CPAR Chinese Public Administration Review
Volume 8 Issue 2, December 2017

Who Cares: Stakeholder Participation and the Use of Performance Information in Strategic Planning

Ssu-Hsien Chen
Nation Taipei University, Taiwan

Performance measurement translates organizational goals into objectives and actions. Empirical performance information scores and ranks functional departments based on their implementation capacity; such capacity indexes can be linked to strategic planning and the adjustment thereof. Does the participation of various stakeholders in the strategic planning process enhance the use of performance information? Do external stakeholders generate a different effect on the use of performance information when compared to internal stakeholders? The author attempts to answer these questions by examining whether the participation of external stakeholders (including interest groups and citizen groups) and internal stakeholders (including Chief Administrative Officers [CAOs], local government staff, and elected officials) in strategic plans could positively influence the application of performance information to strategic planning. Data are mainly from the 2006 International City/County Management Association (ICMA) "State of the Profession" survey. The statistical method of logistic regression was employed. The research findings indicate that the participation of CAOs, local government staff, and elected officials positively and significantly influences the application of performance information to strategic planning. Based on technical rationality, managerial effectiveness, and political accountability, internal stakeholders can generate a more significant effect on the use of performance information than external stakeholders.

Keywords: performance measurement, stakeholder participation, the application of performance information, strategic planning

I. INTRODUCTION

Using quantitative indicators to measure the results and efficiency of public programs is one possible approach to improving performance effectiveness (Broom et al., 1998; Hatry, 2000; Ho, 2003). In 1994, the Governmental Accounting Standards Board (GASB) issued the Concepts Statement No. 2 on Service Efforts and Accomplishment Reporting, which stated that performance information should be linked to local and state financial reporting, as well as to General Purpose External Financial Statements (GASB, 1994, paragraphs 38-49, 15-20). The purposes of adopting a performance measurement method are to evaluate, motivate, budget, control, learn and improve (Behn, 2003). In private sectors, the application of performance information simply reflects the pursuit of profit. In public sectors, the expectations of performance measurement are more complicated: measurements must consider not only organizational goals but also citizens' demands for evidence on program effectiveness (Wholey & Newcomer, 1997). The mechanism of performance management is related to "its symbolic value to elected officials and professional value to central agency actors" (Moynihan, 2008:14). In public organizations, the use of performance information can enhance management skills, with the role of integrative leadership facilitating decision-making with comprehensive information about task achievement (de Lancer Julnes & Holzer, 2001; Moynihan & Ingraham, 2004). Heinrich (1999) examined the use of performance information by public program administrators and found a link

Address correspondence to the author at iloveniatoo@gmail.com. View this article online at cpar.net

between the information and decisions about resource allocation. The behavior of contractors reflected incentivization, as they were aware of the rewards of pursuing organizational goals.

The question of the use of performance information is under consideration. One issue arises from the effect of stakeholders' participation in the use of performance information. Ho (2003) examined local actors' perceptions of performance measurement and the practice of performance reporting of cities with populations ranging from 10,000 to 100,000. The Government Finance Officers Association (GFOA) researched performance measures used by its municipal members (Tigue, 1994). Taylor (2011) used combined models to examine factors that influence the use of performance information in Australian state agencies and found that the use of performance information is impacted by stakeholder support, culture in public organizations, and the external environment. Van de Walle and Bovaird (2007) indicated that politicians, planners and top managers, among others, would be the main users of performance information, underlying the process of searching, analyzing, and summarizing the information before making decisions. Previous studies focused on professionalism and managerial capacity in performance measurement. Some explored participants' contribution to strategic plans, as well as the use of performance information regarding democratic control capacity, behavioral assumptions among interest groups, top management commitment, bureaucratic rationality and technocracy, and responsiveness to governmental reform (Moynihan, 2008; Van Dooren & Van de Walle, 2008; Van Dooren, Bouckaert, & Halligan, 2010).

This research is aimed at interest groups, administrators, and elected officials in their roles as external and internal stakeholders in the governmental systems. The purpose of this study is not only to look at the impact of diverse stakeholders on the use of performance information, but also to compare each type of participant and the effect of their actions. By undertaking these comparisons, the author hopes to clarify the main roles in the performance management action arenas. Focusing on the action outcomes of the key people becomes the essentials of the governmental reform dynamics.

This study asked two questions: "Does stakeholder participation in strategic planning enhance the use of performance information?" and "Does the participation of external stakeholders generate a different effect on the use of performance information than the participation of internal stakeholders?" The author attempts to answer these questions by examining whether the participation of interest groups, citizen groups, CAOs, local government staff, and elected officials affects the application of performance information to strategic planning. The unit of analysis is local government. Data are mainly collected from the International City/ County Management Association (ICMA) 2006 "State of the Profession" survey. The survey questionnaires were mailed to 8,003 municipalities and counties, with 2,870 local actors responding and generating a response rate of 35.9%. The sub-samples used for the analysis exclude those local governments that had no engagement in performance management activities. A hypothetical conceptual framework was designed to explore the effects of stakeholder participation on the application of performance information to strategic planning.

II. THE APPLICATION OF PERFORMANCE INFORMATION

Performance measurement provides feedback about the efficiency and effectiveness of public service (Kroll, 2015), and is inevitably linked to budgeting decisions, strategic planning, and citizen–government communication in public organizations. Performance budgeting emerges from diffusive innovation to elaborate program evaluation and extends political control over administrative resource allocation. Alfred Ho (2003) describes a three-stage performance-budgeting diffusion pattern: first, local governments must be aware of the effect of performance budgeting from neighboring jurisdictions; second, they must evaluate the feasibility and potential consequences of, as well as the capacity for, implementing performance budgeting; and finally, they may adopt and implement a performance budgeting system. The application

of performance budgeting has become popular in local governments. Both academic communities and professional organizations may advocate the formalization and standardization of performance measurement (ICMA, 1979; Hatry, 1980).

Performance measurement provides information to facilitate strategic planning and enhance the reform values in governmental effectiveness (Broadnax & Conway, 2000; Giddens, 1984; Jennings & Haist, 2004; Moynihan, 2005). Ongoing strategic activities emphasize planning, control, and evaluation to track the achievement of organizational goals. There are at least three applications of performance information that are linked to strategic planning: 1) to recognize good performance and bad performance; 2) to identify what is needed to improve; and 3) to compare performance outcomes with those from similar practices. In local governments, performance measurement provides information to help top management make strategic decisions (Backoff, Wechsler, & Crew, 1993; Gargan, 1989; Streib, 1992; Swanstrom, 1987). By monitoring ongoing activities, decision-makers can evaluate how well their employees achieve the goals of strategic/long-range plans, and adjust the plans accordingly. The use of performance measurement relates to stakeholders' democratic control over government activities (Yang, 2007). On one hand, measurement mechanisms provide systematic and useful information to inform citizens' involvement in strategic planning (Ho & Coates, 2004; Yang & Holzer, 2006). On the other hand, government authorities need performance information to establish a positive image of governmental reform (Moynihan, 2008); performance data is helpful in reflecting governmental effectiveness (Coutry & Marschke, 2004; Van Thiel & Leeuw, 2002). Citizens cannot form perceptions of governmental performance without performance information (Berman 1997; Bok, 1997; Weil, 1989; Glaser & Denhardt, 2000). According to Holzer and Callahan (1998), governments demonstrate their success with performance effectiveness as a way of facilitating citizen-government communication. Citizens' trust toward the government depends on information and evidence (Shaw & Reinhart, 2001). To maintain citizen trust in governments, governments must produce good performance outcomes, and more importantly, share the performance information with citizens.

