

# **A CASE STUDY OF LOCAL E-GOVERNMENT PERFORMANCE IN SOUTH KOREA:**

## **DO LEADERSHIP AND MANAGEMENT FOR RESULTS MATTER?**

Soonhee Kim

### **ABSTRACT**

*This study explores the influence of executive e-government leadership, management capacity, and management for results on employees' perceptions of electronic-government performance in a local district in the Seoul Metropolitan Government, South Korea. The key finding from this study is that executive e-government leadership, management for results, IT capacity, and employee commitment are all important factors affecting employee perceptions of local e-government performance. The mayor's e-government leadership in terms of communicating a clear vision for e-government innovation and IT capacity are positively associated with employees' perceptions of e-government service quality, transparency, and cost-efficiency. This study also found that employees' identification commitment with the organization is positively associated with their perceptions of e-government service quality and transparency. Furthermore, the results of this study indicate that management for results is the most significant factor affecting the perceived performance of e-government. Lessons and implications of this study for future studies of e-government performance are presented.*

### **INTRODUCTION**

Government service delivery is undergoing change as a result of innovations in Information Technology (IT). Scholars and practitioners have paid attention to electronic-government (e-government) as a strategic tool for delivering services through the Internet and thus enhancing service quality as well as streamlining internal operations (Council for Excellence in Government [CEG], 2000; Center for Technology in Government, 1999; Ho, 2002; Norris & Moon, 2005; West, 2004). Many local governments have also initiated e-government development and taken advantage of internet-based applications to facilitate community development and communication with constituents (Benjamin, 2001; Ranerup, 2001; Modesitt, 2002) as well as to provide online application services (Ho, 2002; Norris & Moon, 2005). E-government brings with it the potential for greater cost-efficiency, enhanced citizen involvement, improved service quality, and increased transparency. Although e-government has the potential to provide many benefits, little research has been conducted on e-government performance and the influence of public management on e-government performance in local government.

How do local government employees perceive e-government performance in terms of improved service quality, transparency, and cost-efficiency? And what is the impact of

public management on the perception of local e-government performance? Based on an employee survey of a local district in the Seoul Metropolitan Government, South Korea, this study explores how three factors, elective executive leadership, management capacity, and management for results, affect employee perceptions of local e-government performance. In terms of employee perceptions of local e-government performance, this paper focuses on the quality of e-government service, transparency and cost-efficiency.

Scholars and practitioners hypothesize that leadership is an essential ingredient for successful adaptation of technology by government and that executive leaders should prepare effective plans and targets to provide a road map for future e-government development (Fountain, 2001; National Electronic Commerce Coordinating Council [NECCC], 2000a; Modesitt, 2002; O’Looney, 2002; Perlman, 2002; Wescott, 2007). For example, Fountain (2001) and O’Looney (2002) argue that the transformation to e-government requires organizational leaders’ commitment and willingness to change entrenched public structures and transaction processes. Leadership, then, must be viewed as a necessary component to building e-government capabilities and such leadership could originate with elected officials. This study explores how elected executive leadership affects employee perceptions of local e-government performance.

As a result of the emphasis on performance and results-oriented government services, researchers in public administration and government agencies have stressed the need to understand the ways in which management capacity and processes can contribute to the improved innovation and performance potential (Hou, Moynihan, & Ingraham 2004; Ingraham, Joyce & Donahue, 2003; O’Toole & Meier, 1999; Walker & Boyne, 2006). Ingraham et al (2003) define management capacity as a government’s ability to develop, direct, and control its resources to support the discharge of its policy and program responsibilities. Accordingly, they argue that management capacity is a necessary antecedent to effectiveness in government organizations because it shapes and supports longer-term performance capabilities (Ingraham, Joyce & Donahue, 2003). In this study, information technology (IT) capacity and human resource management (HRM) capacity as they relate to perceived e-government performance are analyzed. While this paper defines IT capacity as the level of IT resources, financial resources, and know-how of e-government services, HRM capacity here is concerned with fair reward systems and the organizational commitment of employees. This paper also explores the level at which management for a result is applied to e-government development, and the impact it has on employee perceptions of local e-government performance. In light of the rapid speed with which e-government innovations evolve, management for results is an important and challenging task.

