

This document is downloaded from DR-NTU, Nanyang Technological University Library, Singapore.

Title	Middle managers' upward roles in the public sector
Author(s)	Chen, Chung-An; Berman, Evan M.; Wang, Chun-Yuan
Citation	Chen, C.-A., Berman, E. M., & Wang, C.-Y. Middle managers' upward roles in the public sector. Administration & society, in press.
Date	2014
URL	<a href="http://hdl.handle.net/10220/24561">http://hdl.handle.net/10220/24561</a>
Rights	© 2014 The Authors. This is the author created version of a work that has been peer reviewed and accepted for publication by Administration & Society, SAGE Publications. It incorporates referee's comments but changes resulting from the publishing process, such as copyediting, structural formatting, may not be reflected in this document. The published version is available at: [ <a href="http://dx.doi.org/10.1177/0095399714546326">http://dx.doi.org/10.1177/0095399714546326</a> ].

# Administration & Society

## Middle Managers' Upward Roles in the Public Sector

Journal:	<i>Administration &amp; Society</i>
Manuscript ID:	A&S-14-0062.R1
Manuscript Type:	Original Article
Keywords:	middle managers, upward roles, synthesizing information, championing alternatives
Abstract:	While previous public administration studies focus on middle managers' roles in implementation, this study contributes to the literature by emphasizing middle managers' other roles, specifically, upward roles that concern (i) championing alternatives and (ii) synthesizing information. We examine whether middle managers are more involved in synthesizing information than championing alternatives, and test multiple levers that increase these roles at the individual level, organization level, and inter-organizational level. This study finds that job security, connections with stakeholders and autonomous motivation are among the most important predictors. This study calls for taking a broader perspective on middle managers' contributions to public organizations.

SCHOLARONE™  
Manuscripts

view

### Introduction: A Need for Middle Management Research in Public Administration

Research on middle managers in public administration has been decidedly sparse and mixed in recent decades. The term *middle management* refers to managers who typically head a function, team, or office, and supervise day-to-day and other operations; they are located below top managers and, in large organizations, typically distinct from first-tier supervisors (Dutton & Ashford, 1993; Janto, 2004; Varma, 2012; Wooldridge, Schmid, & Floyd, 2008).<sup>1</sup> Public administration theory has traditionally regarded implementation as the core of middle management activity, but by the 1990s middle management had become seen, in public and business administration alike, as a source of major bureaucratic dysfunction that stifles change (Stark, 2002). In a review, Huy (2001) summarizes the negative comments:

“The very phrase ‘middle managers’ evokes mediocrity, a person who stubbornly defends the status quo because he’s too unimaginative to dream up anything better—or, worse, someone who sabotages others’ attempts to change the organization for the better...Reengineering your business processes? Start by sweeping out the middle managers...Until very recently, anyone who spent time reading about management practices...might have concluded that middle managers are doomed to extinction or should be.” (p.73)

Such assessments are readily found in a vast management literature, including New Public Management (NPM), that advocates delayering, downsizing, restructuring, and reengineering organizations, seeking to flatten organizational hierarchies and reduce middle management. Predictions about the future of middle management were profoundly pessimistic in the late 1990s in both the public administration and business management literature (Thomas & Dunkerley, 1999; Thomas & Linstead, 2002).

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40

However, during this period a few researchers also noted benefits and contributions by middle managers (see Wooldridge et al., 2008 for an overview), often building on a slim body of earlier work about middle managers' contributions to innovation (Kanter, 1982; Quinn, 1985; Schilit & Locke, 1982). In public administration, Borins (2000) writes that "...a surprising result in (our) sample is that the most frequent initiators of innovations were not politicians or even agency heads like Rickover, Moses, or Hoover, but career public servants below the agency-head level.... middle managers were the most frequent initiators," and Morgan and his colleagues (1996) note that "...the development of public policy responses to issues of the day is another major component of a middle-manager's work." More recently, Diamond (2011) discusses the role of middle managers in libraries providing program leadership and managing change, and Bowman and Knox (2008) show middle managers taking leadership strengthening ethics in their organizations. Although these studies are disconnected, when taken together, they suggest that neither traditional theory nor NPM can fully capture the roles and benefits of middle managers beyond implementation, emphasizing leadership and policy contributions. As Currie (2000) notes, "there is a gap in the management literature about the role of middle managers in specific contexts, particularly in the public sector."

41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

This study contributes to developing a broader and more realistic assessment of middle managers' roles that benefit public organizations. It focuses on roles that contribute to decision-making in public organizations, specifically, (i) championing new alternatives as the persuasive communication to strategic options to upper management and (ii) synthesizing information as evaluating/blending information and presenting it to top managers, a precursor to championing new alternatives (Floyd & Wooldridge, 1992, 1994). This study is consistent with business management research showing that middle managers' jobs have grown in job content, such as

1  
2  
3 profit making (Mair, 2005), strategic change and duty reframing (Burgelman, 1994; Conway &  
4  
5 Monks, 2011; Sillince & Mueller, 2007), and international collaboration (Boyett & Currie, 2004).  
6  
7  
8 In short, middle managers are seen to add value to strategy formulation (Wooldridge et al., 2008),  
9  
10 but systematic studies about their contributions is much lacking in public administration.  
11

### 12 **Research Foci and Questions: The Upward Roles**

13  
14  
15 Upward roles concern influencing important decisions of organizations. Traditionally,  
16  
17 upward roles have often focused on lower managers seeking to influence decisions taken by  
18  
19 senior managers (e.g., by advising and providing information), but acting with initiative and  
20  
21 foresight is increasingly part of middle manager jobs, albeit with oversight and accountability to  
22  
23 senior managers and elected officials (Olshfski, 2008; Wooldridge et al., 2008).<sup>2</sup>  
24  
25  
26

27  
28 The complexity of organizational environments and programs is a fundamental driver of  
29  
30 middle managers' upward roles, and this is even more so in public organizations. First, public  
31  
32 organizations often suffer from confounding demands and incomplete information, due to a large  
33  
34 number of external and internal actors participating in policy processes, sometimes leading to  
35  
36 information overload at the top (Rainey, 2009). Middle managers at the organizational center of  
37  
38 information influx further leadership at the strategic apex by accessing, critically examining,  
39  
40 filtering, and interpreting such information and, sometimes, helping actors reach consensus  
41  
42 (Nonaka & Takeuchi, 1995). Growing demands on senior managers and limitations of political  
43  
44 decision-making further constrain senior managers' capacity, and lead to calls for lower  
45  
46 managers to prepare decisions and take leadership in assessment (information synthesis) and  
47  
48 decision-making processes.  
49  
50  
51

52  
53 Second, public organizations, especially federal/central governments, are generally larger  
54  
55 in size than private organizations (Light, 1999) and have longer command chains in sometimes  
56  
57  
58  
59  
60

1  
2  
3 huge hierarchical systems. That is, the strategic apex is even further away from the frontline,  
4  
5 creating more opportunities for principal-agent problems and inadequate (and distorted or  
6  
7 ‘twisted’) information exchanges (Waterman & Meier, 1998). Middle managers help ensure that  
8  
9 objective information from operations and stakeholders are adequately and accurately considered  
10  
11 in policy-making. Finally, government agencies are expected to give due weight to political  
12  
13 considerations in their interactions with elected officials. Strategies and policies initiated by the  
14  
15 public sector strategic apex can be ‘correct’ politically but short on professional information and  
16  
17 judgment. Middle managers in the public sector are thus expected to be the balance wheel, being  
18  
19 participative and even proactive in a policy making process in order to ensure professionalism in  
20  
21 political decisions.  
22  
23  
24  
25  
26

27 This study centers on two upward activities, namely, synthesizing information and  
28  
29 championing new alternatives (Floyd & Wooldridge, 1992). We consider information synthesis  
30  
31 as a (relatively) passive upward activity, and championing initiatives as an example of (more)  
32  
33 active upward activity. Passive roles are those that involve relatively little activity and  
34  
35 responsibility, whereas active roles are associated with greater involvement and contribution,  
36  
37 including leadership about goals that require considerable effort and responsibility. Synthesizing  
38  
39 information is not completely passive as it may include stakeholder engagement. Though active  
40  
41 upward roles might not always be called for, extensive differentials (or, gaps) between  
42  
43 championing initiatives and synthesizing information might indicate barriers of organizational or  
44  
45 other nature worth further exploration. In short, this study thus addresses the following two  
46  
47 research questions:  
48  
49  
50  
51

- 52 • How much are middle managers in public organizations involved in their upward roles,  
53  
54 and what fosters their involvement in these upward functions?  
55  
56  
57  
58  
59  
60

- Are there differences between engagement in synthesizing information and championing initiatives and, if so, what factors help reduce the differences?

The following sections first develop hypotheses regarding determinants of middle managers' involvement in upward roles, and then test these hypotheses. The findings of this study open a new window for understanding middle management in the public sector.

