effectiveness of performance management systems around the world.

The most recent data, FEVS 2017, was used for this study. Due to the secondary nature of the FEVS data, Fernandez *et al.* (2015) suggested that researchers have to select the questionnaire items based on a thorough theoretical discussion of the concepts or utilize the sets of measurements used in prior studies. This study attempts to follow this suggestion. For the particular FEVS data for the year 2017, 1,068,151 of the U.S. federal employees were invited, which represents approximately 50 percent of the entire body of the federal government employees. Among the invited employees, 468,105 returned the survey, which makes the response rate of 45.5 percent. The demographic composition of the sample is presented in Table 2.

**Table 2:** Demographic characteristics of the sample

Variable	Category	Proportion	Variable	Category	Proportion
Sex	Male	51.3	Ethnicity	White	73.1
	Female	48.7		Black	14.8
Work location	HQ	38.9		Hispanic	8.8
	Field office	61.1		Asian	1.8
Managerial position	Non-supervisor	65.8	Age	25 and under	0.8
	Team leader	1.5		26-29	2.7
	Supervisor	13.7		30-39	18.9
	Manager	6.2		40-49	25.6
	Senior leader	1.8		50-59	35.6
The number in the proportion denotes percentage.				60 or older	16.4

Source: Author's own work

### 3.2. Measurement

#### 3.2.1. Independent variable

The independent variable in this study is the extent to which the agencies and the work-units within the federal government practice the policies mandating the use of performance information for personnel decisions, such as promotion, pay, and awards. Performance management can be conceptualized in many ways, given that the movement toward performance management must entail and has entailed the reformation of managerial practice that is wide in its scope. Nevertheless, the measurement of the independent variable in this study focuses on the most fundamental aspect of performance-based human resource management, namely, the extent to which the personnel decisions are made based on performance information.

The three items presented in Table 2 were selected from the pool of FEVS questionnaire items. The Cronbach alpha was .848. The three subjects referred to in this measurement, namely, promotion, pay raise, and awards, are probably the most salient and frequently cited elements of organizational rewards. Hence, they are the core elements of performance management. The same three questions are used in some prior studies to measure the extent to which the practice of performance management is implemented (Lee, 2019a; Lee, 2019b).

#### 3.2.2. Dependent variables

This study uses two different dependent variables. First, this study uses a level of overall satisfaction level of employees about their jobs and organizations. According to the classic theory of motivation, human behaviors are fundamentally motivated by their desires to satisfy certain types of innate needs. Thus, the extent to which one is satisfied with their jobs and organizations can be a good proxy for their motivation level. Second, this study uses work effort. The classical view of motivation may be

complemented by the measure of behavioral volition. This is because the concept of motivation involves behavioral relevance. The textbook of organizational behavior tends to emphasize the behavioral element of the concept of motivation. For instance, Langton, Robbins and Judge (2013) defined motivation as an 'individual's desire to voluntarily make [an] effort to achieve the goals'. Given that one's satisfaction may not result in taking a certain action, this study includes a measure of work effort, the extent to which one is willing to take certain actions conducive to the accomplishment of tasks. The questionnaire items for these two dependent variables were also presented in Table 2. The Cronbach alpha for job satisfaction is .908. The Cronbach alpha for work effort is .773.

### *3.2.3. Mediating variables*

This study has two mediating variables: introjection, identification (or integration). First, introjection refers to the motivational state in which actions are regulated by the actors' desires to obtain approval, recognition, and respect from self and others. The basis for this type of motivation is the enhancement of the self-evaluation. The four items from FEVS are used as presented in Table 2. The first two items focus on the end result of introjection, namely, enhancement of self-concepts, while the last two items focus on the instant outcomes of performance management in terms of introjection, namely, approval, recognition, and respect. The reliability is .855.

