

The Effect of Public Servants' Reinvention Reform Perception on Organizational Performance in Taiwan: The Mediating Roles of Public Service Motivation and Organizational Commitment

Hsiang Te Liu*, Don-Yun Chen†

* Ming Chuan University, Taiwan

† National Chengchi University and Taiwan Institute for Governance and Communication Research, Taiwan

This study investigates the effects of public servants' reinvention reform perceptions, public service motivation (PSM), and organizational commitment on organizational performance in the public sector. There is very little research exploring those relationships in Taiwan, and the topic is thus worthy of more systematic examination. This paper utilizes the Taiwan Government Bureaucrats Survey II (TGBS II), which collected 1,464 valid samples from the public sector and used structural equation model to test the hypotheses. We find that reinvention reform perception positively affects public servants' PSM, organizational commitment and organizational performance. Finally, results demonstrate that organizational commitment mediates the relationship between PSM and organizational performance.

Keywords: reinvention reform, public service motivation, organizational commitment, organizational performance

INTRODUCTION

Government reforms from the scientific management movement in the 19th century have been identified as improving the productivity, efficiency and service quality of government agencies (Heinrich, 2003). Most current government reforms are based on new public management (NPM), which is a movement to reinvent government (Osborne, 1993; Kettl, 2002). Government reinvention includes concepts such as treating citizens as customers, market orientation, more government flexibility, responsiveness, and outcome orientation (Osborne & Gaebler, 1992; Denhardt & Denhardt, 2008). For instance, Fu & Chang (2019) show that innovation serves as a promising means of improving public services in Taiwan. Hsieh & Huang (2019) also indicate that there is a significant difference in civil service promotion structure between public managers and public employees. In recent decades, many administrative reform measures have been

implemented in an attempt to achieve administrative efficiency, including reducing red tape, decentralizing, empowering, and offering incentives to improve public service quality (Osborne & Gaebler, 1992).

However, new public management, government reinvention, and market orientation have also been criticized by many public administration scholars. Some of these criticisms target the overemphasis on efficiency and sacrifice of public values such as equality and fairness (Bozeman, 2007), while others note that public organizations are treated as principal-agent relationships rather than a trustee or beneficiary relationship (Dunleavy & Hood, 1994, p. 7). In addition, public service motivation (PSM) researchers believe that altruism is discounted by new public management (Perry & Hondeghem 2008a; Perry & Vandenabeele, 2008; Houston, 2009; Perry et al. 2009). Therefore, PSM is regarded as a viable alternative instrument for supporting new public management and government reinvention (Perry & Hondeghem, 2008a; Houston,

2009).

Government agencies are continuously seeking to improve the quality of public services, but the general public is inclined to believe that the productivity of civil servants is inferior to that of private companies (Frank & Lewis, 2004). Over the last few decades, many studies have begun to explore employee job motivation (Rafikul & Ismail, 2008). Perry and Wise (1990) are among the first to examine service motivation in governments and argue that the PSM is based on ethics and public interest rather than personal interest (Houston, 2006).

In the 1990s, PSM has been more specifically studied, and concepts of public service motivation were formulated. PSM is defined by Perry and Wise (1990, p. 368) as the motivational inclination of individuals toward public institutions and organizations, while motivation is regarded as the psychological need that arises when individuals face coercive power. Early studies divide PSM into four sub-dimensions: attraction to policy-making, commitment to the public interest, self-sacrifice, and compassion (Perry, 1996). However, other studies delineate only three dimensions of PSM, namely public interest commitment, self-sacrifice, and empathy (Course et al., 2008). Currently, PSM is generally perceived as altruistic, which indicates an emotional response to public organizations and a form of prosocial behavior (Perry & Hondeghem, 2008a).

Perry (1996) developed the PSM scale, and many scholars subsequently conducted empirical studies on the relationship between PSM and job satisfaction, organizational commitment, and job performance (Huang, 2019). Naff and Crum (1999) found that PSM affects job satisfaction and turnover intention while Moynihan and Pandey (2007a; 2007b) found no positive correlation between PSM and public organizations. In other words, results are inconsistent and could be due to the impact of other mediating variables.

Individuals choose to work in government departments or private companies based on motivational differences (Jurkiewicz, Massey, & Brown, 1998). Houston

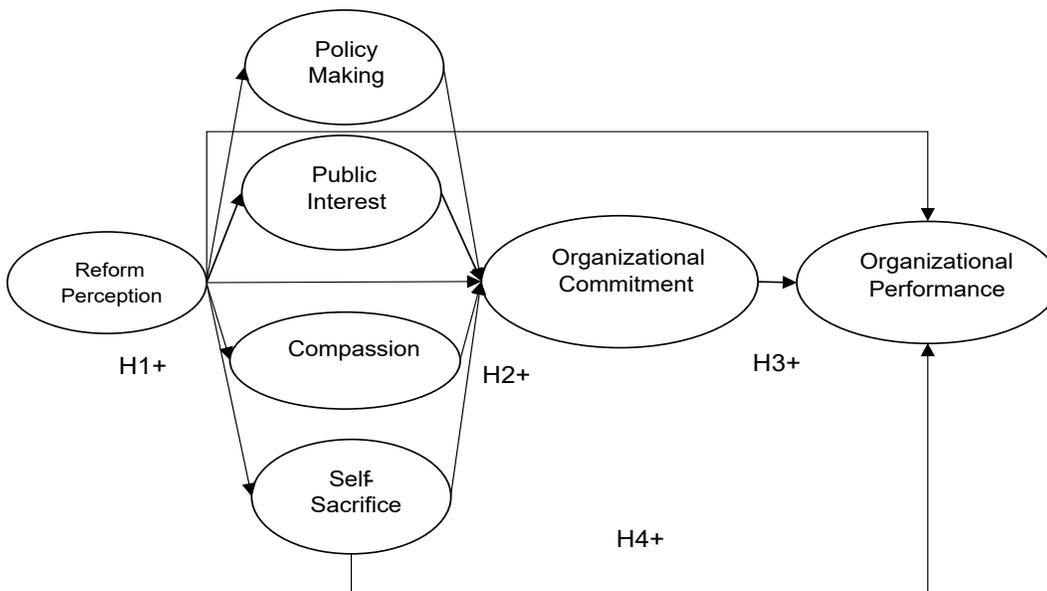
(2000) points out that civil servants must serve the public from an ethical perspective and care about the community and public interest. Perry and Wise (1990) point out that government agencies are based on rational motivations (the maximization of personal interest), norm-based (the desire to serve the public interest) and affective motivations (human emotion) (Kim, 2011). This study explores the relationship between government reinvention, PSM, organizational commitment and job performance in civil servants.