Strategic plans "provide a systematic process for gathering information about the big picture and using it to establish a long-term direction and then translate that direction into specific goals, objects, and actions" (Poister & Streib, 2005: 46). Managerial decisions about strategic plans should be made on the basis of actual performance information (Bryson, 1995; Koteen, 1989; Nutt & Backoff, 1992; Osborne and Gaebler, 1992). A planning process should undertake a performance measurement process that scores and ranks functional departments according to their implementation capacity. Capacity indexes are naturally and inevitably linked to strategic planning and its adjustment. Kroll (2015) concluded from 25 recent empirical studies that several important factors drive the use of performance information. These drivers include stakeholder involvement, the maturity of the measurement system, and administrative variables such as leadership's support and capacity, the innovative culture within a department, and the clarity of organizational missions (p.469-473). Stakeholder-participants need performance measurement to evaluate goal achievement, chart priorities and validate the effect of action-oriented management. Performance information is tied up with stakeholders' interests and interaction dynamics; therefore, stakeholders may facilitate performance measurement activities and make the information visible.

III. STAKEHOLDER PARTICIPATION AND THE APPLICATION OF PERFORMANCE INFORMATION TO STRATEGIC PLANNING

In strategic planning, different stakeholders champion for their own visions and values. Several classifications of stakeholder-participants may be involved with the use of performance information for strategic planning: these are external stakeholders of both interest-group and citizen-group participants, and internal stakeholders of administrator and elected-official participants.

The following paragraphs address the theoretical hypotheses of this study.

Theoretical Hypotheses about Stakeholder Participation in Strategic Plans and the Use of Performance Information

Interest groups' participation in the development, update or review of strategic plans could facilitate the application of performance information to strategic planning. Interest groups are complex. Some may be professional or technical while others may not be. Competing interest groups may rely on different sources of performance information and apply the information toward their specific purposes and interests. According to North (1990), human interaction involves uncertainty and transaction costs. The collective decisions among various stakeholders in strategic planning require transparent information systems that reduce opportunism and distrust. Increasing the variety of interest-group participants in strategic planning increases complexity in negotiation; this also supports the need for performance information. Performance information acts as a necessary instrument for evaluating and monitoring action outcomes and ensuring the implementation of mutually agreed strategic plans.

The 2006 ICMA "State of the Profession" survey identifies participants in strategic plans as the following: "Chambers of Commerce," "private economic development foundations," "representatives from public schools, colleges, universities," and "private business representatives." These participants share one common characteristic: they are all advocacy coalitions, so each has its own beliefs, or at least secondary beliefs, about specific policy issues, interests or long-term social purposes (Sabatier & Weible, 2007). A private economic development foundation, for example, may consider the reduction of unemployment rates a priority in strategic plan outcomes. Representatives from educational institutions may prioritize training, educational issues and resource allocation focused on the reduction of educational inequality. The individual groups' political, faith-based or commercial perspectives motivate interest groups' actions. Continuous negotiation and communication emerge as tools to reach collective agreements amidst diverse interests. Political mobilization, compromise, and the interaction of power systems are brought into play.

Egoist assumptions (Ostrom, 1990) emphasize bounded rationality and the self-interested preferences of rational actors who would rather leave others worse off to create a distributive advantaged situation (Knight, 1992). Thus, a transparent information system is needed to avoid information asymmetry. Increasing the types of interest groups that participate in strategic planning is hypothesized as having a positive effect on the application of performance information to strategic planning.

Hypothesis 1-1: Interest groups' participation in strategic plans has a positive effect on the application of performance information to strategic planning.

The participation of citizen groups in strategic plans could also enhance the application of performance information to strategic planning. Citizens are characteristically demanding of government performance information: they want to know what the government does and how well it performs. Government administrators supply this information through a systematic measurement mechanism in response to citizen demands for accountability.

Dynamic governmental policy decisions and actions represent compromises between suppliers and demanders (Alston, 1996; Libecap, 1989). Citizens are one of the most important external stakeholders in governments (Yang & Hsieh, 2007; Fountain et al., 2003), and they have the right to access government performance information. Ryzin (2005) found that the gaps between government performance and citizen expectations are a reason for citizen dissatisfaction. Stakeholder satisfaction could be improved by establishing agreements about public organizations' strategic goals and objectives (Wholey, 1999) and transparent performance information systems for evaluating how well governments achieve these goals. In other words, citizens' engagement in governmental decision-making and access to performance

information can enhance their trust in democratic governance (Ho & Coates, 2004; Kelly & Swindell, 2002; Wholey & Hatry, 1992; Yang & Holzer, 2006).

The 2006 ICMA "State of the Profession" survey classifies citizen-group participants in strategic plans as "citizen advisory board/commissions" and "citizens and residents". These types of participants share a common characteristic: they are ordinary citizens with no distinct involvement in specific interest groups or bureaucratic systems. Rather than being driven by certain interests or policy preferences, citizen groups participate in strategic plans because they have a vision of the future for their community. Governmental performance information is also necessary for citizen engagement in strategic plans, to enhance democratic control over government behavior; without accessible performance information, citizen engagement becomes meaningless. Performance information reflects a governmental response to citizens' demand for long-range plans and a local vision. Therefore, citizen groups' participation in strategic plans is hypothesized as having a positive effect on the application of performance information to strategic planning.

Hypothesis 1-2: Citizen groups' participation in strategic plans has a positive effect on the application of performance information to strategic planning.