Second, identification or integration refers to the motivational state in which actors internalize the goals of external parties. It is important to note that the difference between identification and integration is a matter of degree of internalization of organizational goals. Integration happens when actors are so deeply assimilated to the given goals that they do not discern the locus or source of their motivation. Thus, these two concepts can be measured by a single construct. Of course, the most appropriate and directly relevant construct indicating the extent to which employees have internalized the organizational goals would probably be the goal congruence. However, given the limited data availability, this study takes an alternative approach. As discussed in the hypothesis section, the values underlying the practice of performance management involve meritocracy, a notion that those with greater competence should receive greater rewards. This notion contains an element of fairness perception. Based on this logic, this study alternatively measures the extent to which employees believe the personnel decisions are fair, to be more specific, free from favoritism and discrimination. This can surely be achieved by a thorough and extensive execution of performance management practices. The four items from FEVS, relevant to this conception of identification, are selected as presented in Table 2. The Cronbach alpha for this measure is .831.

Lastly, external regulation is measured by a single item indicating the extent to which employees are satisfied with their salaries. 'Considering everything, how satisfied are you with your pay?' The measurements are summarized in Table 3 with reliability scores.

**Table 3: Measurements**

Variables	Number in the original dataset	Questionnaire items	Reliability (Cronbach's Alpha)
Performance management	22	Promotions in my work unit are based on merit.	.848
	25	Awards in my work unit depend on how well employees perform their jobs.	
	33	Pay raises depend on how well employees perform their jobs.	
Introjection	4	My work gives me a feeling of personal accomplishment.	.855
	31	Employees are recognized for providing high quality products and services.	
	32	Creativity and innovation are rewarded.	
	65	How satisfied are you with the recognition you receive for doing a good job?	
External regulation	70	Considering everything, how satisfied are you with your pay?	n.a.
Integration and identification	15	My performance appraisal is a fair reflection of my performance.	.831
	37	Arbitrary action, personal favoritism and coercion for partisan political purposes are not tolerated.	
	38	Prohibited Personnel Practices (for example, illegally discriminating for or against any employee/applicant, obstructing a person's right to compete for employment, knowingly violating veterans' preference requirements) are not tolerated.	
	45	My supervisor is committed to a workforce representative of all segments of society.	
Work effort	7	When needed I am willing to put in the extra effort to get a job done.	.773
	8	I am constantly looking for ways to do my job better.	
Job satisfaction	40	I recommend my organization as a good place to work.	.908
	69	Considering everything, how satisfied are you with your job?	
	71	Considering everything, how satisfied are you with your organization?	

**Source:** Author's own work

## 4. Results

### 4.1. Measurement model

Confirmatory factor analysis (CFA) is conducted using the five latent variables: performance management (independent variable), work effort and job satisfaction (dependent variables), introjection and identification (or integration) for mediating variables. For confirmatory factor analysis (CFA) and SEM alike, the thresholds for fit indices was .08 for SRMR (Hu and Bentler, 1999) and RMSEA, (MacCallum, Browne and Sugawara, 1996) and was .90 for other indices (Kline, 1998). The result of CFA reveals that the proposed measurement model fit the data to an acceptable degree (CMIN/df=2,497.334, SRMR=.0468, GFI=.914, NFI=.940, CFI=.940, RMSEA=.086).

To the contrary, the fit indices for the one factor model produced a poor fit (CMIN/df=6,383.850, SRMR=.0692, GFI=.771, NFI=.829, CFI=.829, RMSEA=.139). The CRs (composite reliability) and AVEs (average variance extracted) were found to be all acceptable (see Table 4).

**Table 4:** The measurement validity indicators

		Composite reliability	Average variance extracted
Independent variable	Performance management	.848	0.651
Mediating variables	Introjection	.883	0.658
	Identification and integration	.841	0.572
Dependent variables	Work effort	.789	0.652
	Job satisfaction	.912	0.777

The most widely accepted rules of thumb (Hair *et al.*, 2010) for CR and AVE are .7 and .5 respectively.