### Hypotheses

We first deal with the second research question, the championing-synthesizing differential, because antecedents of middle managers' involvement in upward roles may also be predictive of the championing-synthesizing differential (or, gap). We hypothesize that public middle managers are more involved in synthesizing information than in championing new alternatives, for three theoretical reasons. First, championing new alternatives may involve greater risk than the activity of synthesizing information; the former involves a commitment to innovation or goals which, indeed, has a higher risk of failure or not being fully realized (Ghadim, Pannell, & Burton, 2005). Second, championing new alternatives requires a propensity for innovation and change seeking that is neither omnipresent in organizations, nor always pursued through incentives, whereas synthesizing information is far more common to middle manager roles and job descriptions, and surely within the tasks that are commonly expected. Studies show that public sector organizations are often characterized by asymmetric incentives that punish unsuccessful innovations (Borins, 2001), and pervasive red tape and bureaucratic control further impede middle managers' risk taking (Chen & Bozeman, 2012). Third, normatively, some authors question the appropriateness of the role of bureaucratic entrepreneurs in championing alternatives. They claim that bureaucratic entrepreneurship impinges upon basic democratic values and public servants' accountability, despite its

1  
2  
3 contribution to innovative problem solving (Mack, Green, & Vedlitz, 2008). Thus, middle  
4  
5 managers may take a more conservative stance to championing alternatives.  
6  
7

8 While empirical support underlying the above theoretical arguments is ample, studies  
9  
10 addressing our hypothesis are very few. In the business literature, some studies show little  
11  
12 difference of middle managers' involvement in these two different roles (Floyd & Wooldridge,  
13  
14 1992), partly because those who are involved in championing alternatives are most likely to be  
15  
16 responsible for information synthesis. However, other evidence indicates that championing  
17  
18 alternatives is less prevalent (Ahearne, Lam, & Kraus, 2014). No prior research in public  
19  
20 administration research has empirically tested this proposition, though studies find that  
21  
22 championing new initiatives is often not easy in the public sector (Currie, 2006). Hence,  
23  
24  
25

26  
27 *H1: In the public sector, championing new alternatives is less prevalent than*  
28  
29 *synthesizing information among middle managers.*  
30  
31

32 Though public administration studies of middle managers upward activity are lacking,  
33  
34 studies in management research have identified a range of organizational factors whose  
35  
36 relevance to public organizations is examined below. Typical factors include managerial support  
37  
38 (Chuang, Jason, & Morgan, 2011; Hornsby, Kuratko, & Zahra, 2002), an open culture that  
39  
40 tolerates failure (Ashford, Rothbard, Piderit, & Dutton, 1998; Dutton, Ashford, O'Neill, Hayes, &  
41  
42 Wierba, 1997), high autonomy (Carney, 2004; Chuang et al., 2011), financial reward (De Clercq,  
43  
44 Wierba, 1997), high autonomy (Carney, 2004; Chuang et al., 2011), financial reward (De Clercq,  
45  
46 Castañer, & Belausteguigoitia, 2011; Hornsby et al., 2002) and abundant resource (Hornsby et al.,  
47  
48 2002; Kuratko, Ireland, Covin, & Hornsby, 2005). However, we are reminded that  
49  
50 organizational behaviors are not only determined by organizational factors, but also by  
51  
52 individual characteristics as well as connections with external actors. In this study, we examine  
53  
54 the influences of organizational practices, external connections, and individual motivations.  
55  
56  
57  
58  
59  
60



### Organizational Practices

Our first antecedent is the possible impact of ‘high performance’ practices in public organizations on middle managers’ upward activity. Expecting managers to increase performance and responsiveness through increased empowerment and accountability may invoke suggestions for policy and program improvements from middle managers that involve synthesizing information (‘making the case’) and championing alternatives. It is well-established that high performance’ practices typically involve an open organizational atmosphere, top management’s trust in subordinates, and rewards for innovative ideas, and that research in business supports that these propositions specifically for middle managers’ upward behavior (De Clercq et al., 2011; Kuratko et al., 2005), as we reviewed in an earlier section. While corresponding studies in public administration are lacking for middle managers, we expect similar findings based on performance management studies in public administration. Hence,

*H2: High performance-related practices are positively associated with public middle managers’ upward activities.*

Merit-based hiring is our second focus into organizational practices. Our logic is that well-qualified employees, including middle managers, are more likely to be active in performing upward activities. Light (2008) in a study of federal government finds that the competence of mid- and lower-level employees is a predictor of (perceived) workplace performance. Berman and his colleagues (Berman et al., 2013) also note that having unmotivated and poor quality staff are barriers to managerial initiative-taking, and management studies show top management initiatives faltering for lack of subordinate motivation and skills (Ghoshal & Bartlett, 1994; Ogbonna & Harris, 2002). By contrast, studies of high-performance organizations and transformational activity often find that

1  
2  
3 these occur in the presence of executive leadership and a significant number of well-  
4  
5 qualified, well-motivated and high performing staff. This study examines the impact of  
6  
7 merit-based recruitment practices (e.g., ability to hire well-qualified candidates,  
8  
9 upholding merit-principles in hiring, etc.) while controlling for the effect of ‘high  
10  
11 performance’ practices, discussed above.  
12  
13

14  
15 *H3: Merit-based recruitment is positively associated with public middle managers’*  
16  
17 *upward activities.*  
18  
19

20 Middle managers’ synthesized information may be criticized, and alternatives that they  
21  
22 champion may be rejected. This study hypothesizes that upward activity is positively associated  
23  
24 with perceptions of job security because job security helps managers and organizations protect  
25  
26 against harsh, personalized consequences of negative assessments as well as strategic behavior  
27  
28 by consequential actors against bureaucratic championing of new initiatives. Theoretically,  
29  
30 while job tenure does not reduce the risk of failure mentioned in H1 above, it can protect against  
31  
32 some of the harsher consequences of failure it, while also encouraging a bit more risk-taking that  
33  
34 championing new alternatives implies. Also, very high levels of job security can have a  
35  
36 downward effect on risk-taking as it attracts risk-averse people to the public sector. This does  
37  
38 not imply that organizations with very high levels of job security will have low risk-taking, as  
39  
40 that is also affected by other factors such as policies and management strategies to promote  
41  
42 innovation, of course. As championing alternatives involves more risk than synthesizing  
43  
44 information (see H1, above), job security may also explain any differentials (or, gap) between  
45  
46 these activities.  
47  
48  
49  
50  
51

52  
53 Actual perceptions of job security among civil servants are increasingly varied and, in  
54  
55 some instances, unknown. Administrative reforms worldwide have gradually reduced public  
56  
57  
58  
59  
60

1  
2  
3 servants' job security. A stark example is at-will employment along with radical personnel  
4 reform efforts in the states of Georgia and Florida (Bowman, 2002; Kellough & Nigro, 2006). In  
5  
6 Taiwan, where our survey data were collected, the newly passed Civil Servants Performance  
7  
8 Appraisal Act in 2010 mandates that C must be given to 3% of employees in each agency, and  
9  
10 two (2) consecutive Cs requires compulsory termination. While job security has thus diminished,  
11  
12 research of the influence of job security on upward activity is extremely scarce, with one study (a  
13  
14 qualitative case study) showing that managers are less likely to engage in 'issue selling' to top  
15  
16 management when they perceive that their job is insecure and they feel ignored and subservient  
17  
18 to its dictates (Currie & Procter, 2005).  
19  
20  
21  
22  
23

24  
25 Hypothesizing a positive relationship runs counter to much of the literature which,  
26  
27 focusing on the public sector at large, views job security in negative light. Job security is  
28  
29 associated with risk-averse people to the public sector who not only like rules, but also blindly  
30  
31 follow rules and create more rules to avoid mistakes (Bozeman & Rainey, 1988), and whose risk  
32  
33 aversion leads to a lack of innovation and creativity that is further reduced by red tape (Bozeman  
34  
35 & Kingsley, 1998; Moon & Bretschneider, 2002). Despite these studies, we examine that  
36  
37 perceptions of job security are positively associated with managers' upward behavior because  
38  
39 some measure of protection is indeed needed in the face of risk. Hence,  
40  
41  
42

43  
44 *H4: Job security is positively related with public middle managers' upward*  
45  
46 *activities.*  
47

#### 48 Stakeholder Connections

49  
50 Antecedents of public middle managers' upward influence are not limited to  
51  
52 organizational factors. We hypothesize that government's many stakeholder connections also  
53  
54 positively influence middle managers' upward missions. Recent public administration literature  
55  
56  
57  
58  
59  
60

1  
2  
3 on public-private (as well as public-nonprofit) partnerships, citizen participation, and networks  
4  
5 (Kapucu, 2006; Yang & Callahan, 2007) show that strong and ‘thick’ (i.e., multiple) connections  
6  
7 with external actors lay a solid foundation for increased information flow and improved  
8  
9 performance. Theoretically, strong stakeholder connections increase information flows that both  
10  
11 assist and require with synthesizing information and generating new initiatives (Chen, 2008).  
12  
13 Citizens make suggestions and their support at hearings to help justify proposals that are put  
14  
15 forward. They also help build coalitions of support and provide mutual help in issue selling.  
16  
17 The suggestions of stakeholders, such as community and business leaders, can be especially  
18  
19 important, as reflected in normative theories of urban politics and local elites (Logan & Molotch,  
20  
21 2007). As Dutton, Ashford, O’Neill, and Lawrence (2001) argue, involving others during  
22  
23 upward influence attempts can make an issue more visible, build a more powerful coalition, so as  
24  
25 to positively affect the scope and the impact of one’s efforts. Not surprisingly, recent empirical  
26  
27 evidence about middle managers’ strategic activity shows that boundary-spanning managers in  
28  
29 an inter-organizational scope are more strategically active than non-boundary-spanning  
30  
31 managers (Pappas & Wooldridge, 2007). Hence,  
32  
33  
34  
35  
36  
37

38  
39 *H5: Strengthening stakeholder connections is positively associated with public*  
40  
41 *middle managers’ upward activities.*  
42

#### 43 Individual Motivations

44  
45  
46 Researchers of occupational psychology often observe workers’ motivational structure by  
47  
48 asking reasons that determine one’s job selection or reasons that make one stay in the current job  
49  
50 (Gagné et al., 2010). According to self-determination theory (SDT) (Ryan & Deci, 2000),  
51  
52 autonomous motivation is comprised of both internal regulation and identified regulation.  
53  
54 Internal regulation refers to individuals choosing a job because they like the work content, they  
55  
56  
57  
58  
59  
60