New Public Management (NPM) raises issues regarding how governments should be run; in some cases, the reinvention of government emphasizes managerial effectiveness and the application of performance information (Moynihan, 2006). CAOs especially need to coordinate and integrate resources and performance information to support governmental reform. According to Mechling and Fletcher (1996), support from the administration has a significant effect on innovation. Administrators and the network power can overcome any barriers to administrative reform. It is the commitment and technocratic reality of top management that facilitate government reform. The participation of local government staff and CAOs in strategic plans represents the pursuit of managerial effectiveness and efficiency (Ho, 2006; Berman & Wang, 2000; Yang & Hsieh, 2007). By reviewing performance information, administrators can ensure that all members of the organization are engaged in the same procedures toward the same organizational goals (Berman & Wang, 2000). Administrators' participation in strategic plans can also help overcome resistance to change (Fernandez & Rainey, 2006). It is managerial involvement that furthers the deployment of performance information (Ingraham, 1998; Rainey, 2003). To some extent, the participation of the staff and CAOs of local governments strengthens the application of performance information to strategic planning.

Hypothesis 1-3a: The CAO's participation in strategic plans has a positive effect on the application of performance information to strategic planning.

Hypothesis 1-3b: The participation of local government staff in strategic plans has a positive effect on the application of performance information to strategic planning.

Support from elected officials furthers the application of performance information (Aristigueta, 1997; Cope, 1997; Kettl, 1994). According to Moynihan (2008), the use of performance information has a symbolic value to elected officials. The inclusion of performance measurement in strategic plans demonstrates governmental accountability and responsiveness to demands for reform (Berman & Wang, 2000). Performance information provides evidence for a government's achievements and can help the political careers of elected officials. In campaigning for reelection, elected officials provide performance information to obtain citizen trust and support. The application of performance information, in this case, reflects the purpose of political control.

The George W. Bush administration's Program Assessment Rating Tool (PART) is an example of a president-initiated application of performance information (Dull, 2006). PART was designed to enhance the president's leverage in budget allocations and to demonstrate a commitment to governmental reform. In 2005, President Bush announced that "My

budget … substantially reduces or eliminates more than 150 government programs that are not getting results, or duplicate current efforts, or do not fulfill essential priorities. … Taxpayer dollars must be spent wisely" (Bush, 2005). The PART concept successfully linked performance information with strategic budget allocation (Dull, 2006).

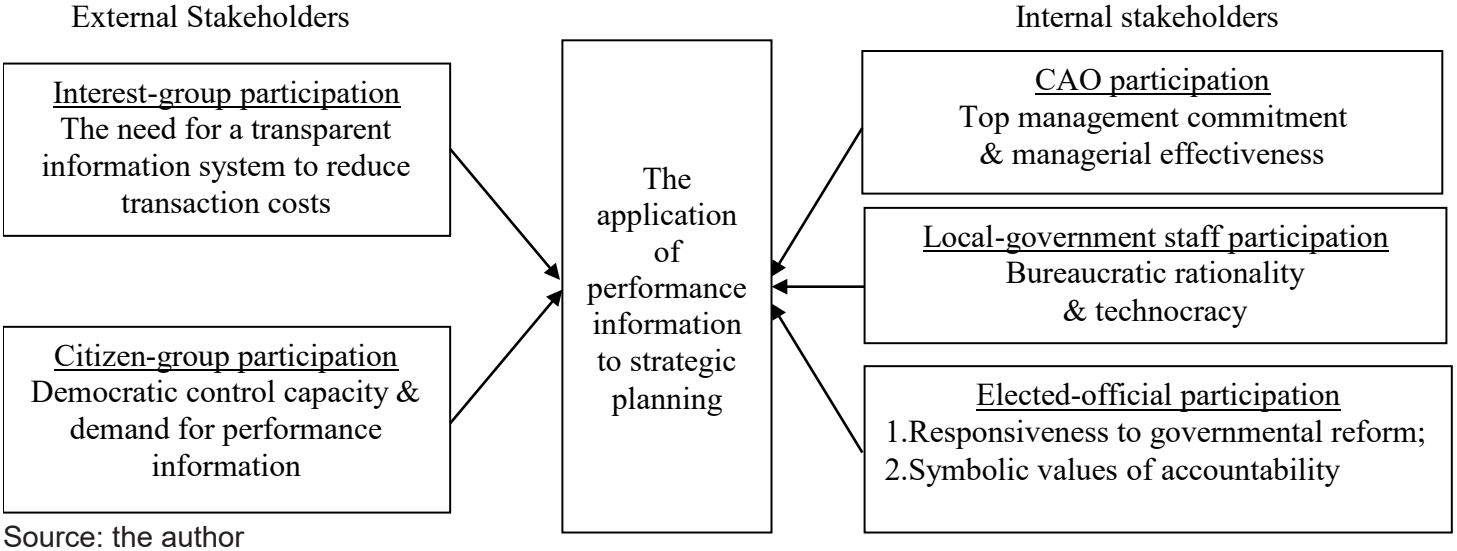
Elected officials with high power incentives (Williamson, 1985) can use performance information in two ways: both to demonstrate politicians' focus on governmental reform, and to enhance the capacity for political control over administrative systems. Personal interests and career incentives (such as reelection) can influence the use of performance information. According to Poister and Streib (2005), when asked which outcomes of strategic planning benefit jurisdictions, 73% of local respondents cited "maintaining public support" and 56% cited "maintaining supportive intergovernmental relations". Elected officials use performance information to track the implementation of strategic plans, with the intention of maintaining a supportive political environment.

Hypothesis 1-4: Elected officials' participation in strategic plans has a positive effect on the application of performance information to strategic planning.

Theoretical Hypotheses of the Difference between External and Internal Stakeholders' Participation in Strategic Plans

Compared to external stakeholders, internal stakeholders have a more significant effect on the link between performance information and strategic planning. Kroll (2015) indicated that results of measuring the impact of a politically competitive environment on the use of performance information were inconclusive in most previous studies. The external and political effect mostly were positive and insignificant (Johansson & Siverbo, 2009; Moynihan & Lavertu, 2012). External stakeholders, including interest groups and citizen groups, are consumers of performance information in the political market. They are on the 'demand' side of the equation, and ask for governmental reform and performance management (Berman & Wang, 2000; Bourdeaux & Chikoto, 2008; Ho, 2006; Moynihan & Hawes, 2012; Moynihan & Ingraham, 2004; Moynihan & Pandey, 2010; Yang & Hsieh, 2007). However, their access to performance information is dependent upon the actions of a government's internal stakeholders. External stakeholders can review government reports and highlight which parts are problematic, but they cannot decide what kind of information is presented or how it is ultimately used. Governments may avoid presenting problematic reports that are likely to

Figure 1. Summary of the Hypothesized Conceptual framework



Source: the author

provoke discussions about controversial issues.

Stakeholders have different interests and capacities. Competing interest groups may rely on different sources of performance information that benefit their own agenda (Knight, 1992). Although most interest groups would prefer a transparent information system to monitor action implementation, self-interest drives some interest groups to withhold information and prioritize individual interests over collective interests (North, 1990). Although citizen groups demand performance information, they may not understand technical reports. Without appropriate interpretation, performance reports can be useless. Moreover, questions about the reliability of performance reports, including potential censorship or manipulations, can undermine trust in the government. Performance information inevitably involves a degree of interest diversity among external-stakeholder participants, which can affect the reliability of performance information itself. This may also mean that internal stakeholders can generate a greater effect on the use of performance information in strategic planning.