The local government selected for this study was the Gangnam-gu district (hereafter referred to as “Gangnam-gu”) located in the Seoul Metropolitan Government, South Korea. The local government is home to 550,000 citizens and is known as the nation’s financial and business center. The National Committee of E-Government Development in South Korea recognized e-government development in Gangnam-gu as the Best E-Government Practice in the country for three consecutive years, starting in 2001. Furthermore, the Intelligent Community Forum, a nonprofit think-tank located in the United States, selected Gangnam-gu as one of the Top Seven Intelligent Communities of 2006 in recognition of its successful e-government innovations (Intelligent Community Forum, 2006).

After reviewing the literature on e-government performance, e-government leadership, management capacity, and management for results, this paper presents several research hypotheses and discusses findings. Finally, it presents lessons and implications of the study for effective local e-government development.

## **E-GOVERNMENT PERFORMANCE AND HYPOTHESES**

E-government is viewed as a process with great potential for improving public service delivery to individual citizens. In 2001 the American Society for Public Administration (ASPA) and the United Nations (UN) offered five guiding principles for e-government development: a) building services around citizen's choices, b) making governments and their services more accessible, c) social inclusion, d) information responsibility, and e) the effective and efficient use of information technology (IT) and human resources (UN & ASPA, 2001). This paper focuses on three dimensions of e-government performance in local government, including service quality, transparency, and cost-efficiency.

One of the goals of e-government development in local government is to improve service quality by focusing on customers. A customer focus emphasizes that e-government services are developed in light of demand and user value. Also, the customer focus implies that the Internet can facilitate effective relationships between citizens and government by enabling governments to appear as a unified organization and provide seamless online services (Organization for Economic Co-operation and Development [OECD], 2003). For instance, Birch (2003) notes that most local authorities (91%) in England see e-government as a vehicle for improving accessibility to local authority and services.

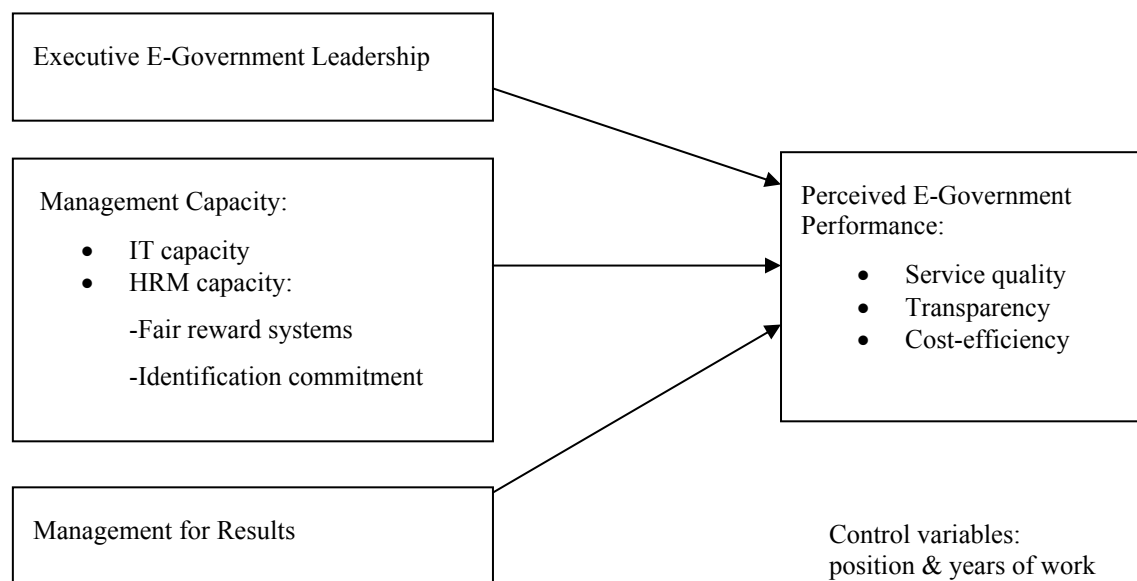
E-government development also focuses on citizen access to public information; data sharing among public, private, and non-profit sectors; private-public partnerships; and eliciting citizen input using IT. The NECCC (2000b) found that the sharing of data among public agencies and private vendors is essential to creating a system in which citizens can gain access to government information and services through a single portal. E-government applications can help reduce corruption and increase openness and trust in government by enabling citizen engagement in the policy process and allowing an individual's voice to be heard in a broad debate (OECD, 2003). For example, in the case of Seoul Metropolitan E-Government, transparency is a central value in e-government that can be summarized by processing all public administration services through e-government and minimizing direct contact between civil servants and civil service applicants (Seoul Institute for Transparency, 2008). While increased citizen input may help establish greater public trust in government and encourage more efficient public service delivery, the challenge remains of how to provide public access to e-government services. In response to the digital divide, governments at all levels must decide to what extent they wish to ensure equal access to e-government services, how to provide that access, whether such access should be provided through government partnerships with the private sector, and how to pay for it (Kim and Kim, 2003).