1  
2  
3 think the work itself is interesting, or they are attracted to the public sector because of the  
4  
5 opportunity to serve people, whereas identified regulation means that job selection is  
6  
7 independent from the job nature but a result of identified value related to work such as career  
8  
9 development, prestige, or power (Tremblay, Blanchard, Taylor, Pelletier, & Villeneuve, 2009).  
10  
11 Empirical evidence shows that strong autonomous motivation leads to better individual  
12  
13 performance in various dimensions such as active coping in learning, dyadic adjustment and  
14  
15 positive comparison between married couples, caring, and hard working at the worksite (Blais,  
16  
17 Sabourin, Boucher, & Vallerand, 1990; Chen & Bozeman, 2013; Hayamizu, 1997; Pelletier et al.,  
18  
19 1995). We hypothesize that choosing a job due to autonomous reasons such as job content,  
20  
21 serving people, and prestige can result in public middle managers' better performance in playing  
22  
23 their upward roles. Hence,  
24  
25  
26  
27

28  
29 *H6: Public middle managers' autonomous motivation is positively associated*  
30  
31 *with their upward activities.*  
32  
33

### 34 **Methods**

35  
36 Between March 2011 and November 2011, an extensive survey was undertaken of public  
37  
38 managers in civilian ministries of Taiwan central government. Taiwan is a democratic and  
39  
40 advanced nation,<sup>3</sup> whose public agencies are well-known for their capacity for implementation,  
41  
42 and where issues of bureaucratic responsiveness and professionalism are similar to many other  
43  
44 democratic counties (Sun, 2008; Tan, 2000). The survey sample consists of senior employees,  
45  
46 supervisors, and middle managers from seven (7) civilian ministries.<sup>4</sup> The extensive survey of  
47  
48 173 items has 28 items that deal specifically with middle managers. The survey instrument has  
49  
50 two versions that differ only in that surveys completed by middle managers (Taiwan civil  
51  
52 service grades 10-11) assesses respondents' own (self-reported) upward activity, and the version  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 completed by senior employees and supervisors (grades 8-9) assesses their perception of middle  
4 managers' activity.<sup>5</sup> In this way, two different assessments of middle managers' upward activity  
5  
6 are obtained.  
7  
8  
9

10 Surveys were translated into Mandarin and checked for accuracy by professional  
11 translators, as were translated back into English. The Taiwan Central Personnel Administration  
12 provided a list of all 1,735 ministry-level, grade 8-11 employees, not associated with subordinate  
13 agencies and public enterprises, from which a sample of 1,153 was randomly selected to ensure  
14 an adequate final sample size. Surveys were distributed by mail. Respondents were instructed  
15 that participation was voluntary, and anonymity was further ensured by respondents placing  
16 completed surveys in an unmarked, sealed envelope that was collected by the researchers.  
17  
18  
19

20 Surveys were distributed with help from HR departments. A total of 644 usable surveys were  
21 received for a response rate of 55.9%.<sup>6</sup> Among respondents, 145 surveys were from middle  
22 managers and 499 by supervisors and senior employees. Across all respondents, 44.8% are  
23 female, the mean age is 39.7 years, and 61.8% have a graduate degree. On average, respondents  
24 worked 20.7 years in government and 11.8 years in their current agency, and 92.9% state that  
25 they are familiar or very familiar with the operation and performance of their work unit (97.2%  
26 among middle managers).  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42

43 Validity is an important study concern. Respondents are well-informed informants, often  
44 with direct knowledge and experience of matters under discussion, and appropriate and relevant  
45 to the research topic. By using the above two samples of employees/supervisors and middle  
46 managers, we guard against study conclusions that are solely based on self-reported results.<sup>7</sup> The  
47 two samples are used to provide differing and triangulating perspectives. As to the survey, we  
48 seek to minimize bias by wording questions in an objective and factual manner, and we ask  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 respondents about their own perceptions rather than those of others. We tried to reduce common  
4  
5 methods variance (CMV) by using narrowly worded items, using multiple samples, multiple sites  
6  
7 and multiple grades, and using a measure of culture (please refer to H6) to control for social  
8  
9 desirability bias. The Harman's single-factor test shows a variance of 37 percent, below the  
10  
11 acceptable maximum threshold of 50 per cent (Podsakoff & Organ, 1986; Taylor, 2013), and the  
12  
13 unmeasured latent methods factor test shows common method variance being 16 percent, also  
14  
15 suggesting that CMV is not a pervasive issue (Richardson, Simmering, & Sturman, 2009;  
16  
17 Williams, Cote, & Buckley, 1989).<sup>8</sup> However, all data have imperfections. The survey data are  
18  
19 respondents' perceptions of events and circumstances, and other respondents may have different  
20  
21 views. Reliable and comparable objective data on the study matter are unavailable. We  
22  
23 acknowledge that while supervisors and senior employees provide a more 'distanced'  
24  
25 perspective, they may not be fully informed of the entirety of middle managers' upward actions.  
26  
27 Finally, sample bias is examined by comparing responses of the different categories of  
28  
29 respondents, but we find no evidence of that based on gender or age (controlled for grade).  
30  
31 While a few differences exist, they are relatively minor which do not significantly affect our  
32  
33 results.  
34  
35  
36  
37  
38  
39

#### 40 41 Variables

42  
43 The two major (key) dependent variables are synthesizing information and championing  
44  
45 new alternatives. Each is measured using four ordinal items for each (1 = strongly disagree; 5 =  
46  
47 strongly agree). We capture synthesizing information by asking respondents whether middle  
48  
49 managers analyze existing policies, synthesize internal, external, and bottom-level information  
50  
51 into integrated understandings, and present them to the upper-level managers (Cronbach's alpha  
52  
53 = .90). Regarding championing new alternatives, we ask respondents whether middle managers  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 try to make existing programs better, propose new programs, and lead in developing new  
4  
5 programs (Cronbach's alpha = .94). Although generic management scholars indicate that  
6  
7 synthesizing information and championing alternatives are two distinctive constructs (Floyd &  
8  
9 Wooldridge, 1992), the synthesizing-championing distinction has never been examined with  
10  
11 public sector data and new items employed in this study.<sup>9</sup> Therefore, we investigate whether  
12  
13 synthesizing information and championing alternatives are conceptually and operationally  
14  
15 independent using exploratory factor analysis (EFA).<sup>10</sup> The results in Table 1 show that  
16  
17 synthesizing and championing are two independent constructs, indeed.  
18  
19

20  
21  
22 [Insert Table 1 Here]  
23

24  
25 There are five major independent variables in the present study. Perception of job  
26  
27 security is measured with only one ordinal item, asking respondents whether job security in the  
28  
29 current organization is satisfactory (1 = strongly disagree; 7 = strongly agree). High  
30  
31 performance practices are measured through an index of three ordinal items (1 = strongly  
32  
33 disagree; 7 = strongly agree) asking respondents whether organizations have an open  
34  
35 organizational atmosphere, reward innovative ideas, and whether top management trusts  
36  
37 subordinates (Cronbach's alpha = .84). Merit-based recruitment is measured by an index of  
38  
39 multiple ordinal items as well (1 = strongly disagree; 7 = strongly agree), asking whether merit  
40  
41 principals and favoritism are present in hiring, whether the hiring process is open, and whether  
42  
43 qualification standards are required in hiring (Cronbach's alpha = .72). Regarding stakeholder  
44  
45 connections, we use four ordinal items (1 = strongly disagree; 7 = strongly agree) asking the  
46  
47 extent of customer orientation, meetings with clients and citizens, public-private partnerships,  
48  
49 and the support from citizens as well as elected officials (Cronbach's alpha = .70). We measure  
50  
51 middle managers' autonomous motivation through three ordinal items asking respondents how  
52  
53  
54  
55  
56  
57  
58  
59  
60



1  
2  
3 important (1 = of very little or no importance; 5 = of utmost importance) doing interesting work,  
4  
5 having job respected by friends and family, and the opportunity to serve the public interest are in  
6  
7 determining their job selection (Cronbach's alpha = .81, using the sample of middle managers).<sup>11</sup>  
8  
9

10 We control for demographic variables such as age and gender that can possibly affect  
11  
12 individual propensity to sell issues (De Clercq et al., 2011).<sup>12</sup> We also control for organizational  
13  
14 tenure and government tenure, and ask for the respondents' highest educational degree. They are  
15  
16 likely to be accompanied by more information sources and a closer relationship with the strategic  
17  
18 apex, allowing them to be more active in playing upward roles. Organizational attributes as  
19  
20 represented by either the line-staff distinction or different functions (e.g. education, health,  
21  
22 transportation, etc.) may determine the necessity for middle managers to influence top managers'  
23  
24 perceptions and decisions. Finally, we control for the dummy variable of middle managers  
25  
26 (middle managers = 1; supervisors and senior employees = 0) in regression models. Table 2  
27  
28 shows the descriptive statistics and Table 3 shows the correlation matrix.  
29  
30  
31  
32  
33

34 [Insert Table 2 and Table 3 Here]

### 36 Findings

37  
38 We first examine the extent to which middle managers are involved in upward roles and  
39  
40 test whether championing new alternatives is less prevalent than synthesizing information among  
41  
42 public middle managers, our first hypothesis. Descriptive statistics of the whole sample show  
43  
44 that the involvement of the two roles is 3.31 and 3.44 over 5, respectively. We conduct three t-  
45  
46 tests using the whole sample, and the employees'/supervisors' sample, and the middle managers'  
47  
48 sample. Results in Table 4 show that while the differentials (or, gaps) between championing  
49  
50 new alternatives and synthesizing information are not large, they are nonetheless significant; the  
51  
52 gaps in the whole sample, the supervisors' sample, and the middle managers' sample are 0.133,  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 0.096, and 0.264 respectively, and all are statistically significant; hence, the results support our  
4  
5 first hypothesis (H1). Also, compared to supervisors and senior employees, middle managers  
6  
7 perceive a wider gap between championing alternatives and synthesizing information, and they  
8  
9 score more highly on synthesizing information and championing alternatives than employees'  
10  
11 and supervisors' perception of middle managers doing these activities.<sup>13</sup>  
12  
13  
14