Hypothesis 2: Compared to external stakeholders, internal stakeholders have a more significant effect on the use of performance information in strategic planning.

IV. VARIABLES, MEASUREMENT, AND DATA COLLECTION

Data for this study have been collected primarily from the 2006 ICMA "State of the Profession" survey for local U.S. governments and from 2000 U.S. Census Bureau information. The total number of samples from the ICMA dataset totaled 2870 local governments, including 1159 (40.38%) who have adopted performance management. This study uses these 1159 responses to examine the factors that influence the use of performance information in strategic planning.

The dependent variable in this study is the application of performance information to strategic planning, and the independent variables are external and internal stakeholders' participation in strategic plans. The operational definition of the dependent variable is the respondents' perception of the application of performance information on strategic planning. The operational definition of the independent variables is the measurement of the participation of external and internal stakeholders. Every type of external stakeholder (interest group or citizen group) and internal stakeholder (CAO, staff and elected official) could represent essential concepts of the visible participation fact.

Considering that local diversity may affect the use of performance information in the government, this study includes the following factors as control variables: forms of government, metropolitan status, poverty rate, race diversity, and educational attainment by citizens older than 25 years. It may help remove extraneous variation by holding these control variables constant. The following sections address the data collection and measurement of these variables.

Dependent Variable

The dependent variable in this research is the application of performance information to strategic planning (Yes=1; No=0). Data were collected from the 2006 ICMA "State of the Profession" survey. Question 12-A in the survey questionnaire asked: "How is the performance management and measurement information used?" If the answer was "strategic planning," it indicates that performance information is used in strategic planning (Y=1; otherwise N=0).

Independent Variables and Control Variables

The independent variables in this study are the participation of interest groups, citizen groups and internal stakeholders (including CAOs, local government staff, and elected officials) in strategic plans. Data were collected from the 2006 ICMA "State of the Profession" survey. Question 9 asked "Who participated in the development, update, or review of the strategic and/or long-range plan? (Please answer based on whether the most recent activity was a development of the plan or a review/update of the plan)." The following answers were categorized as interest-group participants: "Chamber of Commerce," "private economic development foundation,"

Table 1. Measurement of Dependent and Independent Variables

Variable	Measurement: Data from: ICMA "State of the Profession" 2006 Survey
Performance information is used in strategic planning	Q12. Does your local government engage in performance management and measurement activities? 1. Yes 2. No Q12-A. if "yes," how is the performance management and measurement information used? Answer: Strategic planning
Diversity of stakeholders	Summing up the total type of stakeholders.
External stakeholder participation in strategic plans	The method of principal factors is employed to generate the variables of external stakeholders from the raw data of "chamber of commerce, private economic development foundation, representatives from public schools, colleges and universities, private business representatives, citizen advisory board/commission and citizens and residents ". The rotation method is "Kaiser off". Eigenvalue= 2.86. Cronbach= 0.84.
Interest group participation in strategic plans	Q9. Who participated in the development, update, or review of the strategic and/or long-range plan? (Please answer based on whether the most recent activity was development of the plan or review/update of the plan) Answer: d. Chamber of Commerce; g. Private economic development foundation; h. Representatives from public schools, colleges, universities; i. Private business representatives Recoded: If any of the above is chosen, the variable "interest group" is recoded as 1.
Citizen group participation in strategic plans	Q9. Who participated in the development, update, or review of the strategic and/or long-range plan? (Please answer based on whether the most recent activity was development of the plan or review/update of the plan) Answer: e. Citizen advisory board/commission; f. Citizens and residents Recoded: If any of the above is chosen, the variable "citizen group" is recoded as 1.
Internal stakeholders' participation in strategic plans	The method of principal factors is employed to generate the variables of internal stakeholders from the raw data of "CAO participation in strategic plans", "local government staff participation in strategic plans" and "elected official participation in strategic plans". The rotation method is "Kaiser off". Eigenvalue= 2.19. Cronbach= 0.9.
CAO participation in strategic plans	Q9. Who participated in the development, update, or review of the strategic and/or long-range plan? (Please answer based on whether the most recent activity was development of the plan or review/update of the plan) Answer: b. Chief appointed official/manager
Local government staff participation in strategic plans	Q9. Who participated in the development, update, or review of the strategic and/or long-range plan? (Please answer based on whether the most recent activity was development of the plan or review/update of the plan) Answer: c. Local government staff (e.g., housing, planning, econ. dev.)
Elected official participation in strategic plans	Q9. Who participated in the development, update, or review of the strategic and/or long-range plan? (Please answer based on whether the most recent activity was development of the plan or review/update of the plan) Answer: a. Elected officials

Source: the author

Table 2. Factor Analysis

External Stakeholders	Factor Loading (Uniqueness)
Chamber of commerce	0.73(0.47)
Private economic development foundation	0.44(0.81)
Representatives from public schools, colleges and universities	0.78(0.39)
Private business representatives	0.80(0.36)
Citizen advisory board/commission	0.62(0.61)
Citizens and residents	0.71(0.50)
Eigenvalue(Proportion)	2.86(1.10)
Cronbach	0.84
Internal stakeholders	**Factor loading (Uniqueness)**
CAOs	0.87(0.24)
Staffs	0.79(0.37)
Elected officials	0.90(0.20)
Eigenvalue(Proportion)	2.19(1.09)
Cronbach	0.90

Method: Principal factors
Rotation: Oblique promax (Kaiser off)
Source: the author

"representatives from public schools, colleges, universities," and "private business representatives." If any of these were selected, the variable "interest group" was recoded (Y=1; otherwise N=0). The following answers were categorized as citizen-group participants: "citizen advisory board/commission" and "citizens and residents." If either of these was chosen, the variable "citizen group" was recoded (Yes=1; otherwise No=0). The answer "chief-appointed official/manager" was defined as a CAO participant. The answer "local government staff (e.g., housing, planning, economic development)" was categorized as having the participation of local government staff in strategic plans. The answer "elected officials" was categorized as elected-official participants. Finally, the variable "diversity of stakeholders" summed up the results about the types of stakeholders.

This study employs factor analysis to generate variables of external and internal stakeholder participation in strategic plans. The components of external stakeholder participation are the participation of interest groups and citizen groups in strategic plans. The components of internal stakeholder participation are the participation of CAOs, local government staff, and elected officials in strategic plans. The eigenvalues are 2.86 and 2.19 respectively. Table 1 shows the data sources and measurement of the dependent and independent variables. Table 2 shows the results of factor analysis.