**Source:** Author's own work

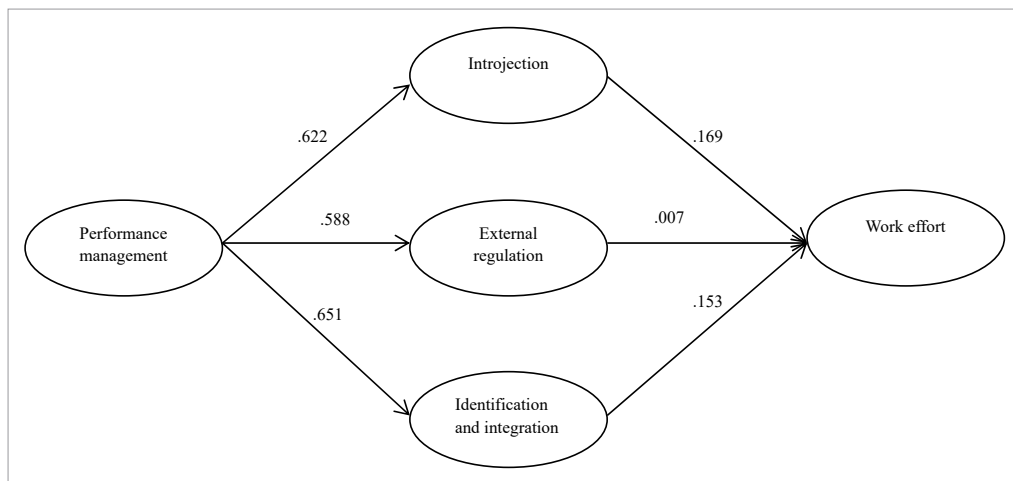
#### 4.2. Structural model

The proposed model of three hypotheses was tested using structural equation modeling (SEM). Figure 2 presents the results of analyzing the structural model on work effort. All fit indices, but the CMIN (an equivalence of Chi-square) comfortably passed the rule of thumb threshold points (CMIN/df=2,534.436, SRMR=.0486, GFI=.923, NFI=.934, CFI=.934, RMSEA=.087), indicating that the proposed model fits the data to a reasonable degree. Given that the CMIN is correlated with the sample size, the large CMIN does not necessarily invalidate the analysis. It is known to be nearly impossible to obtain an insignificant value of CMIN when analyzing the sample of more than 400 cases.

The primary effects of performance management on the mediating variables were the greatest for identification and integration (.651) and the least for external regulation (.588). Its effect on introjection was comparable to that of identification and integration (.622). This means that performance management satisfies not only employee's needs for external rewards but also needs for recognition (introjection) and value congruence (identification and integration). To the contrary, the secondary effects of these mediating variables on work effort show a similar pattern: the greatest for introjection (.169) and the least for external regulation (.007). The effect of identification and integration was comparable to that of introjection (.153).

The indirect effect of performance management on work effort via the mediating link of introjection (.105) was comparable to that via identification and integration (.099). To the contrary, the indirect effect via external regulation was minimal (.004). This indicates that the major reasons why the execution of performance management increases work effort is because it increases the beliefs of employees that their work

performance is recognized (introjection) and the values their organization pursue are congruent with theirs (integration and identification).



**Figure 2:** Structural model of work effort

**Source:** Author's own work

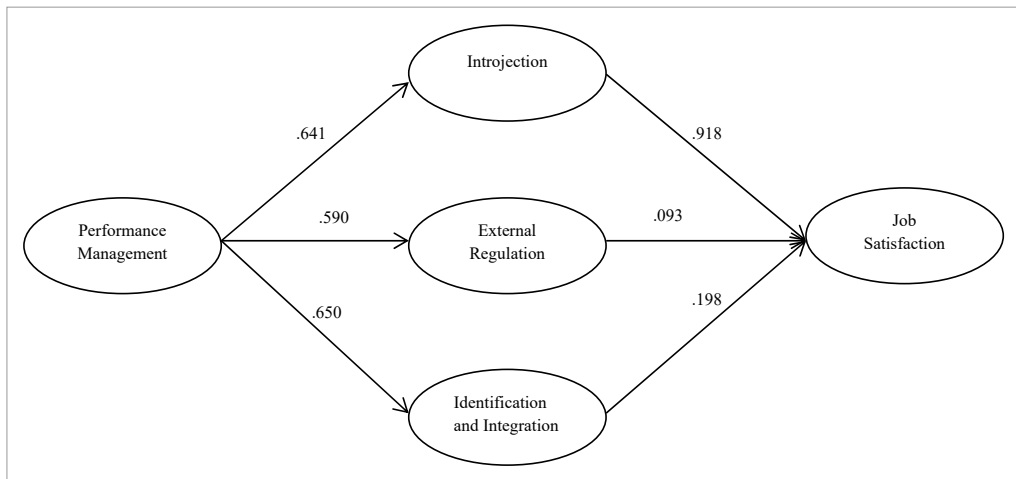
Although the initially proposed model showed a reasonable fit, the author speculated that the three mediating variables might interact with each other. This speculation is reasonable given that this study assumed previously that the pay might be an indication of recognition and respect. In other words, introjection (i.e., recognition and respect) may be associated with external regulation (i.e., pay satisfaction).