15 [Insert Table 4 Here]  
16

17 We define the gap as the residuals from the OLS regression with championing  
18  
19 alternatives as the dependent variable and synthesizing information as the independent variable.<sup>14</sup>  
20  
21 Using the whole sample, this model has an adjusted R-square = .562 and regression coefficient  
22  
23 of synthesizing information = .760 ( $p < .000$ ).<sup>15</sup> The saved residuals from this model are used as  
24  
25 a dependent variable.  
26  
27

28 All three dependent variables in this study are continuous in nature: the synthesizing  
29  
30 information index (summation of four ordinal items), the championing alternatives index  
31  
32 (summation of four ordinal items), and the synthesizing-championing gap (error terms). Because  
33  
34 we are interested in single model and cross-model effects of predictors, we use multivariate  
35  
36 regression rather than OLS regression. Post-regression tests in multivariate regression allow for  
37  
38 testing a predictor's joint statistical significance for different regression models.<sup>16</sup>  
39  
40  
41  
42

43 Table 5 uses the entire sample to test hypotheses regarding high performance practices,  
44  
45 merit-based hiring, job security, connections with stakeholders, and the authoritarian-collective  
46  
47 culture (H2 through H5). The results show that the coefficients of many predictors such as job  
48  
49 security, high performance practices, and connections with stakeholders are positive and  
50  
51 statistically significant at the level of  $\alpha = .05$  in both Model 1 and Model 2. However, merit-  
52  
53 based hiring is not significant at the level of  $\alpha = .05$  in Model 1. In Model 3, 'job security' is the  
54  
55  
56  
57  
58  
59  
60

1  
2  
3 only statistically significant variable at the level of  $\alpha = .05$ , implying that what predicts both  
4 synthesizing information and championing alternatives differs from what predicts the  
5  
6 championing-synthesizing gap. Merit-based hiring is significant at the level of  $\alpha = .10$  but not  $\alpha$   
7  
8 = .05. Regarding the cross-model effect ( $H_0$ : the coefficient of the predictor in all three models =  
9  
10 0), job security, high performance practices, and connections with stakeholders are positive and  
11  
12 statistically significant across the three models. Therefore, we conclude that H2, H4, and H5 are  
13  
14 supported by our statistical results.  
15  
16  
17  
18

19  
20 [Insert Table 5 Here]  
21

22 Regarding control variables, we find that, in Table 5, middle managers in some specific  
23 agencies such as personnel and health are more likely than others to be involved in upward  
24 activities. Another important finding is that the dummy variable for middle managers (middle  
25 managers = 1; supervisors and senior employees = 0) is negative and approaching the  
26  
27 significance level of  $\alpha = .05$  (Coef = -0.115,  $p < .08$ ), reflecting that middle managers, compared  
28  
29 to supervisors and senior employees, perceive a somewhat larger gap between championing  
30  
31 alternatives and synthesizing information.  
32  
33  
34  
35  
36  
37  
38

39 The individual level variable, autonomous motivation, in the dataset is each respondent's  
40 perceptions of their own attributes; therefore, it is tested using data only from the middle  
41 managers' sample (i.e., it makes little sense to test whether a supervisor's autonomous  
42  
43 motivation affects middle managers' upward activity). The results are reported in Table 6. We  
44  
45 find that autonomous motivation is statistically significant in both Model 1 and Model 2 but not  
46  
47 Model 3 at the level of  $\alpha = .05$ . Regarding cross-model effects, autonomous motivation is  
48  
49 statistically significant at the level of  $\alpha = .05$ .  
50  
51  
52  
53  
54

55 [Insert Table 6 Here]  
56  
57  
58  
59  
60

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33

It is worth noting that other independent variables are not statistically significant in Table 6, however, the standard errors in Table 6 may be inflated due to the small sample size. Bivariate correlations show that merit-based hiring, performance management, job security, and connections with stakeholders are significantly correlated with both synthesizing information and championing alternatives at the level of  $\alpha = .05$  or even  $\alpha = .01$ .<sup>17</sup> As the R-square values for each model in Table 6 are a bit higher than the values in Table 5, this suggests that insignificant coefficients are indeed not due to zero-correlation, but rather the small sample size. These two tables show, in our view, a mutually supporting conclusion: management practices and structures (Table 5) matter, but for middle managers, their autonomous motivation is an even stronger predictor of championing alternatives and synthesizing information (Table 6). Perhaps this is to be expected: individual leadership and initiative matters, but surely this occurs within a context of organizational practices.

### Discussion

34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

Our research questions focus on how much public sector middle managers are involved in synthesizing information and championing alternatives, whether there is a gap between these two activities, and what factors are associated with these forms of upward activity. Taking these matters in sequence, first, this study finds that the perceived public manager upward activity is approximately 3.3-3.4 over 5. While we surely hesitate to give precise estimates based on survey data, only a bit more than one-third (37%) of respondents agree or strongly agree that middle managers champion initiatives, and 44% synthesize information such as evaluating how programs contribute to broader policies and goals. A possible explanation is that in traditional top-down organizations, of which there are still many, senior managers make their own strategic analysis and decisions as to what needs to be done.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

Second, we expected a gap between the passive role of synthesizing information and the active role of championing initiatives. The results support our speculation (H1), showing that championing alternatives is indeed less prevalent than synthesizing information. We also find that the differential is perceived larger by managers than by employees and supervisors and that, in general, middle managers score more highly on both activities than supervisors. Does this mean that middle managers perhaps overestimate their performance in upward activities and/or supervisors underestimate middle managers' performance? It is possible that people tend to evaluate others with a higher standard but show more lenience to themselves, but we do not rule out the possibility that supervisors are not fully familiar with middle managers' work content and thus give a lower score. Although we cannot pinpoint the reason (and it is not our research focus, in fact), we are reminded that using data from different groups of respondents can help minimize, if not eliminate, the bias originating from a single source.<sup>18</sup>

Third, our results bear out the broad, multi-level analysis of antecedents. Four out of five hypotheses received fairly strong statistical support: H2 (high performance practices), H4 (job security), H5 (connection with stakeholders), and H6 (autonomous motivation). Among the statistically significant levers, job security deserves special attention. Results show that job security is far from being anathema to modern management. Specially, job security is the only effective variable in explaining the synthesizing-championing gap. When being asked to be engaged in highly entrepreneurial activity, particularly championing innovation, managers are more apt to do so when extreme risks to career and reputation are managed, lest the rational calculus is to reduce downside risk. In fact, recently, public administration scholars provide evidence showing that perceived job security, different from perceived pecuniary rewards, facilitates motivation crowding in (Frey & Jegen, 2001) and accordingly fosters public service

1  
2  
3 motivation (Chen & Hsieh, 2014). It also enhances trust in organizations as well as trust in  
4  
5 management during the time when organizational reform brings fluctuation (Battaglio &  
6  
7 Condrey, 2009). While acknowledging that theoretical problems of complacency, moral hazard,  
8  
9 etc. are salient, the time has come to examine positive effects of job security.  
10  
11

12  
13 Finally, autonomous motivation is also a key antecedent, which includes a measure of  
14  
15 public service (“the opportunity to serve the public interest”), as well as intrinsic value of work  
16  
17 itself (“doing work that is interesting”). Much has been written about public service motivation  
18  
19 and performance (see Perry, Hondeghem, and Wise, 2010 for an overview), and these above  
20  
21 results extend that into the matter of selection (Andersen, Eriksson, Kristensen, & Pedersen,  
22  
23 2012; Chen & Bozeman, 2013). Moreover, as the variable merit-based selection is insignificant  
24  
25 across the models, upward activity cannot be furthered by ‘merely’ appointing more well-  
26  
27 qualified candidates, but rather those that have ‘demonstrated motivation’ from past work.  
28  
29  
30  
31

### 32 **Conclusion**

33  
34 Despite the increase of middle management research in the generic management  
35  
36 literature, such studies are relatively scant in public administration. This article examines public  
37  
38 middle managers’ upward activities, namely involvement in championing alternatives and  
39  
40 synthesizing information. We find that job security, connections with stakeholders, and  
41  
42 autonomous motivation are among the most important predictors of middle managers’ activities  
43  
44 in championing alternatives and synthesizing information. Middle managers engage more often  
45  
46 in synthesizing information than in championing alternatives. Among respondents, about 40  
47  
48 percent agree or strongly agree that middle managers champion alternatives.  
49  
50  
51  
52

53  
54 Our theoretical contribution is threefold. First, this study contributes to broader and more  
55  
56 realistic understanding of the contributions of middle management in public administration. The  
57  
58  
59  
60

1  
2  
3 present study brings a systematic research framework of middle managers into the public sector  
4 context and accordingly opens a new window to look at public management intricacies. Our  
5 empirical analysis supports our question design tailored for public sector managers. However,  
6 we acknowledge that middle management work involves much more than upward activities and  
7 surely includes implementing policies, facilitating change, and boundary spanning (Mantere,  
8 2008; Pappas & Wooldridge, 2007). How much are public sector middle managers involved in  
9 these activities? Do they prefer a more traditional role, naming implementing policies, to  
10 upward roles in a bureaucratic structure? Do they feel comfortable being a change facilitator,  
11 especially facing administrative reform? We know little of these matters, and recommend that  
12 scholars undertake further research on them.  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26