Cost-efficiency is another potential benefit expected from e-government application in public organizations (OECD, 2003; Wescott, 2007). Internet-based applications can not only generate savings on data collection, data transmission, and provision of information to and communication with customers, but can also enhance government

efficiency through greater sharing of data within and between governments (OECD, 2003). Furthermore, Birch (2003) notes that local e-government has the potential to increase the speed and efficiency of internal local authority processes by allowing local authorities to rethink and improve the way the agency works. The e-government research on local authorities in England, however, reveals that local authorities have the perception that e-government has had a much greater impact externally than on the costs and efficiencies associated with internal processes (Birch, 2003).

This study explores the impact of executive e-government leadership, management capacity, and management for results on the perception of e-government performance in the areas of service quality, transparency, and cost-efficiency (Figure 1).

**Figure 1: Research Framework**



## EXECUTIVE LEADERSHIP OF E-GOVERNMENT INNOVATION

The e-government transformation now underway requires cross-jurisdictional collaboration and alliance, matrix or virtual organizations, reengineering of business operation processes, integration of public services, and constant monitoring and updating feedback (Fountain, 2001; O’Looney, 2002). Such a transformation, however, requires organizational leaders’ commitment and willingness to change entrenched public structures and transaction processes. Perlman (2002) notes that the active engagement of elected officials is essential if government is to resolve the challenges of technology management. Scholars and practitioners anticipate that more elected officials will take the lead in using e-government tools to promote civic engagement and encourage citizen participation (National Electronic Commerce Coordinating Council, 2000; Modesitt, 2002; O’Looney, 2002).

Practitioners of IT management emphasize that visionary leadership, joined with thoughtful planning and monitoring, can make e-government a useful vehicle for government services and information. Transformational leadership theory emphasizes organizational leaders as change agents who initiate and implement new directions

within organizations. Based on a study of 12 CEOs in private corporations, Tichy and DeVanna (1990) indicate that leaders need to break down old structures and establish new ones to implement new vision and ideas. They also emphasize that the breaking down of old structures may require the leader to create new coalitions of employees who will be compatible with the new vision. This study explores the impact of executive e-government leadership on employees' perceptions of e-government performance. Executive e-government leadership is defined as a significant facilitator of e-government development who has a clear vision and stimulates innovative ideas

*Hypotheses 1a-1c:* The mayor's leadership of e-government innovation is positively associated with the perception of e-government performance in terms of service quality (1a), transparency (1b), and cost-efficiency (1c).

### **MANAGEMENT CAPACITY: IT CAPACITY AND HRM CAPACITY**

Scholars and practitioners note that the success of an e-government strategy may depend largely on its ability to develop IT capacity, including IT resources, financial resources, and know-how to implement e-government services (Center for Technology in Government [CTG], 1999; Kim & Bretschneider, 2004; Broadbent & Weill, 1999). IT resources are the source of the capabilities that enable an organization to implement e-government transformation because they permit the organization to develop system and process prototypes (Caffrey, 1996). According to Grant (1991), the resources for IT capacity could include capital equipment, financial resources, and the skills of individual employees. Local governments can create public value by developing capabilities to assemble resources to support e-government development strategies.

Mohr (1969) notes that the availability of financial resources is one of the strongest predictors of innovation. For organizational innovation, especially for adopting advanced IT, financial support is indispensable to procuring and developing adequate levels of hardware and software, and training end-users as needed (Kim and Bretschneider, 2004). Broadbent and Weill (1999) point out that IT capacity includes both the technical and managerial expertise required to provide reliable IT-enabled services. The use of technology to solve a specific problem or to perform a particular function also demands adequate knowledge of e-government service development (Kim & Bretschneider, 2004). Barki et al. (1993) note that strong technical skills and expertise in the hands of the project leader and some team members is critical. This study explores the impact of IT capacity, including IT resources, financial resources, and technical know-how in the work unit, on e-government performance.

*Hypotheses 2a-2c:* IT capacity is positively associated with the perception of e-government performance in terms of service quality (2a), transparency (2b) and efficiency (2c).