Based on this speculation, an alternative model with the additional causalities between external regulation and speculation as well as between external regulation and identification (or integration) was examined. The result indicates that the fit indices have become slightly worse compared to those of the initially proposed model (CMIN/df=2,593.914, SRMR=.0486, GFI=.923, NFI=.934, CFI=.934, RMSEA=.088). Also, the coefficients of the added association were minimal. The coefficient for the association between external regulation and introjection was .018, and it was -.008 for the association between external regulation and identification (or integration).

Figure 3 presents the result of analyzing the structural model on job satisfaction. All fit indices, but the CMIN/df, passed the threshold points (CMIN/df=2,735.717, SRMR=.0444, GFI=.907, NFI=.936, CFI=.936, RMSEA=.091), indicating that the proposed model fits the data to a reasonable degree. The primary effects of performance management on the mediating variables showed a similar pattern to the model on work effort (Figure 1). To the contrary, the secondary effects of these mediating variables on job satisfaction show a different pattern. The order of the coefficient sizes was generally similar to the previous model. However, the effect size of introjection (.918) was much greater than the other two mediating variables: .198 for identifi-

cation (or integration) and .093 for external regulation. This means that people are likely to be satisfied to a greater extent by getting recognition for task achievement than by getting monetary rewards or by the value congruence.

The finally calculated indirect effect of performance management on work effort via mediating link of introjection (.588) was much greater than the mediating effects of the other two variables: .005 for external regulation and .129 for identification (or integration). This indicates that the major reason why the execution of performance management increases job satisfaction is largely because it increases the chances for them to be recognized for task achievement (introjection).



**Figure 3:** Structural model of job satisfaction

**Source:** Author's own work

For the same reason discussed above, an alternative model with adding the two associations between external regulation and speculation and between external regulation and identification (or integration) was tested. The result indicates that the fit indices were generally similar but slightly worse, compared to those of the initially proposed model (CMIN/df=2,787.171, SRMR=.0443, GFI=.907, NFI=.936, CFI=.936, RMSEA=.091). Also, the coefficients of the added association were minimal. The coefficient for the association between external regulation and introjection was .022, and it was -.011 for the association between external regulation and identification (or integration).

## 5. Discussion and conclusions

This study has proposed that performance management can enhance public employees' motivation, regardless of their public service oriented motivational tendencies. This study first maintained that the concept of public service motivation is

more closely relevant to the three motivational mechanisms of hybrid nature than to sheer intrinsic motivation. Subsequently, this study analyzed data for the U.S. federal employees to find that the practice of performance management enhances, rather than hampers, employees' satisfaction in terms of these three hybrid types of desires. Therefore, this study illuminates the compatibility and possible synergistic effect of performance management with public service motivation.

### **5.1. Theoretical implications**

This study contributes to the theory of performance management in terms of a number of points to be discussed below. First, this study may correct the common misunderstanding about PSM. Scholars have misunderstood the concept of PSM, arguing that PSM is a type of intrinsic motivation. This misunderstanding has bred a conceptual confusion. Although the early scholars have defined the concept of PSM as the personal orientation toward the contribution to the noble public goods, later scholars have conceptualized PSM more broadly as the propensity of valuing non-monetary rewards (e.g., Houston, 2000). This study explained that PSM is more relevant to the notion of hybrid forms of motivation rather than the notion of intrinsic motivation. This conceptual clarification will help future researchers better understand the nature, antecedents, and outcomes of PSM.