Some theories point out that PSM can produce positive results (Huang, 2019), especially when the prosocial motivations of civil servants are galvanized. Like the self-concept (Shamir, 1991), this view suggests multiple identities within individuals, and their satisfaction increases when public values are consistent with their personal values. When civil servants consider themselves givers, their prosocial motivations are reinforced (Grant, Dutton, & Rosso, 2008). Gould-Williams et al. (2014) also indicated that self-concept is the key to understanding the formation of positive attitudes and behaviors in PSM when civil servants involve themselves in meaningful public services. Therefore, we propose that government organizations provide civil servants with duties that are consistent with prosocial identity to strengthen their self-identification. With such an increase in self-identification, organizational commitment and job satisfaction will also increase.

The Reinvention Reform in Taiwan and Its Ramifications

Since the 1990s, Taiwan's Executive Yuan has begun to plan for the "Government Reform Project" which includes the reorganization and re-engineering of the public sector. Taiwan's Legislative Yuan passed Pension Reform in 2017, which affected public servants' retirement funds. Retired civil servants who receive an 18% preferential interest deposit will stop paying within two and a half years, and the pension replacement rate decreases to a reasonable level for a 10-year transition period. The Pension Reform is also considered to be one kind of government reinvention.

This study claims that the reform's emphasis on

Figure 1. The Conceptual Framework

empowerment, participation, reducing red tape, and improving efficiency and effectiveness should positively affect civil servants' public service motivation and thus further improve their organizational commitment and organizational performance. However, this is only theoretical speculation. Whether administrative reform can improve the public service motivation remains to be verified by empirical research.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Many empirical studies confirm that administrative reforms, including empowerment, , decentralization, and the reduction of red tape improve civil servants' public service motivation. Additionally, such reforms further enhance their organizational commitment and organizational performance. Therefore, this study sets up the following conceptual framework, as seen in Figure 1 above.

The Effect of Government Reinvention on PSM, Organizational Commitment and Organizational Performance

PSM is thought to have a positive influence on social behavior and job performance (Wright, 2007). Many

studies have pointed out that civil servants who place a higher value on assisting others have a lower need for personal rewards and incentives (Bright, 2008; Wright & Pandey, 2008). It is also generally believed that altruistic civil servants will have higher organizational commitment, job satisfaction, and job performance (Castaing, 2006; Cerase & Farinella, 2006; Pandey & Stazyk, 2008).

Some scholars of PSM have concerns about incorporating market logic into the government (Moynihan, 2008; Houston, 2009). Moynihan (2008) and Houston (2009) both point out that applying performance-based salary in the government will result in goal displacement and may even reduce job motivation among civil servants. Perry and Hondeghem (2008a, p. 7) point out that the comparison of PSM with new public management and government reinvention may overlook some fundamental differences, including differences in human resources, organizational incentives, and institutional design.

Perry and Hondeghem (2008b, p. 276) indicate that new public management advocates for involvement in and empowerment of institutional design. Existing centralization, red tape, complex organizational

systems, and regulations result in disconnection between civil servants and the organization, rendering it difficult to maintain service motivation. Therefore, Perry and Hondeghem (2008b, p. 276) advocate enabling self-government through empowering participation in decision making.

To develop empowerment and participation mechanisms for civil servants, the bureaucratic red tape must be reduced (Naff & Crum, 1999; Perry & Hondeghem, 2008b), and the concept of red tape reduction in government agencies is based on new public management and government reinvention. PSM and government reinvention are complementary rather than conflicting. Studies by Naff & Crum (1999) and Moynihan & Pandey (2007b) confirm the correlation between government reinvention, red tape reduction, and improving PSM.

Mohd Noor and Othman (2012) explore the impact of decentralization and participation on organizational commitment and performance after 20 years of governmental reforms in Malaysia. Specifically, Malaysia introduced the Modified Budgeting System (MBS) to encourage civil servants to participate in public affairs. In a survey of mid-level managers within the Malaysian government, Mohd Noor and Othman (2012) find that strengthening civil servant participation can improve organizational commitment perception.

In an examination of Korea after the 1995 financial crisis, Oh and Park (2011) conclude that the events led to a series of government reinventions and the adoption of new public management as a reform tool. Oh and Park's study also confirms that the emphasis on empowerment and participation in government reinvention can improve organizational commitment. In an exploration of human resource managers in American states, Yang and Pandey (2009) explore the impact of results-oriented reforms on organizational commitment. They also justify the relationship between government reinvention and organizational commitment.

Smeenck, Teelken, Eisinga, and Doorewaard (2009)

find that both managerialism and organizational commitment can improve organizational performance. Their results also suggest that government reinvention has positive effects on organizational performance. Niazi (2011) posits that government agencies must become "learning organizations" and strengthen program planning, designing, implementation, and evaluation through the reinvention of education and training. When civil servants can effectively perform their jobs and gain competitive advantages, organizational performance can be improved.

Enders, de Boer, and Weyer (2013) argue that organizational autonomy and control in the reinvention of the education system can improve administrative performance. The Dutch education system strengthens managerial discretion and internal control, with such reinventions being justified to improve organizational performance.

Walker and Boyne (2006) use the British Labor's program of public management reinvention as a research object to explore the impact of rational planning, devolution, delegation, flexibility, incentives, and enhanced choice on organizational performance. Walker, Damanpour, and Devece (2010) point out that management innovations are a feature of public management reinvention, and management innovations are also thought to affect organizational performance management. It is also true for civil servants that administrative reinventions can improve organizational performance. Therefore, the following hypotheses are proposed:

Hypothesis 1a: Government reinvention has a positive impact on PSM.

Hypothesis 1b: Government reinvention has a positive impact on organizational commitment.

Hypothesis 1c: Government reinvention has a positive impact on organizational performance.

The Effect of PSM on Organizational Commitment

Civil servants with prosocial motivations demonstrate that PSM leads to beneficial outcomes to the organization. According to Shamir (1991), the self-

concept of individuals comprises multiple identities, and consistency between their roles and identities results in perceived satisfaction. Individuals who perceive themselves as givers will establish prosocial identities and believe that these identities embody their important values and motivations (Grant, Dutton, and Rosso 2008). Gould-Williams et al. (2014) and Vandenabeele (2009) point out that if organizations can provide meaningful public services, the PSM of civil servants can lead to a more positive attitude and behavior.