27 Second, our study shows the utilization of program and outcome information as part of  
28 the activities of middle managers, and our measures of synthesizing information and  
29 championing alternatives show managers dealing with complex information and using it for  
30 evaluating how programs affect broader policy goals. As information is a prerequisite for  
31 generating new knowledge (Tuomi, 1999), our research not only broadens the existing literature  
32 of middle management but also sheds light on the new research agenda of knowledge  
33 management in the public sector (Wiig, 2002; Willem & Buelens, 2007). Public administration  
34 as an innovative and active driver relies on continuously updated knowledge (Waldo, 1980);  
35 modern governments need cutting-edge expertise to solve social problems and develop new  
36 programs and policies; the source of civil servants' power is not election, but professional  
37 knowledge (Meier, 2006). As research related to knowledge management is critical but seldom  
38 addressed in public administration literature, future studies may consider the link between  
39 middle management and knowledge management.  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60

Finally, regarding predictors of middle managers' upward activities, we find three important but underexplored variables: job security, connections with stakeholders, and autonomous motivation. The positive relationship with job security provides yet another argument for critically assessing reform efforts that leave civil servants with little protection from powerful political actors. While it is encouraging that practitioners can benefit from these findings, we are reminded that variables included in this study are limited by our data. Many environmental factors such as goal ambiguity, red tape, and political interference are left uninvestigated. Whether HR practices (e.g. pay-for-performance) matter is also an intriguing issue. In sum, the present study is just a start to better understanding the roles of middle managers in today's public organizations.

### References

- Ahearne, M., Lam, S. K., & Kraus, F. (2014). Performance impact of middle managers' adaptive strategy implementation: The role of social capital. *Strategic Management Journal*, 35(1), 68-87.
- Andersen, L. B., Eriksson, T., Kristensen, N., & Pedersen, L. H. (2012). Attracting Public Service Motivated Employees: How to Design Compensation Packages. *International Review of Administrative Sciences*, 78(4), 615-641.
- Ashford, S. J., Rothbard, N. P., Piderit, S. K., & Dutton, J. E. (1998). Out on a Limb: The Role of Context and Impression Management in Selling Gender-Equity Issues. *Administrative Science Quarterly*, 43(1), 23-57.
- Battaglio, R. P., & Condrey, S. E. (2009). Reforming Public Management: Analyzing the Impact of Public Service Reform on Organizational and Managerial Trust. *Journal of Public Administration Research and Theory*, 19(4), 689-707.
- Berman, E. M., Wang, C.-Y., Chen, C.-A., Wang, X., Lovrich, N., Jan, C.-y., . . . Sonco, J. T. (2013). Public Executive Leadership in East and West An Examination of HRM Factors in Eight Countries. *Review of Public Personnel Administration*, 33(2), 164-184.
- Blais, M. R., Sabourin, S., Boucher, C., & Vallerand, R. J. (1990). Toward a Motivational Model of Couple Happiness. *Journal of Personality and Social Psychology*, 59(5), 1021-1031.
- Borins, S. (2000). Loose Cannons and Rule Breakers, or Enterprising Leaders? Some Evidence about Innovative Public Managers. *Public Administration Review*, 60(6), 498-507.
- Bowman, J. S. (2002). At-Will Employment in Florida Government. A Naked Formula to Corrupt Public Service. *WorkingUSA*, 6(2), 90-102.
- Bowman, J. S., & Knox, C. C. (2008). Ethics in Government: No Matter How Long and Dark the Night. *Public Administration Review*, 68(4), 627-639.
- Boyett, I., & Currie, G. (2004). Middle Managers Moulding International Strategy: An Irish Start-Up in Jamaican Telecoms. *Long Range Planning*, 37(1), 51-66.
- Bozeman, B., & Kingsley, G. (1998). Risk Culture in Public and Private Organizations. *Public Administration Review*, 58(2), 109-118.



- 1  
2  
3 Bozeman, B., & Rainey, H. G. (1988). Organizational Rules and the "Bureaucratic Personality".  
4 *American Journal of Political Science*, 42(1), 163-189.
- 5 Burgelman, R. A. (1994). Fading Memories: A Process Theory of Strategic Business Exit in Dynamic  
6 Environments. *Administrative Science Quarterly*, 39(1), 24-56.
- 7 Carney, M. (2004). Middle Manager Involvement in Strategy Development in Not-For Profit  
8 Organizations: The Director of Nursing Perspective – How Organizational Structure Impacts on  
9 the Role. *Journal of Nursing Management*, 12(1), 13-21.
- 10 Chen, C.-A. (2008). Linking the Knowledge Creation process to Organizational Theories. *Journal of*  
11 *Organizational Change Management*, 21(3), 259-279.
- 12 Chen, C.-A., & Bozeman, B. (2012). Organizational Risk Aversion: Comparing The Public and Non-  
13 Profit Sectors. *Public Management Review*, 14(3), 377-402.
- 14 Chen, C.-A., & Bozeman, B. (2013). Understanding Public and Nonprofit Managers' Motivation Through  
15 the Lens of Self-Determination Theory. *Public Management Review*, 15(4), 584-607.
- 16 Chen, C.-A., & Hsieh, C.-W. (2014). Does Pursuing External Incentives Compromise Public Service  
17 Motivation? Comparing the Effects of Job Security and High Pay. *Public Management Review*,  
18 *accepted*, in press.
- 19 Chuang, E., Jason, K., & Morgan, J. C. (2011). Implementing Complex Innovations: Factors Influencing  
20 Middle Manager Support. *Health Care Management Review*, 36(4), 369-379.
- 21 Conway, E., & Monks, K. (2011). Change from Below: The Role of Middle Managers in Mediating  
22 Paradoxical Change. *Human Resource Management Journal*, 21(2), 190-203.
- 23 Currie, G. (2000). The Public Manager in 2010: The Role of Middle Managers in Strategic Change in the  
24 Public Sector. *Public Money and Management*, 20(1), 17-22.
- 25 Currie, G. (2006). Reluctant but resourceful middle managers: the case of nurses in the NHS. *Journal of*  
26 *Nursing Management*, 14(1), 5-12.
- 27 Currie, G., & Procter, S. J. (2005). The Antecedents of Middle Managers' Strategic Contribution: The  
28 Case of a Professional Bureaucracy. *Journal of Management Studies*, 42(7), 1325-1356.
- 29 De Clercq, D., Castañer, X., & Belausteguigoitia, I. (2011). Entrepreneurial Initiative Selling within  
30 Organizations: Towards a More Comprehensive Motivational Framework. *Journal of*  
31 *Management Studies*, 48(6), 1269-1290.
- 32 Diamond, T. (2011). *Middle Management in Academic and Public Libraries*. Santa Barbara, CA: ABC-  
33 CLIO.
- 34 Dutton, J. E., & Ashford, S. J. (1993). Selling Issues to Top Management. *Academy of Management*  
35 *Review*, 18(3), 397-428.
- 36 Dutton, J. E., Ashford, S. J., O'Neill, R. M., Hayes, E., & Wierba, E. E. (1997). Reading the Wind: How  
37 Middle Managers Assess the Context for Selling Issues to Top Managers. *Strategic Management*  
38 *Journal*, 18(5), 407-425.
- 39 Dutton, J. E., Ashford, S. J., O'Neill, R. M., & Lawrence, K. A. (2001). Moves that Matter: Issue Selling  
40 and Organizational Change. *Academy of Management Journal*, 44(4), 716-736.
- 41 Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the Use of  
42 Exploratory Factor Analysis in Psychological Research. *Psychological Methods*, 4(3), 272.
- 43 Floyd, S. W., & Wooldridge, B. (1992). Middle Management Involvement in Strategy and Its Association  
44 with Strategic Type: A Research Note. *Strategic Management Journal*, 13, 153-167.
- 45 Floyd, S. W., & Wooldridge, B. (1994). Dinosaurs or Dynamos? Recognizing Middle Management's  
46 Strategic Role. *Academy of Management Executive*, 8(4), 47-57.
- 47 Frey, B. S., & Jegen, R. (2001). Motivation Crowding Theory. *Journal of economic surveys*, 15(5), 589-  
48 611.
- 49 Gagné, M., Forest, J., Gilbert, M.-H. H., Aubé, C., Morin, E., & Malorni, A. (2010). The Motivation at  
50 Work Scale: Validation Evidence in Two Languages. *Educational and Psychological*  
51 *Measurement*, 70(4), 628-646.
- 52 Ghadim, A. K. A., Pannell, D. J., & Burton, M. P. (2005). Risk, Uncertainty, and Learning in Adoption of  
53 a Crop Innovation. *Agricultural Economics*, 33(1), 1-10.
- 54  
55  
56  
57  
58  
59  
60