HRM capacity in government could be assessed in terms of several criteria, including workforce planning, workforce hiring, sustaining the workforce, motivating the workforce, and structuring the workforce (Donahue, Selden, & Ingraham, 2000). This paper is focused on the criteria of motivating the workforce, especially through fair reward systems and the development of employees' organizational commitment. Neely (1998) argues that the main functions of performance-based reward systems are a) to increase the involvement of and communication among all organizational units in a targeted setting; and b) to collect, process, and deliver information on the performance of organizational units, activities, processes, products, and services. Several researchers (Blau, 1999; Daley, 1986; Organ, 1988) have also emphasized the importance of performance appraisal fairness in determining employees' job satisfaction. For example, based on a survey of Iowa public employees, Daley (1986) found that performance appraisal fairness is positively associated with job satisfaction. Organ (1988) also argued that employee satisfaction with the performance appraisal process is, logically, related to the perceived "fairness" of this process. On the other side, Blau (1999) noticed that performance appraisal satisfaction seems to be an important "process" satisfaction facet affecting composite "outcome" satisfaction facets, such as pay, job security, the work itself, and other working conditions. To further explore the impact of fair performance-based reward systems on the perception of e-government performance, the following hypotheses are established and tested in this study:

*Hypotheses 3a-3c:* Fair reward for employee performance is positively associated with the perception of e-government performance in terms of service quality (3a), transparency (3b), and efficiency (3c).

Scholars have found that the level of commitment employees feel towards their organization is positively associated with performance (Larson & Fukami, 1984; Van Maanen, 1975) and negatively related to absenteeism and turnover (Koch & Steers, 1978; Mowday et al., 1979). Scales for measuring organizational commitment ask whether the respondent sees the organization's problems as his or her own, whether he or she feels a sense of pride in working for the organization, and similar questions (Mowday, Porter, & Steers, 1982). Mowday, Porter, and Dubin (1974) note that committed employees take pride in organizational membership and believe in the goals and values of the organization, and therefore exhibit higher levels of performance and productivity. Meanwhile, according to Mowday et al. (1979) organizational commitment entails three factors: (1) a strong belief in and acceptance of the organization's goals and values, (2) a willingness to exert considerable effort on behalf of the organization, and (3) a strong desire to maintain membership in the organization.

Balfour and Wechsler (1996) further elaborated on the concept of identification commitment in a model for the public sector based on a study of public employees. Identification commitment is based on the employee's degree of pride in working for the organization and on their sense that the organization does something important and does it competently (Balfour & Wechsler, 1996). According to Balfour and Wechsler (1996), in expressing identification with the organization, employees often refer to pride in organizational membership or in the accomplishments of the organization. The authors extend the meaning of identification commitment to include the individual's feelings about the organization's mission, purpose, and achievement. Employees'

identification commitment with the organization should lead to enhanced intrinsic motivation and therefore lead to better performance (Balfour & Wechsler, 1996). To further explore the impact of identification commitment on the perception of e-government performance, the following hypotheses are established and tested in this study:

*Hypotheses 4a-4c:* The level of employees' identification commitment with the organization is positively associated with the perception of e-government performance in terms of service quality (6a), transparency (6b), and cost-efficiency (6c).

## MANAGEMENT FOR RESULTS

Organizational performance has been a target of government reforms around the world (Pollitt & Bouckaert, 2000). Improved performance requires more attention to cost, elimination of duplication and redundancy, and improved transparency and accountability in government operations. Without organizational commitment to management for e-government results, it is difficult for local governments to figure out the strategy of continuous e-government investment and development. Ingraham, Joyce and Donahue (2003, p.22) define management for results as "the dominant mechanism by which leaders identify, collect, and use the performance information necessary to evaluate the institution's success with respect to key objectives, to make decisions, and to direct institutional actions." Jennings and Haist (2004) further emphasize that performance measures provide information that consumers (e.g., public officials, service recipients, and citizens) can use to make judgments about the effectiveness of an organization or program. Not surprisingly, scholars and practitioners continuously emphasize that the appropriate management structure and approaches, including strategic management of e-government and integration of e-government with performance management have been attributed to the success of e-government performance (Bovaird, 2002; Heeks, 2001; Pizzella, 2008).