The control variables are forms of government, metropolitan status, poverty, race (non-white population percentage) and level of education attained by the 25+-year-old population in the jurisdictions. Data were collected from the 2000 U.S. Census Bureau results and the 2006 ICMA "State of the Profession" survey. The "forms of government" control variable is based on the ICMA survey. Data are recoded as 1=council manager or council manager-administrator governments; 0=other forms of government. Data regarding metropolitan status are from the ICMA survey and are recoded as 3=central, 2=suburban, and 1=independent local governments. Data about poverty, race, and education are from the Census Bureau results. "Poverty" refers

Table 3. Descriptive Statistics

		Numbers of observation	Percentage
Performance information is used in strategic planning			
	Yes	524	45.21%
Types of interest group participants in strategic plans			
	4	63	5.44 %
	3	127	10.96 %
	2	124	10.7 %
	1	131	11.3 %
	0	714	61.6 %
Types of citizen group participants in strategic plans			
	2	387	33.39 %
	1	262	22.61 %
	0	510	44 %
CAO participation in strategic plans			
	Yes	870	75.06 %
Local government staff participation in strategic plans			
	Yes	825	912
Elected official participation in strategic plans			
	Yes	71.18 %	78.69 %

Source: the author

to the poverty rate in the jurisdictions. "Race" refers to the percentage of minority populations divided by the total population. Data about education are from Census Bureau results.

V. MODELING AND STATISTICAL RESULTS

The dependent variable, "the application of performance information to strategic planning," is a dummy variable (Yes=1; No=0); it is appropriate to use logistic regression to estimate the combined effect of the independent variables. Three logistic models were employed to predict the occurrence of the dummy dependent variable (Y=1) (Chatterjee & Hadi, 2006). These models use a cumulative logistic function to examine the linear-in-the-coefficient equation among the variables (Gujarati, 1992). Maximum likelihood estimation was used to maximize the likelihood of a set of parameters given the observed data (iterative process) (Kutner, Nachtsheim, Neter, & Li, 2005). The author uses a likelihood ratio test (LR test) to examine the fit of the logistic models. The results show that the logistic regressions are necessary if compared to the intercept-only models (LR Chi2=193.74, 239.75 and 240.08; P=0.00, 0.00 and 0.00 respectively).

Descriptive Statistics

Table 3 shows the descriptive statistics of the variables. Almost half of the respondents (N=524; 45.21%) have used performance information in strategic planning. More than half of the respondents (N=714; 61.6%) have no interest-group participation in strategic plans; the rest (N=445; 38.4%) cite the participation of interest groups. The types of interest groups participating ranged from 1 to 4. Almost half of local governments (N=649; 56%) have citizen-group participation in strategic plans. The types of citizen groups participating ranged from 1 to 2.

Table 4. The Logistic Models—Performance Information's Application to Strategic Planning

Variables	Odds Ratios (S.E.)	Odds Ratios (S.E.)	Odds Ratios (S.E.)
Diversity of stakeholders	**1.65***(0.07)**		
External stakeholders		1.11 (0.08)	
Interest groups			1.19(0.19)
Citizen groups			0.89(0.16)
Internal stakeholders		**3.76***(0.47)**	
CAOs			**2.33*(0.61)**
Staffs			**2.24***(0.46)**
Elected officials			**3.60***(1.14)**
Control Variables			
City	1.15(0.16)	1.11(0.16)	1.10(0.16)
Form of government	0.91(0.13)	0.87(0.12)	0.89(0.13)
Poverty	1.00*(0.00)	1.00*(0.00)	1.00*(0.00)
Race: % of non-white	1.00(0.00)	0.99(0.00)	0.99(0.00)
Metro. status	1.15(0.12)	1.06(0.12)	1.05(0.12)
Imputation of educational attainment for the population 25+ years	1.00*(0.00)	1.00*(0.00)	1.00*(0.00)
Observations	1159	1159	1159
Log likelihood	-701.16	-678.16	-677.99
LR Chi2 (degree of freedom)	193.74(7)	239.75(8)	240.08(11)
Prob > Chi2	0.00	0.00	0.00
Pseudo R2	0.12	0.15	0.15

*p<0.05, **p<0.01, ***p<0.001
Source: the author

Administrative participation in strategic plans was prevalent. Approximately three-fourths of local governments reported CAO participation in strategic plans (N=870; 75.06%), and administrative-staff participation in strategic plans (N=825; 71.18%). The highest proportion of participation in strategic planning was by elected officials, with 912 of the 1159 local governments (78.69%) involving them.

Results of the Logistic Models

Table 4 shows the results of the logistic models, estimating the outcomes of the application of performance information to strategic planning. The first model shows that with a one-unit increase in "diversity of stakeholder participation", the occurrence probability of the outcome variable increased by 65%. In the second model, which divides the predictors into external and internal stakeholders, the participation of internal stakeholders in strategic plans generates an increase of 3.76 times in the odds that performance information will be applied to strategic planning. In the third model, CAO, local government staff, and elected official participation in strategic plans has a positive and significant effect on the occurrence of the outcome variable. Municipal governments with CAO participation in strategic plans have 2.33 times better odds of applying performance information to strategic planning than those without CAO participation.

Municipal governments that use staff participation in strategic plans have 2.24 times better odds of applying performance information to strategic planning than those that don't. Municipal governments with elected officials' participation in strategic plans have 3.6 times better odds of applying performance information to strategic planning than those without elected officials' participation.

VI. FINDINGS AND DISCUSSION

The statistical results indicate that diversity in participation increases the probability of the use of performance information in strategic planning. Different stakeholders could use empirical evidence and implementation information in strategic planning for coordination and bargaining in decision-making arenas. CAO and staff participation in strategic plans has a significant effect, with an emphasis on "technocrat" tendencies. These players would be likely to link the information to scientific and systematic operations in order to enhance their management capacity.

Based on technocratic rationality, administrators need performance information to track the achievement of organizational goals. CAOs especially rely on performance information to coordinate cross-departmental actions. Interpreting performance information is the task of administrators, as part of their effort toward results-oriented administration. Functional areas that use performance measurement include police services, fire services, emergency medical services, animal control, housing services, water supply/sewage and solid waste services, street maintenance, traffic engineering, etc. (Poister & Streib, 1999). Administrators are specifically responsible for itemized performance measures. A focus on integration and coordination of performance effort demonstrates the efficiency of administrative systems.

Performance information can be especially meaningful when compared to a baseline. The baseline can be a historical record, a measure from a similar organization or a standard set by the legislature or political executives. Administrators may favor the use of performance information because it allows them to draw these comparisons, apply Tayloristic standards to control administrative systems, and demonstrate their success using the baseline as a metric.