- 1  
2  
3 Ghoshal, S., & Bartlett, C. A. (1994). Linking Organizational Context and Managerial Action: The  
4 Dimensions of Quality of Management. *Strategic Management Journal*, 15(S2), 91-112.
- 5 Hayamizu, T. (1997). Between Intrinsic and Extrinsic Motivation: Examination of Reasons for Academic  
6 Study Based on the Theory of Internalization. *Japanese Psychological Research*, 39(2), 98-108.
- 7  
8 Hornsby, J. S., Kuratko, D. F., & Zahra, S. A. (2002). Middle Managers' Perception of the Internal  
9 Environment for Corporate Entrepreneurship: Assessing a Measurement Scale. *Journal of*  
10 *Business Venturing*, 17(3), 253-273.
- 11 Huy, Q. N. (2001). In Praise of Middle Managers. *Harvard Business Review*, 79(8), 72-79.
- 12 Janto, J. M. (2004). Redemption: Reflections of a Life in Middle Management. *Trends Law Library*  
13 *Management & Technology*, 15(1), 5-8.
- 14 Kanter, R. M. (1982). The Middle Manager as Innovator. *Harvard Business Review*, 60(4), 95-105.
- 15 Kanter, R. M., Stein, B. A., & Jick, T. D. (1992). *The Challenge of Organizational Change: How*  
16 *Companies Experience It and Leaders Guide It*. New York: The Free Press.
- 17 Kapucu, N. (2006). Public-Nonprofit Partnerships for Collective Action in Dynamic Contexts of  
18 Emergencies. *Public Administration*, 84(1), 205-220.
- 19 Kellough, J. E., & Nigro, L. G. (2006). Dramatic Reform in the Public Service: At-Will Employment and  
20 the Creation of a New Public Workforce. *Journal of Public Administration Research and Theory*,  
21 16(3), 447-466.
- 22 Kuratko, D. F., Ireland, R. D., Covin, J. G., & Hornsby, J. S. (2005). A Model of Middle-Level Managers'  
23 Entrepreneurial Behavior. *Entrepreneurship Theory and Practice*, 29(6), 699-716.
- 24 Light, P. C. (1999). *The True Size of Government*. Washington DC: Brookings Institution Press.
- 25 Light, P. C. (2008). *A Government Ill Executed*. Boston, MA: Harvard University Press.
- 26 Logan, J. R., & Molotch, H. L. (2007). *Urban Fortunes: The Political Economy of Place*: Univ of  
27 California Press.
- 28 Mack, W., Green, D., & Vedlitz, A. (2008). Innovation and implementation in the public sector: An  
29 examination of public entrepreneurship. *Review of Policy Research*, 25(3), 233-252.
- 30 Mair, J. (2005). Exploring the Determinants of Unit Performance The Role of Middle Managers in  
31 Stimulating Profit Growth. *Group & Organization Management*, 30(3), 263-288.
- 32 Mantere, S. (2008). Role expectations and middle manager strategic agency. *Journal of Management*  
33 *Studies*, 45(2), 294-316.
- 34 Meier, K. J. (2006). *Politics and the Bureaucracy: Policymaking in the Fourth Branch of Government*.  
35 Belmont, CA: Wadsworth Publishing.
- 36 Moon, M. J., & Bretschneider, S. (2002). Does the Perception of Red Tape Constrain IT Innovativeness  
37 in Organizations? Unexpected Results from a Simultaneous Equation Model and Implications.  
38 *Journal of Public Administration Research and Theory*, 12(2), 273-292.
- 39 Morgan, D., Bacon, K. G., Bunch, R., Cameron, C. D., & Deis, R. (1996). What Middle Managers Do in  
40 Local Government: Stewardship of the Public Trust and the Limits of Reinventing Government.  
41 *Public Administration Review*, 56(4), 359-366.
- 42 Nonaka, I., & Takeuchi, H. (1995). *The Knowledge-Creating Company: How Japanese Companies*  
43 *Create the Dynamics of Innovation*. New York: Oxford University Press.
- 44 Ogbonna, E., & Harris, L. C. (2002). Organizational Culture: A ten Year, Two-phase Study of Change in  
45 the UK Food Retailing Sector. *Journal of Management Studies*, 39(5), 673-706.
- 46 Olshfski, D. F. (2008). *Agendas and Decisions: How State Government Executives and Middle Managers*  
47 *Make and Administer Policy*. Albany, New York: SUNY Press.
- 48 Pappas, J. M., & Wooldridge, B. (2007). Middle managers' divergent strategic activity: an investigation of  
49 multiple measures of network centrality. *Journal of Management Studies*, 44(3), 323-341.
- 50 Pelletier, L. G., Fortier, M. S., Vallerand, R. J., Tuson, K. M., Briere, N. M., & Blais, M. R. (1995).  
51 Toward a New Measure of Intrinsic Motivation, Extrinsic Motivation, and Amotivation in Sports:  
52 The Sport Motivation Scale (SMS). *Journal of Sport and Exercise Psychology*, 17, 35-35.
- 53  
54  
55  
56  
57  
58  
59  
60

- 1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60
- Perry, J. L., Hondeghem, A., & Wise, L. R. (2010). Revisiting the Motivational Bases of Public Service: Twenty Years of Research and an Agenda for the Future. *Public Administration Review*, 70(5), 681-690.
- 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. doi: 10.1037/0021-9010.88.5.879
- Podsakoff, P. M., & Organ, D. W. (1986). Self-Reports in Organizational Research: Problems and Prospects. *Journal of Management*, 12(4), 531-544.
- Quinn, J. B. (1985). Managing Innovation: Controlled Chaos. *Harvard Business Review*, 63(3), 73-84.
- Richardson, H. A., Simmering, M. J., & Sturman, M. C. (2009). A Tale of Three Perspectives Examining Post Hoc Statistical Techniques for Detection and Correction of Common Method Variance. *Organizational Research Methods*, 12(4), 762-800.
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, 55(1), 68-78.
- Schilit, W. K., & Locke, E. A. (1982). A Study of Upward Influence in Organizations. *Administrative Science Quarterly*, 27(2), 304-316.
- Schmid, T., Floyd, S., & Wooldridge, B. (2010). Putting the Manager Back into the Picture: The Value of a Strategy Process Perspective. In P. Mazzola & F. W. Kellermanns (Eds.), *Handbook of Research on Strategy Process* (pp. 142-162). Northampton, MA: Edward Elgar Publishing.
- Sillince, J., & Mueller, F. (2007). Switching Strategic Perspective: The Reframing of Accounts of Responsibility. *Organization Studies*, 28(2), 155-176.
- Stark, A. (2002). What Is the New Public Management? *Journal of Public Administration Research and Theory*, 12(1), 137-151.
- Sun, M. T.-W. (2008). Rhetoric or Action? An Assessment of the Administrative Reform in Taiwan. *Journal of Asian Public Policy*, 1(1), 52-70.
- Tan, Q. (2000). Democratization and Bureaucratic Restructuring in Taiwan. *Studies in Comparative International Development*, 35(2), 48-64.
- Taylor, J. (2013). Public Service Motivation, Relational Job Design, And Job Satisfaction In Local Government. *Public Administration*, article first published online: DOI: 10.1111/j.1467-9299.2012.02108.x.
- Thomas, R., & Dunkerley, D. (1999). Janus and the Bureaucrats: Middle Management in the Public Sector. *Public Policy and Administration*, 14(1), 28-41.
- Thomas, R., & Linstead, A. (2002). Losing the Plot? Middle Managers and Identity. *Organization*, 9(1), 71-93.
- Tremblay, M. A., Blanchard, C. M., Taylor, S., Pelletier, L. G., & Villeneuve, M. (2009). Work Extrinsic and Intrinsic Motivation Scale: Its Value for Organizational Psychology Research. *Canadian Journal of Behavioural Science*, 41(4), 213-226.
- Tuomi, I. (1999). Data is More Than Knowledge. *Journal of Management Information Systems*, 16(3), 107-121.
- Varma, V. (2012). *Organizational Change Readiness Sentiments: Understanding Middle Manager Sensemaking and Sensegiving*. (Doctor of Philosophy), Auburn University, Auburn, Alabama.
- Waldo, D. (1980). *The Enterprise of Public Administration: A Summary View*. Novato, CA: Chandler & Sharp Publishers.
- Waterman, R. W., & Meier, K. J. (1998). Principal-Agent Models: An Expansion? *Journal of Public Administration Research and Theory*, 8(2), 173-202.
- Wiig, K. M. (2002). Knowledge Management in Public Administration. *Journal of Knowledge Management*, 6(3), 224-239.
- Willem, A., & Buelens, M. (2007). Knowledge Sharing in Public Sector Organizations: The Effect of Organizational Characteristics on Interdepartmental Knowledge Sharing. *Journal of Public Administration Research and Theory*, 17(4), 581-606.

- 1  
2  
3 Williams, L. J., Cote, J. A., & Buckley, M. R. (1989). Lack of Method Variance in Self-Reported Affect  
4 and Perceptions at Work: Reality or Artifact? *Journal of Applied Psychology*, 74(3), 462-468.  
5  
6 Wooldridge, B., Schmid, T., & Floyd, S. W. (2008). The Middle Management Perspective on Strategy  
7 Process: Contributions, Synthesis, and Future Research. *Journal of Management*, 34(6), 1190-  
8 1221.  
9 Yang, K., & Callahan, K. (2007). Citizen Involvement Efforts and Bureaucratic Responsiveness:  
10 Participatory Values, Stakeholder Pressures, and Administrative Practicality. *Public*  
11 *Administration Review*, 67(2), 249-264.  
12

### 13 Endnotes

14  
15  
16 <sup>1</sup> For example, Schmid, Floyd, and Wooldridge (2010) define middle managers as “those actors who combine access  
17 to top management with knowledge of operations.” According to Varma (2012), middle managers typically head a  
18 function, a team, or a department, and Kanter, Stein, and Jick (1992) posit a broad definition where ‘middle’  
19 stretches from those with supervisory responsibilities of first line employees to managers below top management.  
20

21 <sup>2</sup> While scholars may theorize that normatively all strategic decisions should be made by elected officials, this is  
22 seldom practical for reasons mention in the next paragraph. For example, it is conventionally assumed that many  
23 senior-level decisions are prepared by subordinate managers.  
24

25 <sup>3</sup> Taiwan has a population of 23.3 million, and GDP of \$37,000 per capita (purchasing power parity).  
26 <http://en.wikipedia.org/wiki/Taiwan> (September 3, 2013).  
27