While there are limited studies on specific measurement of output and outcomes of local e-government performance, the results of three surveys of local government in the United States indicate some positive impact of local e-government on increased citizen contact with officials, improved public communication, and customer service (Coursey & Norris, 2008; Norris & Moon, 2005). However, these studies do not pay attention to how organizational capacity of managing for e-government results related to e-government performance in public organizations. To explore the impact of management for e-government results on the perceptions of e-government performance, the following hypotheses are proposed and tested in this study:

*Hypotheses 5a-5c:* The degree to which e-government is managed for results is positively associated with the perceptions of e-government performance in terms of service quality (5a), transparency (5b,) and cost-efficiency (5c).

## RESEARCH METHODS

### Case Setting

In 1988 the National Assembly broke with the political tradition of centralized authority by passing the South Korean Self-Governance Act, encouraging local governance and grassroots democracy. Elections for local legislative council seats began in 1991; elections for city mayors and provincial governors began in 1995. Under the newly elected mayor's leadership, Gangnam-gu has implemented 71 e-government applications since 1995 as part of its innovative Smart Gangnam - Cyber City Project (Bretschneider, et al., 2005). The e-government services Gangnam-gu has developed cover a wide range of service categories, including civil applications, permit applications, real estate information, tax-related inquiries, tax-filing, real-estate/other ownership registration, user fee payment, search and payment of traffic fines, Kiosk civil applications, and several e-participation applications. In addition, approximately 1,700 practitioners from more than 50 countries have visited Gangnam-gu to learn e-government practices and innovations. Through e-government innovations, Gangnam-gu is leading a wave of local government reform efforts, making great strides that have significantly enhanced the public value of its democratic processes and government services (Bretschneider, et al., 2005).

### Data Collection

The employee survey was conducted during the last two weeks of July 2004. The data collection was part of a research project on *E-Government in Gangnam District: Evaluating Critical Success Factors*, which was conducted by the Center for Technology and Information Policy at the Maxwell School of Syracuse University. The purpose of the survey was to identify how various human, organizational, and technological resources, along with the leadership of an elected official, generate capabilities that influence the performance of e-government systems. Gangnam-gu district employs approximately 1,000 people. Four hundred and ninety two employees from 15 Divisions located in a main building of Gangnam-gu district government were sampled, of which 286 responded to the survey.<sup>1</sup> Thus, the response rate was 58.1 percent (286/492). A pretest of the employee survey was conducted with the Social Welfare Division before the survey instrument was distributed to the sample population. We received feedback from those who participated in this pretest and clarified some vague questions. After revision, the Policy and Planning Division of Gangnam-gu district government helped the research team to deliver the survey instrument to 492 employees. Survey instruments were directly distributed to two divisions by our research team, and the other instruments were delivered and collected by the Gangnam-gu Policy and Planning Division.

### Survey Measures and Items

*Independent variables:* In the interest of improving reliability and validity, multiple-item measures were used for all of the variables except management for results (Appendix 1). Responses were recorded along a 5-point Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Appendix 1 presents the questionnaire items. Executive leadership was measured in terms of (a) facilitating e-government development; (b) communicating a clear vision for e-government and (c) encouraging



innovative ideas. The Cronbach's alpha for these items was 0.90. Perceived IT capacity in a work unit was measured with three items developed for this study purpose, including IT resource, financial resource, and IT know-how. The Cronbach's alpha for the IT capacity items was 0.89. Reward system fairness was assessed by three items adapted from research by Balfour and Wechsler (1996). The Cronbach alpha reliability estimate for this section of the survey was 0.85. Employees' identification commitment was assessed with a three-item commitment scale described by Balfour and Wechsler (1996). The Cronbach alpha reliability estimate for the identification commitment items was 0.82. Management for results was measured with the following item: "My work unit regularly evaluates the results of e-government service."

*Dependent variables:* Service quality was assessed by three items developed for this study. Those items were: (1) "E-government service in my work unit has improved the quality of service to citizens;" (2) "E-government service in my work unit has increased my work unit co-workers' responsiveness to citizens;" and (3) "E-government service in my work unit has changed my co-workers' behavior from an authoritative style to a citizen-centered service approach." The reliability (Cronbach's alpha) of the three items was measured as 0.86. Transparency was measured by three items: (1) "E-government service in my work unit has increased openness and transparency in government;" (2) "E-government initiatives have decreased corruption by civil servants in general;" and (3) "E-government service in my work unit has reduced civil servants' abuse of authority and power." The coefficient alpha reliability estimate for this section of the survey was 0.86. Three items were adapted from the ICMA E-government Survey 2002 to measure e-government performance in terms of cost-efficiency: (1) "My work unit has reduced administrative costs due to e-government service;" (2) "The application of e-government has reduced time demands on staff;" and (3) "The transformation to e-government has streamlined internal processes." The coefficient alpha reliability estimate for this section of the survey was 0.73. Two personal characteristics were also used as control variables: years of working at the agency and the employee's position level.