Elected officials also favor the use of performance information: it not only demonstrates their efforts toward accountability but also enhances their capacity for political control over administrative systems. Elected officials use performance information to adjust resource allocation within the strategic plans. Especially, linking performance information to citizen-government communication helps elected officials create a positive image of themselves in reelection campaigns. Elected officials also use performance information to maintain their power systems and electoral support.

In the statistical models, internal stakeholder (CAO, local government staff, and elected official) participation in strategic plans has a significant positive effect on the application of performance information. Conversely, the participation of external stakeholders (citizen groups or interest groups) does not have a significant effect on the use of performance information in strategic planning. It is possible that external stakeholders are not focused on bureaucracy's implementation capacity in their strategic planning, but rather on the direction for the future of the community. They may prefer to focus on the big picture and have little interest in itemized resource allocation. Technical performance information is meaningful for CAOs, local government staff, and elected officials, but less so for citizen groups and interest groups.

Complexity among interest groups is one of the reasons for this. Interest group involvement may represent political compromise and the influence of external power systems. Competing interest groups may rely on different sources of performance information to construct their preferred strategic plans. In fact, interest-group participants may prefer to not have a transparent information system, to create a distributive advantage (Knight, 1992). Self-interested incentives and egoist assumptions may cause individual actors to focus on immediate pay-off (Ostrom, 1990). Self-

Table 5. Summary of Research Findings—The Application of Performance Information to Strategic Planning

Independent Variables	Theoretical Illustration	Statistical Results	Interpretation
Internal stakeholder participation			
Administrator participation	Management capacity & managerial effectiveness	"+" and significant	Administrators are suppliers of performance information, and would be likely to link the information to systematic decision making.
Elected- official participation	Political control capacity & responsiveness to governmental reform	"+" and significant	1. Performance information could be a useful instrument to enhance political control capacity. 2. Responsiveness and symbolic values of accountability.
External stakeholder participation			
Interest-group participation	The need for a transparent information system to reduce transaction costs	Not significant	1. Complexity among interest groups 2. Diverse preference: competing interest groups prefer different sources of performance information.
Citizen-group participation	Democratic control capacity & demand for performance information	Not significant	Without appropriate interpretation, technical performance information as well as technical knowledge may be useless to ordinal citizens.

Source: the author

interested actors, especially those with high power incentives (Williamson, 1985), would prefer to focus on selected interests (corresponding to individual preferences) rather than collective interests (collective decisions in strategic plans).

Interest group participation in strategic planning would not be necessary to enhance the application of performance information—especially the use of such information is to establish long-term strategic planning goals. The use of performance information as part of a transparent information system would create barriers to accomplishing short-term individual goals because the aims would be overseen by the other sides. In using a transparent performance information system, no one can benefit from information asymmetry.

Citizen engagement in strategic plans does not have any statistically significant effect on the use of performance information in strategic planning. It is possible that technical performance information is not meaningful to most citizens. To avoid misinterpretation, bureaucracies would rather not share technical knowledge with citizen groups. Theoretically, performance information enhances democratic control over the behavior of governments, but if citizens misinterpret the accessible performance information, it could damage democratic control capacity and destroy trust between citizens and the government. The nature of performance information is highly related to different stakeholders' interests and capacity. In the context of strategic planning, citizen groups want to provide their local knowledge for decision-making but may not have the technical knowledge to apply performance information appropriately.

Table 5 summarizes the research findings concerning the use of performance information in strategic planning.

VII. CONCLUSION

To conclude: the concern for management capacity and effectiveness enhances the application of performance information to strategic planning. The involvement of citizen and interest groups is not conclusively impactful. The lesson from examining the effects of external stakeholder participation is that they may pay attention to the big picture of the local future rather than to the government's itemized implementation capacity. Interest-group involvement is more complex. Competing interest groups may use different sources of performance information to create distributive advantages. Individual bounded rationality may lead to the pursuit of specific, individual interests in strategic plans, rather than collective interests.

The policy implication is that the main players in sharing performance information, as well as the audiences, are the internal actors of bureaucratic systems. Extending the participation patterns of CAOs, local government staff, and elected officials could be a useful approach for enhancing the application of performance information. This study has determined the impact of external stakeholders on the use of performance information to be inconclusive. It is possible that only the performance data revealed through comprehensive reports, and linked to a shared local vision, could make citizen group participation meaningful. Although political competition among interest groups generates an inconclusive effect on the application of performance information, the value of their participation is in delivering the message of their policy preferences. The role of external stakeholders is to oversee the outcomes of performance management and governmental reform, rather than to use performance information or management skills.

Using secondhand data creates some limitations for this research. The data are mainly collected from the 2006 ICMA "State of the Profession" survey. Dichotomous values represent some measurements: Yes or No (1/0). Respondents could not convey a partial or incomplete response, nor indicate the intensity of the variable effect. Therefore, values between "yes" and "no" might be missing. The discussion of participation strength, as well as power diversity from the stakeholders, is simplified by the participation fact, instead of the degree of the power effect. Research findings could not reflect the complexity of stakeholder power in strategic planning decisions. Other variables may also influence the application of performance information. Political issues, professionalism, and management capacity issues, local background conditions and specific local preferences may all have a diverse impact on the operation of local administrative systems. Due to the timeframe and resource limitations of this research, it was difficult to include these variables in order to more broadly discuss the use of performance information in strategic planning.

Despite these limitations, this article provides some new insights for public management in local governments. The authors applied empirical data to examine and depict whether interest-group, citizen-group, CAO, staff, and elected-official participation in strategic plans have a positive effect on the application of performance information. In future research, it may be useful to consider more variables, extend the scope of the research, and consider multiple issues related to performance management research.

REFERENCES

Adams, Gordon. (1981). The Iron Triangle: The Politics of Defense Contracting, Council on Economic Priorities, New York: St. Martin's Press.

Alston, L. J. (1996). Empirical Work in Institutional Economics. In Alston, L. J., T. Eggertsson, & D. C. North (eds.), Empirical Studies in Institutional Change (pp. 25-30). Cambridge: Cambridge University Press.

Aristigueta, Maria Pilar. (1997). Managing for Results in the States. Doctoral dissertation, Department of Public Administration, University of Southern California, California.

Backoff, Robert, Barton Wechsler and R.E.J. Crew. (1993). The Challenge of Strategic Management in Local Government. Public Administration Quarterly, 17(2), 127-145.

Behn, Robert D. (2003). Why Measure Performance? Different Purposes Require Different Measures.