Second, as discussed at the beginning, scholars have believed that the execution of performance-based personnel management hampers work attitudes of public employees by crowding out their intrinsic motivation (Lee, 2019a; Weibel, Rost and Osterloh, 2009). In this study, which adopted the fine-grained concepts of intrinsic motivation, the practice of performance management was found not only to satisfy federal employees' salaries but also to increase the likelihood of being recognized and respected, and consequently self-improvement. It also promotes the perception that personnel decisions in their work units are free from favoritism and discrimination, and hence, fair. Moreover, the effects on these two hybrid forms of satisfaction were greater than its effect on pay satisfaction. This reveals that the impact of performance-based reward distribution extends beyond simply attracting employees with an increase in economic utility. The practice of performance management seems to increase the possibility of the U.S. federal employees to be recognized and respected as high performers, as well as their perception that personnel decisions in their agencies are free from bias and discrimination. Given that the concept of public service motivation involves these hybrid types of motivation, rather than sheer intrinsic motivation, these findings illuminate the prospect of performance management practice for motivating public service employees oriented motivational tendencies.

Third, in supporting H2, it was argued that public employees were likely to have adjusted their perceptions toward performance management regime and embraced the central values underlying the reform over time. In this vein, it is important to note that the effect sizes of identification and integration shown in Figures 1 and 2



reflect the sheer result of perceived value congruence, above and beyond the impact of personal gains (both in tangible and intangible terms) obtained by increased fairness. The effects of perceived impartiality on work effort and job satisfaction via increased personal gains are controlled here because such causalities are also included in the model: the coefficients of introjection (i.e., increased recognition) and external regulation (i.e., pay satisfaction) represent such effects. This means that the execution of performance management contributes to ensuring fair competition among employees thereby enhancing the organizational justice perception.

Lastly, the mediating effects of pay satisfaction (i.e., external regulation) on both indicators of motivation, work effort and job satisfaction, were negligible. To the contrary, the comparable effects of introjection, identification, and integration on work effort and satisfaction were greater than that of external regulation, which is directly relevant to the core assumption of public service motivation. One may not be able to tell whether the motivation crowding out has happened. However, at least, this finding is compatible with the widely-accepted and more general belief that monetary reward is not a critical factor of public employees' motivation. Thus, although the findings of this study are novel, they do not necessarily contradict with the arguments of public service motivation theory. Rather, they sophisticate those arguments.

## **5.2. Practical implications**

The results of this study shed new light on the value of performance management practice. Scholars of public administration have long viewed the practice of performance management, particularly the element of performance pay, as a sort of 'peril' that undermines the motivational well-being of public employees (Bowman, 2010; Perry, Engbers and Jun, 2009). However, the logic of public service motivation is not incompatible with the idea underlying the practice of performance management. At the very least, we can expect that the practice of performance pay will have a 'side effect' of giving recognition to those public employees contributing to the public values to a greater degree than others. Of course, a greater level of managerial efforts is necessary to align the indicators of individual performance with a more or less consensual degree of their contribution to the public goals and values. However, there is no reason that this cannot be achieved.

One of the alternative strategies may be to grant an award to those public employees who genuinely contribute to the goals and values of their organizations. This award can be used as complementary and in parallel to the typical performance pay practice. It also can be used in a way to overcome the paradox of performance management (Smith, 1995; Van Thiel and Leeuw, 2002), in which employees only focus on tasks for which the results are easily noticeable and appreciated. For instance, based on the 360-degree evaluation (Tornow and London, 1998), managers need to identify those employees who are self-sacrificial in their efforts to accomplish organizational tasks and goals, but are not properly appreciated by the formal performance

evaluation, and reward them with this award. Disseminating the selection of awards through intranet so that everyone knows the award winners may be an effective way of enhancing their self-esteem.

### **5.3. Conclusion**

The study shows that performance management practices can also succeed in government organizations, unlike the general assumption that they are incompatible with traditional management practices, culture, and employee attitudes in the public sector. This positive effect can be enhanced by linking performance rewards to individual achievement of public value. Also, given that the U.S. federal government has been working in the public sector for decades, it is worth noting which efforts the U.S. federal government has made to improve the efficiency of its performance management system.

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