We assume that if government agencies can enable prosocial identities in civil servants, their self-concept will be strengthened, and they will demonstrate behaviors that are beneficial to the organization, which will, in turn, increase their organizational commitment (Gould-Williams et al., 2014; Kim, 2012). PSM is believed to be related to organizational commitment (Perry & Wise, 1990), and many studies assert that organizational commitment is the result of PSM in public servants (Castaing, 2006; Park & Rainey, 2008; Taylor, 2008; Vandenabeele, 2009). However, other studies regard PSM as the antecedent of organizational commitment (Camilleri, 2006). In a study of France, Castaing (2006) finds that PSM precedes organizational commitment and suggests that employing individuals with PSM can enhance organizational commitment. In an examination of Australia, Taylor (2008) finds a relationship between PSM and organizational commitment. In an exploration of Malta, Camilleri (2006) finds that organizational commitment strengthens PSM, with affective commitment being particularly influential in directly affecting PSM. Kim (2011) comes to a similar conclusion, by demonstrating that PSM has a positive impact on organizational commitment in their study of firefighters.

Therefore, organizational commitment is regarded as both an antecedent and a result of PSM (Pandey & Stazyk, 2008). Likewise, for government agencies, when civil servants have high PSM, their emotional attachment to the organization is also high, which in turn increases their organizational commitment, which leads to the second hypothesis:

Hypothesis 2: PSM has a positive impact on organizational commitment.

The Mediating Effect of Organizational Commitment on the Relationship between PSM and Organizational Performance

Many past studies on PSM regard PSM as a type of prosocial behavior, and related to individual and organizational performance (Houston, 2008; Pandey & Stazyk, 2008; Huang, 2019). However, few studies have examined whether government reinvention affects PSM, and subsequently, affect organizational commitment and job performance.

Ahmad, Ahmad, and Shah (2010) pointed out that organizational commitment can increase organizational performance perception in their survey of employees. This same relationship also likely holds for civil servants, and their organizational performance will increase when they have a high level of commitment to the organization. Ricketta's (2002) meta-analysis also point out that more than one hundred articles justify the relationship between organizational commitment and organizational performance. From an empirical viewpoint, when the civil servants' organizational commitment is high, then they will have high organizational performance perception.

Ali, Rehman, Ali, Yousaf, and Zia (2010) explore the relationship between corporate social responsibility, organizational commitment, and organizational performance and find a positive relationship between organizational commitment and organizational performance. Moreover, Kim (2005) explore the relationship between affective commitment and organizational performance in a sample of 1,739 Korean civil servants and find that the two constructs have a positive relationship.

Smeenk, Teelken, Eisinga, and Doorewaard (2009) find that European universities try to enhance organizational efficiency and effectiveness with methods from managerialism. But some scholars also argue that managerialism will reduce organizational performance. Smeenk, Teelken, Eisinga, and Doorewaard finally confirms that both managerialism

and organizational commitment can improve organizational performance.

In a survey of 13,532 federal employees in Switzerland, Ritz (2009) finds that corporate management skills and organizational commitments can increase organizational performance. Many studies have also argued that PSM positively affects both individual and organizational job performance (Huang, 2019). Alonso & Lewis (2001) found that PSM positively affects job performance, and Vandenberghe (2009) found that PSM may also affect job performance through the mediating effect of organizational commitment. For civil servants, a high PSM would improve their job performance through organizational commitment. In sum, this literature leads to the following two hypotheses:

Hypothesis 3: Organizational commitment has a positive impact on organizational performance.

Hypothesis 4: Organizational commitment mediates the relationship between PSM and organizational performance.

METHODOLOGY

Sample, Instruments, and Procedure

This study utilizes the Taiwanese Government Bureaucrats Survey II (TGBS II), which collected 1,464 valid survey questionnaires through random sampling from public servants who worked at government agencies in Taiwan. Respondents were assured of full confidentiality.

The profile of the sample (below in Table 1) shows that 23.8% are supervisors, 51.4% are women, 82.2% have bachelor's degrees, master's degrees, or PhD degrees, and the average work experience in government agencies is 16.97 years.

Measures

Dependent Variables

The organizational performance was measured by revising the items developed by Kim (2005). Subjects responded to questions on a 0–10-point scale, ranging

from 1 for “strongly disagree” to 10 for “strongly agree.” Internal reliability Cronbach’s α of the scale was 0.87.

Table 1. Characteristics and Background Information of Respondents (N = 1,464)

	Respondent Characteristic	Percentage
Gender	Man	48.6%
	Woman	51.4%
Position	Supervisor	23.8%
	Non-supervisor	76.2%
Work experience	1-10	86.4%
	11-20	9.5%
	21-30	3.4%
	Over 31	.7%
Education	High school or below	2.1%
	College	10.3%
	University	36.5%
	Master's	48.2%
	Doctor	3.1%

Independent and Mediating Variables

All of the independent and mediating variables use a 6-point scale, ranging from 1 for “strongly disagree” to 6 for “strongly agree.” Reinvention reform is measured by revising these items developed by Hui & Lee (2000), leading to the internal reliability of Cronbach’s α of the scale being 0.94. Organizational commitment is measured by revising these items developed by Meyer & Allen (1997), with the internal reliability of Cronbach’s α of the scale being 0.81. PSM is measured by revising these items developed by Perry et al. (2008), internal reliability Cronbach’s α of four sub-scales were 0.69, 0.64, 0.89 and 0.79.