## RESULTS

### Survey Respondents

Among the participants of the survey, 96 respondents (35.7%) were female. Position levels ranged as follows: lower level (grades 10-8), 58%; middle level (grades 7-6), 40%; and higher level (grades 5-4), 2.0%. The distribution for “Years of work at current job” was as follows: less than 1 year, 6.7%; 1-5 years, 70.2%; 6-10 years, 12.1%; 11-15 years, 10.2%; and 16 years or more, 0.8%. The majority of respondents reported having a bachelor’s degree (58%). Descriptive statistics, correlation coefficients and reliability for the study variables are presented in Table 1. Regarding e-government performance items, employees perceived higher levels of improved service quality (3.72) and transparency (3.67) than cost-efficiency (3.19). Interestingly, local government authorities in the United Kingdom also perceived that e-government has a much greater impact on the interaction between the public and government than on the costs and efficiencies associated with internal processes (Birch, 2003).

All of the zero-order correlations were statistically significant at  $p < 0.01$  (Table 1). All of the measures appeared to be relatively distinct; the largest correlation between independent variables and dependent variables (that between organizational commitment and service quality) was 0.69. The prevalence of significant relationships may suggest some weaknesses in the study measures. In order to determine whether ordinary least squares were the appropriate estimator, multicollinearity has been tested by collinearity statistics. Six independent variables’ Variation Inflation Factor (*VIF*) values indicate that there is not a severe multicollinearity among the variables.<sup>2</sup>

**Table 1: Descriptive Statistics, Reliabilities, and Correlations**

	Mean (s.d.)	1	2	3	4	5	6	7	8
1. Executive leadership	3.93 (.92)	1	(.90)						
2. IT capacity	3.21 (.98)	.39	1	(.89)					
3. Fair reward systems	3.17 (.86)	.42	.39	1	(.85)				
4. Identification commitment	3.37 (.64)	.56	.38	.54	1	(.82)			
5. Managing for results	3.31 (.97)	.38	.43	.39	.50	1			
6. <i>Service quality</i>	3.72 (.79)	.55	.46	.45	.69	.59	1	(.86)	
7. <i>Transparency</i>	3.67 (.79)	.54	.46	.42	.60	.54	.81	1	(.86)
8. <i>Cost-Efficiency</i>	3.19 (.72)	.40	.42	.50	.44	.47	.61	.51	1 (.73)

N=286. All correlations are significant at the 0.01 level. The coefficient alpha reliability estimates for all of the variables are reported in parentheses.

### EMPLOYEES PERCEPTIONS ON E-GOVERNMENT EFFECTIVENESS

Table 2 shows the descriptive analysis of the measures of e-government effectiveness in the survey. Only 29 percent of the respondents believed that their work unit reduced administrative costs due to e-government service. However, almost 24 percent of the respondents disagreed with this, and almost 48 percents were “neutral.”

61 percent of the respondents answered “strongly agree/agree” to a statement of the quality of service: “E-government service in my work unit has improved the quality of service to citizens.” The percentage of the respondents disagreeing with the statement was only 6.6. Nearly 66 percent of the respondents believed that e-government service has increased citizens’ trust in Gangnam-gu.

Furthermore, nearly 63 percent of the respondents believed there was an increase of co-workers’ responsiveness to citizens through e-government service. Approximately 61 percent also reported that e-government service in their work unit increased openness and transparency in government. While 54 percent of the survey respondents believed there was a negative impact of e-government service on civil servants’ abuse of authority and power, nearly 61 percent of the respondents perceived the positive impact

e-government initiatives had on the decrease of civil servants' corruption in general. Nearly 54 percent of the respondents believed that e-government service caused behavioral changes in their co-workers, triggering a shift from an authoritative style to a citizen-centered service approach. Only 5 percent of the respondents disagreed with the issue. Nearly 42 percent of the respondents agreed with the following statement: "My work unit regularly evaluates the results of e-government service." However, nearly 17 percent of the respondents disagreed with this, and almost 42 percent were "neutral."