Public Administration Review, 63 (5), 586-606.
Berman, Evan. (1997). Dealing with Cynical Citizens. Public Administration Review, 57(2), 105-112.
Berman, Evan and Xiaohu Wang. (2000). Hypotheses about Performance Measurement in Counties: Findings from a Survey." Journal of Public Administration Research and Theory, 11(3), 403-428.
Bok, Derek. (1997). Measuring the Performance of Government. In Joseph S. Nye, Jr., Philip D. Zelikow and David C. King (eds.), Why People Don't Trust Government (pp. 55-75). Cambridge, MA: Harvard University Press.
Bourdeaux, C., & G. Chikoto. (2008). Legislative Influences on Performance Management Reform. Public Administration Review, 68(2), 253-265.
Broadnax, W. D. and K. J. Conway. (2000). The Social Security Administration and Performance Management. In D. W. Forsythe (ed.), Quicker, Better, Cheaper: Managing Performance in American Government (pp. 143-176). Albany: Rockefeller Institute Press.
Broom, Cheryle, Marilyn Jackson and Jody Harris, et al. (1998). Performance Measurement: Concepts and Techniques (3rd Ed.). Washington, DC: Center for Accountability and Performance, the American Society for Public Administration.
Bryson, John M. (1995). Strategic Planning for Public and Nonprofit Organization: A Guide to Strengthening and Sustaining Organizational Achievement (Rev. Ed.). San Francisco: Jossey-Bass.
Bush, George W. (2005). State of the Union Address. February 2, 2009. Retrieved from http://www.whitehouse.gov/news/releases/2005/02/2005200-11.html
Chatterjee, Samprit and Ali Hadi. (2006). Regression Analysis by Example. New Jersey: John Wiley &Sons, Inc..
Conlan, T. (1998). From New Federalism to Devolution: Twenty Five Years of Intergovernmental Reform. Washington, DC: Brookings Institution Press.
Cope, Glen H. (1997). "Bureaucratic Reform and Issues of Political Responsiveness. Journal of Public Administration Research and Theory, 7, 461-471.
Coutry, P. and G. Marschke. (2004). An Empirical Investigation of Gaming Responses to Performance Incentives. Journal of Labor Economics, 22(1), 23-56.
de Lancer Julnes, P., & M. Holzer. (2001). Promoting the Utilization of Performance Measures in Public Organizations: An Empirical Study of Factors Affecting Adoption and Implementation. Public Administration Review, 61(6), 693-708.
Dull, Matthew. (2006). Why PART? The Institutional Politics of Presidential Budget Reform. Journal of Public Administration Research and Theory, 16, 187-215.
Fernandez, Sergio and Hal G. Rainey. (2006). Managing Successful Organizational Change in the Public Sector. Public Administration Review, 66(2), 168-176.
Fountain, James, Wilson Campbell, Terry Patton, Paul Epstein and Mandi Cohn. (2003). Reporting Performance Information: Suggested Criteria for Effective Communication. Norwalk, CT: Government Accounting Standards Board.
Gargan, John J. (1989). Strategic Management in City Government: Continuing the Interplay of Rationality and Politics. In Jack Rabin, Gerald J. Miller and W. Bartley Hildreth (eds.), Handbook of Strategic Management (pp.493-523). New York: Marcel Dekker.
Gelman, Andrew and Iain Pardoe. (2007). Average Predictive Comparisons for Models with Nonlinearity, Interactions, and Variance Components. Sociological Methodology, 37(1), 23-51.
Glaser, Mark and Robert Denhardt. (2000). Local Government Performance through the Eyes of Citizens. Journal of Public Budgeting, Accounting and Financial Management, 12(1), 49-73.
Governmental Accounting Standards Board (GASB). (1994). Concepts Statement No.2 on Concepts Related to Service Efforts and Accomplishments Reporting. Norwalk, CT.: GASB.
Giddens, A. (1984). The Constitution of Society. Berkeley: University of California Press.
Gujarati, Damodar. (1992). Essentials of Econometrics. New York, NY: McGraw-Hill, Inc.
Hanmer, Michael J. and Kerem Ozan Kalkan. (2013).

Behind the Curve: Clarifying the Best Approach to Calculating Predicted Probabilities and Marginal Effects from Limited Dependent Variable Models. American Journal of Political Science, 57(1), 263-277.

Hatry, Harry. (1980). Performance Measurement Principles and Techniques—An Overview for Local Government. Public Productivity Review, 4(2), 312-339.

Hatry, Harry. (2000). Performance Measurement: Getting results. Washington, DC: The Urban Institute.

Hayden, F. Gregory. (2002). Policymaking Network of the Iron-Triangle Subgovernment for Licensing Hazardous Waste Facilities. Journal of Economic Issues, 36 (2), 477-484.

Heinrich, Carolyn J. (1999). Do Government Bureaucrats Make Effective Use of Performance Management Information? Journal of Public Administration Research and Theory, 9(3), 363-393.

Ho, Alfred. (2003). Perceptions of Performance Measurement and the Practice of Performance Reporting by Small Cities. State and Local Government Review, 35(2), 161-173.

Ho, Alfred T. (2006). Accounting for the Value of Performance Measurement from the Perspective of Midwestern Mayors. Journal of Public Administration Research and Theory, 16(2), 217-238.

Ho, Alfred T. and Paul Coates. (2004). Citizen-initiated Performance Assessment: The Initial Iowa Experience. Public Performance and Management Review, 27 (3), 29-50.

Holzer, Marc, & Kathy Callahan. (1998). Government at Work. Thousand Oaks, CA: Sage Publications.

International City Management Association (ICMA). (1979). Using Productivity Measurement: A Manager's Guide to More Effective Services. Washington, DC: International City Management Association.

Ingraham, Patrcia W. (1998). Transforming Management, Managing Transformation. In Patricia W, Ingraham, James R. Thompson and Ronald P. Sanders (eds.), Transforming Government, Lessons from the Reinvention Laboratories (pp. 241-256). San Francisco: Jossey-Bass.

Jennings, E. and M. P. Haist. (2004). Putting Performance Measurement in Context. In P. W. Ingraham and L. E. Lynn, Jr. (eds.), The Art of Governance: Analyzing Management and Administration (pp. 152-194). Washington, DC: Georgetown University Press.

Johansson, T., & S. Siverbo. (2009). Explaining the Utilization of Relative Performance Evaluation in Local Government: A Multi-Theoretical Study Using Data from Sweden. Financial Accountability & Management, 25(2), 197-224.

Kelly, Janet M. and David Swindell. (2002). A Multiple-indicator Approach to Municipal Service Evaluation: Correlating Performance Measurement and Citizen Satisfaction across Jurisdictions. Public Administration Review, 62(5), 610-621.

Kettl, Donald. (1994). Reinventing Government? Appraising the National Performance Review. Washington, DC: Brookings.

Knight, J. (1992). Institutions and Social Conflict. New York: Cambridge University Press.

Koteen, Jack. (1989). Strategic Management in Public and Nonprofit Organizations: Thinking and Acting Strategically on Public Concerns. New York: Praeger.