Controlling for Common Method Variance (CMV)

CMV (common method variance) is defined as “variance that is attributable to the measurement method rather than to the constructs the measures represent” (Podsakoff et al., 2003). This study addresses the problem of CMV using three methods. First, respondents are assured of the following: their anonymity and confidentiality; there being no right or wrong answers; and their encouragement to answer as

Table 2. Construct Loading and Model Fits

Constructs & Items	Lambda Loading	AVE	CR	Construct & Items	Lambda Loading	AVE	CR
Organizational Performance				Reinvention Reform			
OP1	0.77			RR1	0.92		
OP2	0.87	0.71	0.91	RR2	0.95	0.84	0.95
OP3	0.85			RR3	0.95		
OP4	0.88			RR4	0.85		
Organizational Commitment				Public Interest			
OC1	0.84			PI1	0.78	0.73	0.84
OC2	0.81	0.72	0.89	PI2	0.92		
OC3	0.90						
Attraction to Policy Making				Self-Sacrifice			
PM1	0.76			SS1	0.84		
PM2	0.78	0.61	0.83	SS2	0.80		
PM3	0.81			SS3	0.87	0.69	0.92
Compassion				SS4	0.86		
CP1	0.79			SS5	0.77		
CP2	0.88	0.70	0.88				
CP3	0.83						

honestly as possible. Second, this study simultaneously adopts 6- and 10-points Likert scales in our measures to diminish method biases (see Podsakoff et al., 2003). This method should reduce method biases caused by commonalities in scale endpoints and anchor effects. Besides, this study also counterbalances the order of questions relating to different scales and constructs, making CMV less likely, as the respondent cannot then easily combine related items to cognitively “create” the correlation needed to produce a CMV-biased pattern of responses (Murray et al., 2005).

Third, we use Harman’s single-factor test to assert that our research is not pervasively affected by CMV. A Harman’s single factor tests to see whether the majority of the variance can be explained by a single factor. If CMV is an issue, a single factor will account for the majority of the variance in the model. This method loads all items from each of the constructs into an exploratory factor analysis to see whether one single factor emerges or whether one general factor accounts for a majority of the covariance among the measures. If not, the claim is that CMV is not a pervasive issue. The single factor accounts for only 27.22% of the

covariance among the measures, thus making it clear that CMV is not a pervasive issue in this study.

STATISTICAL ANALYSIS

Validity and Reliability Analysis

Confirmatory factor analysis (CFA) was utilized to assure the convergent validity of the latent factor. This procedure allows the coherent items to be highly convergent on the same latent factor (Jöreskog & Söbom, 1993). In this article, LISREL 8.54 was used for testing goodness of fit among the variables. According to the goodness-of-fit indicators of the study variables— $\chi^2/df = 3.88$, GFI = .99, NNFI = .98, PGFI = .76, RMSEA = .03—the models have acceptable goodness-of-fit indicators.

Notably, items’ absolute loading values λ constructed by the study were significantly larger than 0.50, thus above the level recommended by Hair et al. (1998), Bagozzi et al. (1991) and Fornell & Larcker (1981) indicating satisfactory convergent validity. Additionally, this study also examines the correlation coefficient matrix, because Messick

Table 3. The Square Root of AVE and Inter-Correlations

	Organi- zational Commit- ment	Policy Making	Public Interest	Rein- vention Reform	Self- Sacrifice	Organiza- tional Per- formance	Compas- sion	ASV	MSV	AVE
Organizational Commitment	(0.85)							0.09	0.20	0.72
Attraction to Policy Making	0.29	(0.78)						0.03	0.09	0.61
Public Interest	0.25	0.14	(0.85)					0.10	0.31	0.73
Reinvention Reform	0.29	0.17	0.18	(0.92)				0.05	0.08	0.84
Self-Sacrifice	0.28	0.16	0.56	0.20	(0.83)			0.13	0.31	0.69
Organizational Performance	0.45	0.15	0.17	0.28	0.18	(0.84)		0.07	0.20	0.71
Compassion	0.24	0.13	0.40	0.13	0.56	0.19	(0.84)	0.10	0.31	0.70

Note: The figures in the parentheses indicate the square root of AVE of the study constructs. MSV = Maximum Share Variance, ASV = Average Share Variance.

(1998) mentions that high correlation coefficients mean a lack of discriminant validity. In general, a correlation coefficient above 0.7 is considered to be highly correlated, and all construct coefficients' absolute values in this study were < 0.56, indicating that constructs have satisfactory discriminant validity. On the other side, all those constructs including OP, OC, RR, PM, PI, CP and SS were revised from scales used by previous experts and researchers many times. These experts had evaluated those constructs' items carefully to measure their defined content (Polit & Beck, 2006), that also justified constructs' content validity in this study.

The average variance extracted (AVE)¹ and composite reliability (CR)² are calculated in this study. The constructs' AVE ranges from 0.61-0.84 (>0.5) in this study, which is above the level recommended by Fornell & Larcker (1981). CR ranges from 0.83 to 0.95 (>0.7), which is, again, above the level recommended by Hair et al. (1998). The AVE and CR value reconfirms constructs' convergent validity and reliability. Finally, all constructs' square root of AVE

are greater than inter-construct correlations, ranging from 0.78 to 0.92, thus reconfirming satisfactory discriminant validity (Fornell & Larcker, 1981).

Descriptive Statistics and Inter-Correlations

Table 3 presents the square root of AVE and inter-correlations among study constructs. Two significant findings are notable. First, square roots of AVE are all greater than inter-construct correlations, suggesting that this study's constructs all have satisfactory discriminant validity. Secondly, all of the correlations among research constructs are in the predicted direction.

In summary, the correlations among independent variables and dependent variables are moderately low. However, none exceeds 0.56, indicating the absence of multicollinearity in this study (see Messick, 1998).

On the other side, discriminant validity is also confirmed where Maximum Shared Variance (MSV) and the Average Shared Variance (ASV) were both lower than the Average Variance Extracted (AVE) for all constructs (see Hair, et al., 2010). Table 3 shows that the ASV and MSV value are all lower than the Average Variance Extracted (AVE) for all constructs in the study.

¹ $AVE = (\sum \lambda)^2 / [(\sum \lambda)^2 + \sum \varepsilon_j]$

² $CR = \sum \lambda^2 / (\sum \lambda^2 + \sum \varepsilon_j)$

Table 4. Path Coefficients (Coefficients, STDEV, T-Values)

Path	Coefficients	Standard Deviation	T Statistics (Absolute Value)
Reinvention Reform -> Attraction to Policy Making	0.17***	0.03	6.02
Reinvention Reform -> Public Interest	0.18***	0.03	6.21
Reinvention Reform -> Self-Sacrifice	0.20***	0.03	7.18
Reinvention Reform -> Compassion	0.13***	0.03	4.78
Reinvention Reform -> Organizational Commitment	0.20***	0.03	7.46
Reinvention Reform -> Organizational Performance	0.16***	0.03	6.20
Attraction to Policy Making -> Organizational Commitment	0.22***	0.03	8.04
Public Interest -> Organizational Commitment	0.09***	0.03	2.98
Self-Sacrifice -> Organizational Commitment	0.10***	0.04	2.61
Compassion -> Organizational Commitment	0.09***	0.03	2.78
Organizational Commitment -> Organizational Performance	0.39***	0.03	13.91