28 <sup>4</sup> Ministry of Interior, Ministry of Education, Ministry of Transportation and Communications, Central Personnel  
29 Administration, Department of Health, Environmental Protection Administration, and Ministry of Economic Affairs.  
30

31 <sup>5</sup> Grade 12 is deemed senior management, and hence not included. We did, however, also collect those responses  
32 (n=97) which are not analysed here.  
33

34 <sup>6</sup> Among ministries, response rates vary: Health 24.0%, Education 36.8%, Economic Affairs 53.5%, Interior 58.2%,  
35 Transportation 61.2%, Personnel 68.4%, and Environmental Protection 81.7%.  
36

37 <sup>7</sup> As regarding our non-middle manager respondents, they are senior employees or supervisors, they are very  
38 experienced workers in the government (mean = 18.2 years) and in the agency (mean = 10.8 years), and a majority  
39 of them (n = 409) are Grade-9 employees, only one or two grades lower than middle managers (Grade 10 or 11 in a  
40 Grade-14 system). While middle managers might overstate their contributions, senior employees might understate  
41 these due to lesser familiarity. The data support this, yet showing close convergence, as well. Across all 8 items of  
42 the DVs, the percentage of employees who respond “don’t know” is higher than middle managers, 16.8% versus  
43 9.1%, but both numbers are surely within reason. Also, middle managers tend to give a bit higher scores for  
44 themselves than others. For example, on the item “MM/I bring information about frontline service operations to  
45 upper managers,” 53.3% of employees agree or strongly agree, compared with 65.0% among middle managers  
46 themselves. Such differences are hardly surprising and in fact show a good deal of convergence. In addition, after  
47 taking some training courses or getting a higher level position temporarily (Grade-9 persons can temporarily stay on  
48 a manager’s position tailored for Grade-10, waiting for being promoted), they should to some extent know what  
49 middle managers do and how they perform. In sum, we argue that there is good validity in the combined sample.  
50

51 <sup>8</sup> In using the unmeasured latent methods factor approach, we acknowledge that the Harman’s test has been  
52 criticized by scholars, as it is not sensitive enough (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Passing the  
53 test does not guarantee the immunity to common-method bias. However, failing the test indicates that common-  
54 method variance is indeed a major problem.  
55

56 <sup>9</sup> We do not fully employ the items developed by Floyd and Wooldridge (1992) in their pioneer study as, we believe,  
57 questions tailored for public managers should be less oriented to market/competition but more oriented to public  
58 policies/programs. They measure championing alternatives using items such as “justifying and defining new  
59  
60

1  
2  
3  
4 programs” and “proposing programs to higher level managers.” They measure synthesizing information using items  
5 such as “communicating the activities of suppliers and competitors” and “accessing changes in the external  
6 environment.”  
7

8 <sup>10</sup> We use exploratory factor analysis with maximum likelihood (ML) extraction. This method allows computation  
9 of assorted indices of goodness-of-fit. It tests the significance of loadings and correlations between factors.  
10 According to Fabrigar, Wegener, MacCallum, and Strahan (1999), this method is more desirable than principal  
11 component analysis (PCA) if the goal is to arrive at a parsimonious representation of the associations among  
12 measured variables, as PCA does not differentiate between common and unique variance.  
13

14 <sup>11</sup> As is common, respondents self-assessed these items, and so middle managers assessed their own autonomous  
15 motivation, as did employees/supervisors.  
16

17 <sup>12</sup> Age group can be treated as either ordinal or categorical. We actually treated it categorical (in total 4 categories),  
18 used one as the base category, ran the regression, and found that none of the categories was statistically significant,  
19 not too different from the results when we treat it ordinal. For the statistical parsimony, we treat it as an ordinal  
20 variable in the present study.  
21

22 <sup>13</sup> About 36.9% of the middle managers ‘agree’ or ‘strongly agree’ that they champion alternatives, and 53.5% of  
23 them ‘agree’ or ‘strongly agree’ that they synthesize information, hence, the gap is 16.6%. About 37.4% of the  
24 senior employees/supervisors ‘agree’ or ‘strongly agree’ that middle managers champion alternatives, but 41.4% of  
25 them ‘agree’ or ‘strongly agree’ that middle managers synthesize information, hence, this gap is only 4.0%.  
26

27 <sup>14</sup> Technically, one could measure the gap as ‘championing alternatives minus synthesizing information.’ However,  
28 theoretically speaking, synthesizing information is the precursor of championing alternatives, making synthesizing  
29 information a statistical predictor for championing alternatives. Therefore, using regression residuals would be  
30 theoretically a more desirable method.  
31

32 <sup>15</sup> The Breusch-Pagan / Cook-Weisberg test for heteroskedasticity (Ho: constant variance) shows that chi square =  
33 1.88,  $p > 0.17$ , meaning that this model is homoskedastic.  
34

35 <sup>16</sup> Of course, most methods have advantages and disadvantages. While multivariate regression allows post-  
36 regression tests for the joint effect across models, it does not allow the tests for multicollinearity and  
37 heteroscedasticity. Therefore, in addition to multivariate regression, we conducted OLS regression analyses and  
38 tested multicollinearity and heteroscedasticity. The mean of VIF is 1.59 and the largest value is 2.37, showing little  
39 collinearity problem. However, while the OLS models were not homoscedastic, we addressed this through robust  
40 standard errors. We find that results (in terms of statistical significance) differ little from the multivariate regression  
41 results. We acknowledge the limitations of multivariate and OLS regression, and believe that advantages of  
42 multivariate regression outweigh the advantages of OLS regression. Due to the research interests in the present study,  
43 we employ multivariate regression. The Stata command ‘mvreg’ is used for multivariate regression.  
44

45 <sup>17</sup> We use the coefficients of ‘connections with stakeholders’ in Model 1 as an example. In Table 4 (the whole  
46 sample), the coefficient is 0.173 with  $t = 3.96$ . However, in Table 5 (the middle managers’ sample), the coefficient  
47 is 0.168 with  $t = 1.70$ . That is, even when the substantive impacts are similar, statistical significance is weaker in  
48 models with a smaller sample size.  
49

50 <sup>18</sup> Also, our measures do not capture other information processing roles, such as routine managerial reporting etc.  
51 While we do not aim to compare with traditional styles of public administration, future studies might well seek to do  
52 so.  
53  
54  
55  
56  
57  
58  
59  
60

## Tables

Table 1. Exploratory factor analysis

	Synthesizing information	Championing alternatives
MM1	<b>0.704</b>	0.316
MM2	<b>0.868</b>	0.359
MM3	<b>0.793</b>	0.435
MM4	<b>0.624</b>	0.534
MM5	0.418	<b>0.813</b>
MM6	0.457	<b>0.788</b>
MM7	0.367	<b>0.821</b>
MM8	0.280	<b>0.770</b>

Table 2. Descriptive statistics

	The whole sample (n=644)	The SP Sample (n=499)	The MM sample (n=145)	Scale
Synthesizing information	3.44 (0.86)	3.38 (0.88)	3.67 (0.76)	1-5
Championing alternatives	3.31 (0.87)	3.28 (0.89)	3.40 (0.80)	1-5
High performance practices	5.12 (1.12)	5.01 (1.14)	5.48 (0.96)	1-7
Merit-based hiring	4.41 (0.93)	4.35 (0.94)	4.63 (0.89)	1-7
Job security	5.36 (1.15)	5.31 (1.17)	5.53 (1.08)	1-7
Connections with stakeholders	4.72 (0.98)	4.65 (1.01)	4.97 (0.85)	1-7
Autonomous motivation	4.01 (0.65)	3.95 (0.66)	4.21 (0.55)	1-5
Male	0.53 (0.50)	0.49 (0.50)	0.66 (0.47)	0-1
Line (vs. staff)	0.33 (0.47)	0.35 (0.48)	0.26 (0.44)	0-1
Organizational tenure	11.54 (8.06)	10.81 (7.61)	14.02 (9.03)	0-40
Government tenure	20.06 (8.00)	18.19 (7.40)	26.46 (6.52)	2-41
Age group	2.01 (0.89)	1.92 (0.80)	2.32 (1.11)	1-4
Highest education	2.62 (0.59)	2.58 (0.59)	2.76 (0.60)	1-4
Interior	0.19 (0.39)	0.20 (0.40)	0.15 (0.36)	0-1
Education	0.12 (0.32)	0.12 (0.33)	0.11 (0.31)	0-1
Transportation	0.14 (0.35)	0.14 (0.35)	0.13 (0.34)	0-1
Personnel	0.08 (0.27)	0.08 (0.27)	0.07 (0.25)	0-1
Health	0.04 (0.19)	0.03 (0.18)	0.06 (0.23)	0-1
Environment	0.20 (0.40)	0.20 (0.40)	0.18 (0.38)	0-1
Economy	0.24 (0.43)	0.23 (0.42)	0.30 (0.46)	0-1

Mean (SD) reported; SP: supervisors; MM: middle managers

Table 3. Correlation matrix (n=644)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30  
31  
32  
33  
34  
35  
36  
37  
38  
39  
40  
41  
42  
43  
44  
45  
46  
47  
48  
49