Kroll, Alexander. (2015). Drivers of Performance Information Use: Systematic Literature Review and Directions for Future Research. Public Performance & Management Review, 38, 459-486.

Kutner, Michael H., Christopher L. Nachtsheim, John Neter and William Li. (2005). Applied Linear Statistical Models. New York, NY: McGraw-Hill, Inc.

Libecap, Gary. (1989). Contracting for Property Rights. New York: Cambridge University Press.

Mechling, Jerry and Thomas M. Fletcher. (1996). Information Technology and Government: The Need for New Leadership. Cambridge, MA: John F. Kennedy School of Government, Harvard University.

Moynihan, Donald P. (2005). Goal-based Learning and the Future of Performance Management. Public Administration Review, 65(2), 203-216.

Moynihan, Donald P. (2006). Managing for Results in State Government: Evaluating a Decade of Reform.

Public Administration Review. 66(1), 78-90.
Moynihan, Donald P. (2008). The Dynamics of Performance management. Washington DC.: Georgetown University Press.
Moynihan, D., & D. Hawes. (2012). Responsiveness to Reform Values: The Influence of the Environment on Performance Information Use. Public Administration Review, 72(sl), 95-105.
Moynihan, D., & P. Ingraham. (2004). Integrative Leadership in the Public Sector: A Model of Performance-information Use. Administration & Society, 36(4), 427-453.
Moynihan, D., & S. Lavertu. (2012). Does Involvement in Performance Management Routine Encourage Performance Information Use? Evaluating GFRA and PART. Public Administration Review, 72(4), 592-602.
Moynihan, D., & S. Pandey. (2010). The Big Question for Performance Management: Why do Managers Use Performance Information? Journal of Public Administration Research and Theory, 20(4), 849-866.
North, Douglass C. (1990). Institutions, Institutional Change and Economic Performance. New York: Cambridge University Press.
Nutt, Paul C. and Robert W. Backoff. (1992). Strategic Management of Public and Third Sector Organizations: A Handbook for Leaders. San Francisco: Jossey-Bass.
Osborne, David and Gaebler Ted. (1992). Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector. Reading, MA: Addison-Wesley.
Ostrom, E. (1990). Governing the commons: The Evolution of Institutions for Collective Action. New York: Cambridge University Press.
Poister, Theodore H. and Gregory Streib. (1999). Performance Measurement in Municipal Government: Assessing the State of the Practice. Public Administration Review, 59(4), 325-335.
Poister, Theodore H. and Gregory Streib. (2005). Elements of Strategic Planning and Management in Municipal Government: Status after Two Decades. Public Administration Review, 65(1), 45-56.
Rainey, Hal G. (2003). Understanding and Managing Public Organizations (3rd Ed.). San Francisco: Jossey-Bass.
Rogers, Everett M. (1995). Diffusion of Innovation (4th Ed.). New York: Free Press.
Ryzin, Gregg G. Van. (2005). Testing the Expectancy Disconfirmation Model of Citizen Satisfaction with Local Government. Journal of Public Administration Research and Theory, 16, 599-611.
Sabatier, Paul A and Christopher M. Weible. (2007). The Advocacy Coalition Framework: Innovations and Clarifications. In Paul A. Sabatier (ed.), Theories of the Policy Process (pp.189-222). Colorado, Boulder: Westview Press.
Shaw, Greg and Stephanie Reinhart. (2001). The Polls-trends: Devolution and Confidence in Government. Public Opinion Quarterly, 65(3), 367-388.
Streib, Gregory. (1992). Applying Strategic Decision Making in Local Government. Public Productivity and Management Review, 15(3), 341-355.
Swanstrom, Todd. (1987). The Limits of Strategic Planning for Cities. Journal of Urban Affairs, 9(2),139-157.
Taylor, J. (2011). Factors Influencing the Use of Performance Information for Decision Making in Australian State Agencies. Public Administration, 89(4), 1316-1334.
Tigue, Patricia. (1994). Use of Performance Measures by GFOA Members. Government Finance Review, (December), 42-44.
Van de Walle, S., & T. Bovaird. (2007). Making Better Use of Information to Drive Improvement in Local Public Services: A Report for the Audit Commission. Project Report. INLOGOV. February 19, 2009. Retrieved from file:///C:/Users/user/Downloads/SSRN-id1347349.pdf
Van Dooren, W., G. Bouckaert, & J. Halligan. (2010). Performance Management in the Public Sector. London: Routledge.
Van Dooren, W., & S. Van de Walle. (Eds.). (2008). Performance Information in the Public Sector. How It is Used. Hampshire, UK: Palgrave Macmillan.
Van Thiel, S. and F. L. Leeuw. (2002). The Performance Paradox in the Public Sector." Public Productivity and Management Review, 25(3), 267-281.
Weil, Frederick. (1989). The Sources and Structure of Legitimation in Western Democracies. American Sociological Review, 54(5), 682-706.

Wholey, Joseph S. (1999). Performance-based Management: Responding to the Challenges. Public Productivity and Management Review, 22(3), 288-307.

Wholey, Joseph S. and Harry P. Hatry. (1992). The Case for Performance Monitoring. Public Administration Review, 52(6), 604-610.

Wholey, Joseph S. and Kathryn E. Newcomer. (1997). Clarifying Goals, Reporting Results. In Kathryn E, Newcomer (ed.), Using Performance Measurement to Improve Public and Nonprofit Programs (pp.91-98). San Francisco, CA: Jossey-Bass.

Williamson, Olivier. (1985). The Economic Institutions of Capitalism. New York: Free Press.

Yang, Kaifeng. (2007). Making Performance Measurement Relevant. In Patria de Lancer Julnes, Fran Berry, Maria Aristigueta and Kaifeng Yang (eds.), International Handbook of Practice-Based Performance Management (pp.173-188). Thousand Oaks: CA: Sage Publications.

Yang, Kaifeng and Marc Holzer. (2006). The Performance-Trust Link: Implications for Performance Measurement. Public Administration Review, 66(1), 114-126.

Yang, Kaifeng and Jun Yi Hsieh. (2007). Managerial Effectiveness of Government Performance Measurement: Testing a Middle-Range Model. Public Administration Review, (September/ October), 861-879.

ABOUT THE AUTHOR

Ssu-Hsien Chen (Olivia) was born in Taipei, Taiwan. She has a B.A. degree in Philosophy, minor in Business Management from Fu Jen Catholic University, a M.P.A. degree in Public Affairs from Ming Chuan University, and a Ph.D. degree in Public Administration and Policy from Florida State University. She is an Assistant Professor in the Department of Public Administration and Policy at National Taipei University, Taiwan. Her research interests include policy analysis, local/ metropolitan governance, energy policies, interlocal networks and interactions, and the use of performance measurement in public sectors.