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Hypotheses Testing

This study uses structural equation models (SEM) to test our proposed hypotheses. First, this study incorporates demographic variables, such as gender, supervisor, subordinate, educational attainment, and seniority into the SME model. The demographic variables are controlled for, prior to the path coefficients being calculated. Table 4 shows the results, including the path coefficients, the standard deviation, and the t-values (absolute value). Table 4 demonstrates that reinvention reform positively affects attraction to policy-making, commitment to the public interest, self-sacrifice, and compassion, where the path coefficients are 0.17, 0.18, 0.20, and 0.13, respectively, and all have p-values less than 0.01, meaning that there is support for H1a. This result dovetails with Naff and Crum (1999) and Moynihan and Pandey's (2007b) findings where reinvention reform has a positive impact on PSM.

The path coefficient between reinvention reform and organizational commitment is 0.20, with a p-value less than 0.01, suggesting evidence for H1b. These results fit with Mohd Noor and Othman (2012) and Oh and Park (2011) findings of a positive relationship between government reinvention and organizational commitment.

The path coefficient between reinvention reform and organizational commitment is 0.16, with a p-value less than 0.01, suggesting support for H1c. These results conform to Enders, de Boer and Weyer (2013) and Walker, Damanpour, and Devece's (2010) results—there is a positive relationship between government reinvention and organizational performance.

The path coefficients between PSM and organizational commitment are 0.22, 0.09, 0.10 and 0.09, with all p-values being less than 0.01, providing support for Hypothesis 2. These results echo the findings of Gould-Williams et al. (2014), Kim (2012), and Perry and Wise (1990) that PSM has a positive influence on organizational commitment.

The path coefficient between organizational commitment and organizational performance is 0.39, with a p-value less than 0.01, indicating that there is support for Hypothesis 3 and also providing further support for the findings of Houston (2008), Pandey and Stazyk (2008) and Vandenabeele (2009). Many studies regard PSM as a kind of prosocial behavior, which increases organizational performance by mediating organizational commitment. In this study, the mediated relationship is tested through the method suggested by Baron and Kenny (1986) and Sobel (1982).

Following this logic, PSM is the independent variable, organizational commitment is the mediation variable, and organizational performance is the dependent variable. After calculating the mediation effect, the 'a' coefficient is 0.08 ($p < 0.00$); the b coefficient is 0.42 ($p < 0.00$); the c coefficient is 0.23 ($p < 0.00$); and the c' coefficient is 0.20 ($p < 0.00$). These results confirm that organizational commitment partially mediates the relationship between PSM and organizational performance. In addition, we conduct a Sobel indirect effect test where ab coefficient is 0.03 and Z value is 5.77 ($p < 0.00$), indicating that there is an indirect effect. The 1000 sample bootstrap was used to test the indirect effects, while the 95% confidence interval (CI) was from 0.02 to 0.05, and it did not contain 0, indicating that the indirect relationship does exist, thus providing support for Hypothesis 4. That is, civil servants' organizational commitment mediates the relationship between PSM and organizational performance. If civil servant management can increase PSM, it can further enhance organizational performance through organizational commitment.

DISCUSSION AND CONCLUSION

This study provides support for the notion that reinvention reform positively affects attraction to policy-making, commitment to the public interest, self-sacrifice, and compassion. We also find that reinvention reform increases civil servants' PSM. The characteristics of centralization, red tape, complex organizational systems, and regulations result in a disconnect between civil servants and the organization, which prevent civil servants from maintaining PSM. Reinvention reform is considered to cultivate empowerment and participation mechanisms for civil servants, which in turn increases civil servants' PSM.

Some people believe that PSM and market-oriented administrative reforms are not necessarily compatible and that civil servants will resist reforms and cooperation, and even weaken PSM. However, this study shows that most civil servants support administrative reform and professionalism in public management, including relevant general roles and obligations of an efficient government, which

echoes the findings of Kearney et al. (2000) and Nalbandian (1999), respectively. If civil servants can consider administrative reform as an improvement in organizational efficiency and an important tool for improving citizen satisfaction, the reform will not negatively affect PSM. Rather, as a result of altruistic motivation, the reform might even strengthen their PSM, organizational commitment and organizational performance.

Second, attraction to policy-making, commitment to the public interest, self-sacrifice, and compassion all positively influence organizational commitment in the public sector. PSM is one kind of prosocial behavior which is considered to lead to beneficial outcomes to the organization. If public organizations can provide meaningful public services, civil servants' PSM can lead to greater organizational commitment.

Previous studies have shown that PSM is associated with organizational commitment (Kim, 2006; Xiaohua, 2008). However, these studies did not examine subdimensions. This study explored how the subdimensions of PSM affect organizational commitment and found a relationship to organizational commitment.

This study finds that civil servants' organizational commitment positively affects organizational performance, and organizational commitment mediates the relationship between PSM and organizational performance. Those civil servants who commit to a public organization have better job performance than those with lower organizational commitment.

PRACTICAL IMPLICATIONS

Government agencies can improve civil servants' public service motivation through administrative reform, which will further improve civil servants' organizational commitment. Civil servants' attraction to policy-making, commitment to the public interest, compassion, and self-sacrifice deserve to be strengthened in the public sector. In general, transformational leadership is based on job caring and further inspires civil servants to be attracted to

policy-making, commitment to the public interest, compassion, and self-sacrifice. The centralized design of traditional government agencies easily makes civil servants indifferent to their work and, in turn, reduce their organizational commitment.

When government agencies and supervisors can improve civil servants' altruistic behavior, then civil servants' organizational commitment is strengthened. This study confirms that PSM is an antecedent of organizational commitment. If civil servants can improve their attraction to policy making, commitment to public interest, compassion, and self-sacrifice on their job, their organizational commitment will increase. In addition to making reasonable administrative reforms, work education and training can be used to enhance civil servant's administrative ethics and citizen service orientation.

Improving civil servants' organizational commitment can increase their job performance. As we know, all the methods of transformational leadership, humanity management, decision-making participation, empowerment, and delegation can improve civil servants' organizational commitment, and ultimately improve their organizational performance.