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
Synthesizing information (1)	1.00																			
Championing alternatives (2)	0.75	1.00																		
High performance (3)	0.38	0.41	1.00																	
Merit hiring (4)	0.30	0.31	0.57	1.00																
Job security (5)	0.34	0.34	0.40	0.32	1.00															
Stakeholder connection (6)	0.38	0.39	0.65	0.40	0.33	1.00														
Autonomous motivation (7)	0.29	0.31	0.18	0.10	0.14	0.19	1.00													
Male (8)	0.03	0.03	0.06	0.06	0.06	0.09	-0.01	1.00												
Line (vs. staff) (9)	0.02	0.03	-0.05	-0.01	-0.01	0.07	-0.01	0.07	1.00											
Organizational tenure (10)	0.00	0.01	-0.05	-0.04	0.01	0.05	0.00	0.05	0.14	1.00										
Government tenure (11)	0.16	0.11	0.18	0.10	0.17	0.15	0.08	0.14	-0.05	0.51	1.00									
Age group (12)	0.09	0.09	0.10	0.02	0.05	0.12	0.05	0.17	-0.04	0.19	0.26	1.00								
Highest education (13)	0.03	0.08	-0.01	0.03	-0.05	0.08	0.11	0.04	0.13	0.06	-0.11	-0.06	1.00							
Interior (14)	0.02	-0.03	-0.06	0.02	-0.05	-0.07	-0.05	-0.12	0.04	-0.06	0.00	-0.26	-0.19	1.00						
Education (15)	0.00	0.06	0.00	0.01	0.05	0.04	0.03	-0.08	0.09	0.04	0.00	-0.17	0.18	-0.18	1.00					
Transportation (16)	-0.14	-0.14	-0.02	-0.05	-0.04	-0.09	-0.04	0.05	-0.08	0.00	0.01	-0.26	-0.01	-0.20	-0.15	1.00				
Personnel (17)	0.07	0.03	-0.07	-0.01	-0.02	-0.06	0.02	-0.06	0.08	-0.06	-0.15	-0.11	0.04	-0.14	-0.11	-0.12	1.00			
Health (18)	0.07	0.01	0.00	0.04	0.03	-0.02	0.03	0.02	-0.07	-0.03	0.10	-0.10	0.03	-0.09	-0.07	-0.08	-0.06	1.00		
Environment (19)	0.01	0.06	0.02	0.00	0.01	0.08	0.02	0.07	0.04	0.13	0.09	0.26	0.06	-0.24	-0.18	-0.20	-0.14	-0.10	1.00	
Economy (20)	0.02	0.02	0.09	0.01	0.03	0.08	0.01	0.09	-0.10	-0.04	-0.04	0.45	-0.04	-0.27	-0.21	-0.23	-0.16	-0.11	-0.28	1.00

Table 4. T-Tests: Comparing synthesizing information and championing alternatives (H1)

	<i>Synthesizing information</i>	<i>Championing alternatives</i>	<i>Gap</i>	<i>p</i>
The whole sample (n=644)	3.440	3.307	0.133	0.00**
The supervisors/employees sample (n=499)	3.376	3.280	0.096	0.00**
The middle managers sample (n=144)	3.663	3.399	0.264	0.00**

\*\* $p < .01$ 

Table 5. Multivariate regression: the whole sample (H2-H5)

	<i>Model 1: Synthesizing information</i>		<i>Model 2: Championing alternatives</i>		<i>Model 3: Synthesizing-championing gap</i>		<i>Cross-model effect (post-regression tests)</i>
	<i>Coef</i>	<i>p &gt;  t </i>	<i>Coef</i>	<i>p &gt;  t </i>	<i>Coef</i>	<i>p &gt;  t </i>	
<u>Control variables</u>							
Managers (vs. supervisors)	0.039	0.65	-0.086	0.33	-0.115	0.08†	--
Male	-0.015	0.82	0.001	0.99	0.011	0.83	--
Line (vs. staff)	0.016	0.82	0.021	0.77	0.008	0.88	--
Organizational tenure	-0.006	0.24	-0.002	0.69	0.002	0.51	--
Government tenure	0.008	0.13	0.003	0.59	-0.003	0.40	--
Age	0.057	0.23	0.056	0.25	0.015	0.68	--
Highest education	0.043	0.44	0.079	0.17	0.047	0.26	--
Interior	0.181	0.11	0.097	0.41	-0.039	0.65	--
Education	0.095	0.43	0.212	0.09†	0.141	0.13	--
Transportation	-0.128	0.29	-0.139	0.26	-0.034	0.71	--
Personnel	0.466	0.00**	0.381	0.01*	0.027	0.80	--
Health	0.372	0.05*	0.059	0.77	-0.221	0.13	--
Environment	0.045	0.65	0.117	0.25	0.084	0.26	--
<u>Independent variables</u>							
High performance practices (H2)	0.106	0.01*	0.125	0.01*	0.043	0.18	0.01*
Merit-based hiring (H3)	0.041	0.33	0.085	0.05*	0.054	0.09†	0.33
Job security (H4)	0.138	0.00**	0.148	0.00**	0.044	0.05*	0.00**
Connections with stakeholders (H5)	0.171	0.00**	0.148	0.00**	0.018	0.58	0.00**
Constant	0.873	0.00**	0.588	0.02*	-0.769	0.00**	--
Observation	573		573		573		
F	11.684		11.559		2.737		
Prob > F	0.000**		0.000**		0.000**		
R square	0.252		0.250		0.073		

\*\* $p < .01$ ; \* $p < .05$ ; † $p < .10$



Table 6. Multivariate regression: the middle managers sample (H6)

	<i>Model 1: Synthesizing information</i>		<i>Model 2: Championing alternatives</i>		<i>Model 3: Synthesizing- championing gap</i>		<i>Cross- model effect (post- regression tests)</i>
	<i>Coef</i>	<i>p &gt;  t </i>	<i>Coef</i>	<i>p &gt;  t </i>	<i>Coef</i>	<i>p &gt;  t </i>	<i>Prob &gt; F</i>
<u>Control variables</u>							
Grade 11 (vs. grade 10)	0.146	0.39	0.148	0.42	0.045	0.76	--
Male	0.048	0.75	0.055	0.73	0.021	0.87	--
Line (vs. staff)	-0.086	0.59	-0.050	0.77	0.010	0.94	--
Organizational tenure	-0.009	0.24	-0.005	0.56	0.002	0.80	--
Government tenure	-0.001	0.92	-0.011	0.40	-0.010	0.34	--
Age	-0.174	0.19	-0.116	0.42	0.007	0.95	--
Highest education	0.055	0.67	0.222	0.10	0.183	0.08†	--
Interior	-0.227	0.53	-0.120	0.76	0.041	0.90	--
Education	-0.642	0.06†	-0.050	0.89	0.405	0.17	--
Transportation	-0.363	0.29	-0.543	0.14	-0.286	0.34	--
Personnel	-0.493	0.22	-0.269	0.53	0.080	0.82	--
Health	-0.157	0.70	-0.117	0.79	-0.006	0.99	--
Environment	-0.054	0.79	0.074	0.74	0.112	0.53	--
<u>Independent variables</u>							
High performance practices (H2)	0.047	0.63	0.148	0.16	0.115	0.19	0.63
Merit-based hiring (H3)	-0.040	0.65	0.003	0.98	0.032	0.69	0.65
Job security (H4)	0.064	0.32	0.083	0.23	0.038	0.50	0.31
Connections with stakeholders (H5)	0.180	0.06†	0.146	0.16	0.019	0.82	0.06†
Autonomous motivation (H6)	0.478	0.00**	0.423	0.00**	0.084	0.43	0.00**
Constant	0.492	0.62	-0.269	0.80	-1.422	0.11	--
Observation	123		123		123		
F	2.338		2.217		1.210		
Prob > F	0.004**		0.007**		0.269		
R square	0.275		0.264		0.164		

\*\* $p < .01$ ; \* $p < .05$ ; † $p < .10$

## Appendix A. Variable Measurement

### Dependent variables

Synthesizing information (1 = strongly disagree; 5 = strongly agree; alpha = .90)

- I bring information about frontline service operations to upper managers
- I deal with complex information and synthesize it into clear understandings
- I analyze both internal and external information when assessing programs and policies
- I analyze and evaluate how programs contribute to broader policy and agency goals

Championing alternatives (1 = strongly disagree; 5 = strongly agree; alpha = .94)

- I help new programs and projects getting off the ground
- I try to make existing programs better
- I propose new programs or projects to senior management
- I lead in developing new programs

### Independent variables

Job security (1 = strongly disagree; 7 = strongly agree)

- Job security in this organization is satisfactory

High performance practices (1 = strongly disagree; 7 = strongly agree; alpha = .84)

- Our department encourages open and constructive dialogue
- Top management has a high level of trust in their subordinates
- Our agency rewards innovative ideas

Merit-based recruitment (1 = strongly disagree; 7 = strongly agree; alpha = .72)

- We are able to hire candidates who are well-qualified for the job
- My department upholds merit principles in hiring
- There is favoritism in hiring or promotion (inverse)
- We sometimes do not advertise our vacancies (inverse)
- Many positions do not have qualification standards (inverse)
- There is sometimes pressure from politicians or other influential persons in hiring (inverse)

Connections with stakeholders (1 = strongly disagree; 7 = strongly agree; alpha = .70)

- We have a strong customer orientation
- We use public-private partnerships for service delivery
- We use focus groups or other meetings with clients or citizens
- Senior managers generate support from citizens and elected officials for our agency's programs

Autonomous motivation: Please think of an ideal job. In choosing an ideal job, how important is it to... (1 = of very little or no importance; 5 = of utmost importance to me; alpha = .81)

- Do work that is interesting
- Have a job that is respected by my friends and family
- The opportunity to serve the public interest

### Control variables

Age (categorical/ordinal; under 35 = 1; 35~44 = 2; 45~54 = 3; over 54 = 4); Gender (male = 1; female = 0); Line-staff (line = 1; staff = 0); Organizational tenure (continuous); Government tenure (continuous); Highest education (vocational education = 1; bachelor's degree = 2; master's degree = 3; PhD = 4); Organizational function (categorical; interior = 1; education = 2; transportation = 3; personnel = 4; health = 5; environment = 6; economy = 7)