**Table 2: Employees Perceptions on E-Government Effectiveness**

	Mean	Strongly Disagree (%)	Disagree	Neutral	Agree	Strongly Agree
1. My work unit has reduced administrative costs due to e-government service	3.07 (0.90)	11 (4.0)	54 (19.6)	131 (47.5)	64 (23.2)	16 (5.8)
2. E-government service in my work unit has improved the quality of service to citizens	3.76 (0.91)	4 (1.5)	14 (5.1)	89 (32.4)	105 (38.2)	63 (22.9)
3. E-government service in my work unit has increased citizens' trust in Gangnam-gu	3.76 (0.90)	5 (1.8)	17 (6.1)	73 (26.1)	129 (46.1)	56 (20.0)
4. E-government service in my work unit has increased my work unit co-workers' responsiveness to citizens	3.74 (0.90)	5 (1.8)	14 (5.1)	83 (30.2)	116 (42.2)	57 (20.7)
5. E-government service in my work unit has increased openness and transparency in government	3.71 (0.91)	5 (1.8)	16 (5.8)	87 (31.5)	112 (40.6)	56 (20.3)
6. E-government service in my work unit has reduced civil servants' abuse of authority and power	3.56 (0.92)	5 (1.8)	26 (9.5)	94 (34.4)	106 (38.8)	42 (15.4)
7. E-government initiatives have decreased civil servants' corruption in general	3.69 (0.90)	6 (2.2)	14 (5.1)	88 (32.2)	114 (41.8)	51 (18.7)
8. E-government service in my work unit has changed my co-workers' behavior from an authoritative style to a citizen-centered service approach	3.65 (0.88)	5 (1.8)	9 (3.3)	112 (41.0)	96 (35.2)	51 (18.7)
9. My work unit regularly evaluates the results of e-government service	3.31 (0.97)	11 (4.1)	35 (13.0)	112 (41.5)	81 (30.0)	31 (11.5)

N= 286

## IMPACT ON WORKFORCE

Table 3 shows the descriptive analysis of the impact of e-government development on workforce. Almost 60 percent of the respondents reported that e-government application has changed the role of staff. Nearly 40 percent of the respondents believed that e-government application has reduced time demands on staff. However, almost 27 percent of the respondents disagreed with this, and almost 38 percents were “neutral. On the other hand, 31 percent of the respondents perceived that e-government application produced increased demands on staff and their workload. Regarding the impact of e-government transformation on internal processes, nearly 51 percent of the respondents believed that e-government transformation streamlined internal processes in Gangnam-gu. Nearly 37 percent of the respondents believed that e-government transformation increased citizen contact with employees. However, almost 27 percent of the respondents disagreed with this, and almost 36 percents were “neutral.”

**Table 3: Impact on Workforce**

	Mean	Strongly Disagree (%)	Disagree	Neutral	Agree	Strongly Agree
1. E-government application has changed the role of staff.	3.62 (0.83)	4 (1.4)	18 (6.4)	93 (33.0)	133 (47.2)	34 (12.1)
2. E-government application has reduced time demands on staff.	3.12 (1.00)	16 (5.7)	59 (21.1)	95 (33.9)	93 (33.2)	17 (6.1)
3. E-government application has increased demands on staff and their workload.	3.13 (0.84)	7 (2.5)	50 (17.7)	137 (48.6)	75 (26.6)	13 (4.6)
4. E-government transformation has increased citizen contact with Gangnam-gu employees.	3.11 (0.95)	11 (3.9)	65 (23.1)	102 (36.3)	88 (31.3)	15 (5.3)
5. E-government transformation has streamlined its internal processes.	3.40 (0.82)	7 (2.5)	28 (10.0)	102 (36.6)	130 (46.6)	12 (4.3)

N= 286

## MULTIVARIATE ANALYSIS

Results from an ordinary least squares (OLS) multiple regression analysis appear in Table 4. The equation of each model achieves statistical significance at the .001 level. The data shows that the mayor's leadership of e-government innovation is positively associated with employees' perceptions of improved service quality ( $p < .01$ ), transparency ( $p < .001$ ), and cost-efficiency ( $p < .05$ ) through e-government development. Among the management capacity variables, IT capacity, fair reward systems, and organizational commitment of employees were positively associated with employees' perceptions of e-government performance. The regression analysis results show that employees who reported a high level of IT capacity were more likely to express a positive effect of e-government performance on service quality ( $p < .05$ ), transparency ( $p < .05$ ), and efficiency ( $p < .01$ ) at a statistically significant level. The data also shows that employees who believed reward systems to be fair were more likely to express a positive impact of e-government development on cost-efficiency ( $p < .01$ ). Statistical support was also found for parts of the identification commitment hypothesis. Specifically, the degree of identification commitment was positively associated with service quality ( $p < .001$ ) and transparency ( $p < .001$ ). However, the identification commitment of employees was not significantly associated with cost-efficiency. Management for results was positively associated with the perceptions of e-government performance. That is, employees who believed that e-service performance was regularly evaluated reported higher levels of service quality ( $p < .001$ ), transparency ( $p < .001$ ), and efficiency ( $p < .001$ ) than employees who did not.