LIMITATIONS AND FUTURE RESEARCH

This study uses probability sampling for their research samples, but it is still possible that the sample does not represent the population being studied, resulting in a "sample bias" or "selection bias". More large samples are needed, particularly in exploring the path relationships in different issue areas.

This study mainly explores the causal relationship between SEM construct, but SEM also faces many challenges. Bollen and Pearl (2013) argue that SEM has eight myths, including that SEMs are not equipped to handle nonlinear causal relationships and SEMs do not apply to experiments with randomized treatments. This study did not measure the possibility of nonlinear causal relationships, nor did it conduct experimental designs in randomized treatments. Future research can continue to use experimental design methods to detect

linear and nonlinear relationships, while combining theory with alternative data for further exploration.

Some scholars believe that experimental design is the only way to test for causal relationships, but there are other scholars who believe there are the other ways to detect causality. In a traditional regression model, the causal relationship can be established between the independent variable and the dependent variable. This study methodologically advances scholarship by exploring the 'path' relationship, which, we argue, is more meaningful than a 'causal' relationship. Ultimately, SEM is an appropriate method to examine these theoretical relationships, which should be used in future scholarship.

Bozeman and Su (2015) use Gerring's concept to evaluate 23 PSM definitions between 1990 and 2012, and they find that PSM is unable to distinguish among concepts of motivation, beliefs, values, attitudes, and behaviors. Moreover, PSM is often confused with those concepts of "prosocial motivation" and "altruistic motivation" (Chen & Xu, 2016). Perry (1996) first establishes four PSM measurement constructs, which include attraction to policy-making, commitment to the public interest, compassion, and self-sacrifice. Even though Chen and Xu (2016) identify that PSM is getting more and more attention in the Chinese community, they argue that future research may abandon Perry's (1996) definition and measurement and, thus, return to "the motivation to drive public service behavior." Therefore, future research should refer to "Self Determination Theory" to develop more appropriate measurements.

PSM may have biases due to cultural or personal factors, especially cultural differences around different countries, and we would need to collect more data and conduct more research to examine such differences. This study is based on quantitative methods, and there is room for more qualitative research in the future to supplement our research results with more contextualized knowledge. Therefore, a range of qualitative methods could be adopted to improve the depth of research in this field.

ACKNOWLEDGEMENT

The authors thank the National Science Council for project funding, grant NSC100-2410-H-004-097-MY2. We also like to thank the working team behind the Taiwan Government Bureaucrats Survey (TGBS) for producing the TGBS II dataset. Please acquire the TGBS I & II dataset from Survey Research Data Archive at the Academia Sinica from the following website: https://srda.sinica.edu.tw/browsingbydatatype_result.php?category=surveymethod&type=1&csid=24.

REFERENCES

- Ahmad, H., Ahmad, K., & Shah, I. A. (2010). Relationship between job satisfaction, job performance attitude towards work and organizational commitment. *European Journal of Social Sciences, 18*(2), 257–267.
- Ali, I., Rehman, K. U., Ali, S. I., Yousaf, J., & Zia, M. (2010). Corporate social responsibility influences, employee commitment and organizational performance. *African Journal of Business Management, 4*(12), 2796–2801.
- Alonso, P., & Lewis, G. B. (2001). Public service motivation and job performance: Evidence from the federal sector. *The American Review of Public Administration, 31*(4), 363–380.
- Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly, 42*–458.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173.
- Bollen, K. A. and J. Pearl (2013). Eight myths about causality and structural equation models, In S.L. Morgan (Ed.), *Handbook of causal analysis for social research*, Chapter 15 (pp.301-328), Springer.
- Bozeman, B. (2007). *Public values and public interest: Counterbalancing economic individualism*. Georgetown University Press.
- Bright, L. (2008). Does public service motivation really make a difference on the job satisfaction and turnover intentions of public employees?. *The American Review of Public Administration, 38*(2), 149–166.
- Camilleri, E. (2006). Towards developing an organisational commitment-public service motivation model for the Maltese public service employees. *Public Policy and Administration, 21*(1), 63–83.
- Castaing, S. (2006). The effects of psychological contract fulfilment and public service motivation on organizational commitment in the French civil service. *Public Policy and Administration, 21*(1), 84–98.
- Cerese, F. P., & Farinella, D. (2006, August). Explorations in public service motivation: The case of the Italian Revenue Agency. In *Annual Conference of the European Group of Public Administration, Milan, Italy*.
- Chen, C. & Xu, C. (2016). Public service motivation: Review, reflection, and reorientation. *Journal of Public Administration, 51*, 69-96.
- Coursey, D. H., Perry, J. L., Brudney, J. L., & Littlepage, L. (2008). Psychometric verification of Perry's public service motivation instrument: Results for volunteer exemplars. *Review of Public Personnel Administration, 28*(1), 79–90.
- Denhardt, R. B. & Denhardt, J. V. (2008). *Public administration: An action orientation*. Thomson Wadsworth.
- Donahue, J. D. (2008). *The warping of government work*. Harvard University Press.
- Dunleavy, P., & Hood, C. (1994). From old public administration to new public management. *Public Money & Management, 14*(3), 9–16.
- Enders, J., De Boer, H., & Weyer, E. (2013). Regulatory autonomy and performance: The reform of higher education re-visited. *Higher Education, 65*(1), 5–23.
- Feeney, M. K., & DeHart-Davis, L. (2009). Bureaucracy and public employee behavior: A case of local government. *Review of Public Personnel Administration, 29*(4), 311–326.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal*

- of *Marketing Research*, 18, 39-51.
- Frank, S. A., & Lewis, G. B. (2004). Government employees: working hard or hardly working?. *The American Review of Public Administration*, 34(1), 36-51.
- Frederickson, H. G. (1996). Comparing the reinventing government movement with the new public administration. *Public Administration Review*, 56(3), 263-70.
- Fu, K. J., & Chang, T. W. (2019). Toward an integrative framework of dynamic capabilities in innovation-based public services: Empirical analysis in Taiwan. *Chinese Public Administration Review*, 10(1), 60-76.
- Gore, A. (1993). *From red tape to results: Creating a government that works better and costs less. Report of the National Performance Review*. Washington, DC: US Government Printing Office.
- Gould-Williams, J. S., Bottomley, P., Redman, T. O. M., Snape, E. D., Bishop, D. J., Limpanitgul, T., & Mostafa, A. M. S. (2014). Civic duty and employee outcomes: Do high commitment human resource practices and work overload matter?. *Public Administration*, 92(4), 937-953.
- Grant, A. M., Dutton, J. E., & Rosso, B. D. (2008). Giving commitment: Employee support programs and the prosocial sensemaking process. *Academy of Management Journal*, 51(5), 898-918.
- Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis with reading*. Prentice-Hall.
- Hair, J. F., Black, W. C., Babin, B., & Anderson, R. (2010). *Multivariate data analysis* (7th Ed.). Prentice-Hall.
- Heinrich, C. J. (2003). Measuring Public Sector Performance and Effectiveness, In B.G. Peters and J. Pierre (Eds.), *Handbook of Public Administration* (pp. 25-37). Sage.
- Hondeghem, A., & Perry, J. L. (2009). EGPA symposium on public service motivation and performance: Introduction. *International Review of Administrative Sciences*, 75(1), 5-9.
- Houston, D. J. (2000). Public-service motivation: A multivariate test. *Journal of Public Administration Research and Theory*, 10(4), 713-28.
- Houston, D. J. (2006). "Walking the walk" of public service motivation: Public employees and charitable gifts of time, blood, and money. *Journal of Public Administration Research and Theory*, 16(1), 67-86.
- Houston, D. J. (2008). Behavior in the public square, in J. L. Perry & A. Hondeghem (Eds.), *Motivation in public management: The call of public service* (pp. 177-99). Oxford University Press.
- Houston, D. J. (2009). Motivating knights or knaves? Moving beyond performance-related pay for the public sector. *Public Administration Review*, 69(1), 43-57.
- Hsieh, J. Y., & Huang, H. J. (2019). Conflux or conflict: How public managers and public employees see civil service promotion. *Chinese Public Administration Review*, 10(1), 28-45.
- Huang, W. L. (2019). The impact of extrinsic rewards and public service motivation on public employees' work performance: Does seniority matter?. *Chinese Public Administration Review*, 10(1), 12-27.
- Hui, C., & Lee, C. (2000). Moderating effects of organization-based self-esteem on organizational uncertainty: Employee response relationships. *Journal of Management*, 26(2), 215-232.
- Joreskog, K.G. & Sorbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Scientific Software International.
- Jurkiewicz, C. L., Massey Jr, T. K., & Brown, R. G. (1998). Motivation in public and private organizations: A comparative study. *Public Productivity and Management Review*, 21(3), 230-250.
- Kearney, R. C., Feldman, B. M., & Scavo, C. P. (2000). Reinventing government: City manager attitudes and actions. *Public Administration Review*, 60(6), 535-548.
- Kettl, D. F. (2002). *The transformation of governance: Public administration for the twenty-first century*. Johns Hopkins University Press.
- Kim, S. (2005). Individual-level factors and organizational performance in government organizations. *Journal of Public Administration Research and Theory*, 15(2), 245-261.
- Kim, S. (2006). Public service motivation and organizational citizenship behavior in Korea. *International Journal of Manpower*, 27(8), 722-

- 740.
- Kim, S. (2011). Testing a revised measure of public service motivation: Reflective versus formative specification. *Journal of Public Administration Research and Theory, 21*(3), 521–546.
- Kim, S. (2012). Does person-organization fit matter in the public-sector? Testing the mediating effect of person-organization fit in the relationship between public service motivation and work attitudes. *Public Administration Review, 72*(6), 830–40.
- Kim, S. (2005). Individual-level factors and organizational performance in government organizations. *Journal of Public Administration Research and Theory, 15*(2), 245–261.
- Messick, S. (1998). Test validity: A matter of consequence. *Social Indicators Research, 45*, 35–44.
- Meyer, J., & Allen, N. (1997). *Commitment in the workplace: Theory, research, and application*. Sage Publications.
- Moe, R.C. (1994). The "reinventing government" exercise: Misinterpreting the problem, misjudging the consequences. *Public Administration Review, 54*(2), 111–22.
- Mohd Noor, I. H., & Othman, R. (2012). Budgetary participation: How it affects performance and commitment. *Accountancy Business and the Public Interest, 53–73*.
- Moynihan, D. P. (2008). The normative model in decline? Public service motivation in the age of governance, In J. L. Perry & A. Hondeghem (Eds.), *Motivation in public management: The call of public service* (pp. 247–67). Oxford University Press.
- Moynihan, D. P., & Pandey, S. K. (2007). Finding workable levers over work motivation: Comparing job satisfaction, job involvement, and organizational commitment. *Administration & Society, 39*(7), 803–832.
- Moynihan, D. P., & Pandey, S. K. (2007). The role of organizations in fostering public service motivation. *Public Administration Review, 67*(1), 40–53.
- Murray, J. Y., Kotabe, M., & Zhou, J. N. (2005). Strategic alliance-based sourcing and market performance: evidence from foreign firms operating in China. *Journal of International Business Studies, 36*(2), 187–208.
- Naff, K. C., & Crum, J. (1999). Working for America: Does public service motivation make a difference?. *Review of Public Personal Administration, 19*(4), 5–15.
- Nalbandian, J. (1999). Facilitating community, enabling democracy: New roles for local government managers. *Public Administration Review, 59*(3), 187–97.
- Niazi, A. S. (2011). Training and development strategy and its role in organizational performance. *Journal of Public Administration and Governance, 1*(2), 42–57.
- Oh, Y., & Park, J. (2011). New link between administrative reforms and job attitude: The role of interpersonal trust in peers as a mediator on organizational commitment. *International Review of Public Administration, 16*(3), 65–87.
- Osborne, D. (1993). Reinventing government. *Public Productivity & Management Review, 16*(4), 349–56.
- Osborne, D. & Gaebler, T. (1992). *Reinventing government: How the entrepreneurial spirit is transforming the public sector*. Addison-Wesley.
- Paarlberg, L. E., Perry, J. L. & Hondeghem, A. (2008). From theory to practice: Strategies for applying public service motivation, In J. L. Perry & A. Hondeghem (Eds.), *Motivation in public management: The call of public service* (pp. 268–93). Oxford University Press.
- Pandey, S. K. & Stazyk, E. C. (2008). Antecedents and correlates of public service motivation, In J. L. Perry & A. Hondeghem (Eds.), *Motivation in public management: The call of public service* (pp. 101–17). Oxford University Press.
- Park, S. M., & Rainey, H. G. (2008). Leadership and public service motivation in US federal agencies.. *International Public Management Journal, 11*(1), 109–42.
- Perry, J. L., Brudney, J. L., Coursey, D., & Littlepage, L. (2008). What drives morally committed citizens? A study of the antecedents of public service motivation. *Public Administration Review, 68*(3), 445–458.
- Perry, J.L. (1996). Measuring public service motivation: An assessment of construct reliability

- and validity. *Journal of Public Administration Research and Theory*, 6(1), 5–22.
- Perry, J. L. & Hondeghem, A. (2008a). Editors' introduction, In J. L. Perry & A. Hondeghem (Eds.), *Motivation in public management: The call of public service* (pp. 1–14). Oxford University Press.
- Perry, J. L. & Hondeghem, A. (2008b). Directions for future theory and research, In J. L. Perry & A. Hondeghem (Eds.), *Motivation in public management: The call of public service* (pp. 294–313). Oxford University Press.
- Perry, J. L., & Wise, L. R. (1990). The motivational bases of public service. *Public Administration Review*, 50(3), 367–73.
- Perry, J. L. & Vandenabeele, W. (2008). Behavioral dynamics: Institutions, identities, and self-regulation, In J. L. Perry & A. Hondeghem (Eds.), *Motivation in public management: The call of public service* (pp. 56–79). Oxford University Press.
- Perry, J. L., Engbers, T. A., & Jun, S. Y. (2009). Back to the future? Performance-related pay, empirical research, and the perils of persistence. *Public Administration Review*, 69(1), 39–51.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903.
- Polit, D. F., & Beck, C. T. (2006). The content validity index: are you sure you know what's being reported? Critique and recommendations. *Research in Nursing & Health*, 29(5), 489–497.
- Islam, R., & Ismail, A. Z. H. (2008). Employee motivation: a Malaysian perspective. *International Journal of Commerce and Management*, 18(4), 344–362.
- Ricketta, M. (2002). Attitudinal organizational commitment and job performance: a meta-analysis. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 23(3), 257–266.
- Ritz, A. (2009). Public service motivation and organizational performance in Swiss federal government. *International Review of Administrative Sciences*, 75(1), 53–78.
- Shakya, U. R. (2009). Ethics in Nepalese civil services sector: How does it matter? *Administration and Management Review*, 21(2), 89–107.
- Shamir, B. (1991). Meaning, self and motivation in organizations. *Organization Studies*, 12(3), 405–24.
- Smeenk, S., Teelken, C., Eisinga, R., & Doorewaard, H. (2009). Managerialism, organizational commitment, and quality of job performances among European university employees. *Research in Higher Education*, 50(6), 589–607.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models, in S. Leinhardt (Ed.), *Sociological methodology* (pp. 290–312). Jossey-Bass.
- Taylor, J. (2008). Organizational influences, public service motivation and work outcomes: An Australian study. *International Public Management Journal*, 11(1), 67–88.
- Vandenabeele, W. (2009). The mediating effect of job satisfaction and organizational commitment on self-reported performance: more robust evidence of the PSM—performance relationship. *International Review of Administrative Sciences*, 75(1), 11–34.
- Walker, R. M., & Boyne, G. A. (2006). Public management reform and organizational performance: An empirical assessment of the UK Labour government's public service improvement strategy. *Journal of Policy Analysis and Management*, 25(2), 371–393.
- Walker, R. M., Damanpour, F., & Devece, C. A. (2011). Management innovation and organizational performance: The mediating effect of performance management. *Journal of Public Administration Research and Theory*, 21(2), 367–386.
- Wright, B. E. (2007). Public service and motivation: Does mission matter? *Public Administration Review*, 67(1), 54–64.
- Wright, B. E., & Pandey, S. K. (2008). Public service motivation and the assumption of person—Organization fit: Testing the mediating effect of value congruence. *Administration & Society*, 40(5), 502–521.
- Xiaohua, L. (2008). An empirical study on public

service motivation and the performance of government employee in China. *Canadian Social Science*, 4(2), 18–28.

Yang, K., & Pandey, S. K. (2009). How do perceived political environment and administrative reform affect employee commitment?. *Journal of Public Administration Research and Theory*, 19(2), 335–360.

ABOUT THE AUTHORS

Hsiang Te Liu is an associate professor in the Department of Public Affairs, Ming Chuan University. His research interests include research methodology, human resource management, organizational behavior, opinion survey. E-mail: lback@mail.mcu.edu.tw

Don-Yun Chen is a full professor in the Department of Public Administration, and a research fellow in Taiwan Institute for Governance and Communication Research. He is leading a multi-year project called Taiwan Government Bureaucrats Survey (TGBS). His research interests include democratic governance, bureaucratic politics, e-governance, public policy analysis & management, and health policy. E-mail: donc@nccu.edu.tw

APPENDIX: QUESTIONNAIRE ITEM

Reinvention Reform Perception

1. I think that Executive Yuan's reform can achieve the goal of administrative reorganization.
2. I think that Executive Yuan's reform can achieve the goal of elasticizing the administrative organization.
3. I think that Executive Yuan's reform can achieve the goal of improving effectiveness.
4. Overall, how much you support for the organizational changes in this administrative reorganization?

Organizational Commitment

1. The institutions I serve are usually able to achieve the organizational goals.
2. The institutions I serve are usually able to solve citizen's problems.

3. The institutions I serve will not treat the citizen differently depending on the personal background.

Organizational Performance

1. What is your organizational performance in the past two years?
2. What is the performance of your colleagues in the past two years?
3. What is the performance of the supervisor in the past two years?
4. Overall, what is the performance of the organization you have served in the past two years?

Public Service Motivation

Attraction to Policy Making

1. "Politics" is a dirty word for me. (R)
2. I don't care about every behavior of politicians. (R)
3. The exchange of opinions and mutual compromise in the policy process is meaningless to me. (R)

Commitment to Public Interest

1. I will make a selfless contribution to the community in which I live.
2. Providing public services is a civil responsibility for me.

Self-Sacrifice

1. It is more meaningful to contribute to the people and society than to my personal career development.
2. I think that it is worthwhile to lose opportunities for promotion when I do those things beneficial to the public.
3. It is my responsibility to contribute to the public.
4. I think that "contributing to society" is more important than "taking it from society."

Compassion

1. When I see that a vulnerable person is victimized, I always feel unbearable.
2. I often observe that people are interdependent.
3. Many social welfare and social assistance programs are indispensable.