According to the results, executive e-government leadership, IT capacity, HR capacity, and the level of management for results were significant variables affecting employees' perceptions of the local e-government performance aspects that were examined in this study. Specifically, executive leadership, IT capacity, and management for results were significantly associated with perceptions of e-government service quality, transparency, and cost-efficiency. There was no significant relationship found between the control variables and the perceptions of e-government performance in the study.

**Table 4: Results of Regression Analysis**

Variables	Service quality $\beta$ (s.e)	Transparency $\beta$ (s.e)	Cost-efficiency $\beta$ (s.e)
Executive Leadership	.18**	.25***	.15*
IT capacity	.11*	.13*	.18**
Fair reward systems	.04	.04	.17**
Identification commitment	.37***	.25***	.10
Managing for results	.31***	.24***	.24***
<i>Position</i>	-.00	.03	-.04
<i>Years of work</i>	.01	.01	.05
$R^2$	.654	.518	.397
<i>Adjusted <math>R^2</math></i>	.642	.501	.377
F	54.066***	31.018***	19.213***

N= 286; <sup>†</sup>  $p < .10$ ; \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$



## LESSONS SUMMARY

This study examined and analyzed the influence of executive e-government leadership, management capacity, and the level of management for e-government results on employees' perceptions of e-government performance in a local district in the Seoul Metropolitan Government, South Korea. The key findings for e-government performance gleaned from this study is that executive e-government leadership, IT capacity, HR capacity, and management for results are all important factors affecting employees' perceptions of local e-government performance. The results of this study indicate that the level to which an e-government program is managed for results is the most significant factor affecting employees' perceptions of e-government performance, including service quality, transparency, and cost-efficiency.

This study found that the mayor's e-government leadership, which demonstrated a clear vision of e-government innovation and encouraged employees' innovative ideas for e-government, is positively associated with perceptions of e-government performance in terms of service quality, transparency, and cost-efficiency. According to the results, it seems clear that e-government performance requires executive leaders who believe in innovation and experimentation in order to ensure long-term success. This study also found that IT capacity and the level of identification commitment of employees are positively associated with perceptions of e-government performance. Furthermore, a fair reward system is positively associated with improved cost-efficiency through e-government development.

The results of the study reveal several lessons for continuing innovative and effective reforms in local e-government. Visionary e-government leadership, joined with thoughtful planning and monitoring, can make e-government a useful vehicle for government services and information. As emphasized by several scholars of the transformational leadership model (Avolio, 1999; Bass & Avolio, 1990; Northouse, 2001), the study reveals that executive e-government leaders should pay attention to inspirational motivation and to the level of organizational commitment among their organization's employees, as these are significant factors in successful implementation of e-government innovations. Successful executive e-government leadership requires effective promotion and communication of the leader's e-government vision and goals to senior management and employees.

Another important lesson from this study is that local e-government leaders should make a commitment to management for results and performance in e-government. Once the management capacity of e-government applications has been established, e-government leaders should make a commitment to managing for results and performance. E-government leaders have to pay attention to ways they can connect management capacity to improved performance. In order to strengthen the performance of e-government innovations, several strategies can be applied to local e-government development. Organizational leaders can establish a management system that requires a formal performance evaluation process for e-government applications. Furthermore, e-government leaders should emphasize the importance of training programs for performance measurement, e-government service evaluation, and accountability.

This study also supports the hypothesis that the perceived performance of an e-government innovation depends on the government's ability to develop IT capacity,

including IT resources, financial resources, and know-how to implement e-government services. Local government can create public value by developing capabilities to assemble resources to support e-government development strategies. To enable organizational innovation through e-government, organizational leaders and IT project managers need to carefully assess system development needs for specific services, financial support for IT projects, and employee training. The use of technology to solve a specific problem or to perform a particular function in local government also requires adequate know-how regarding the development of e-government services, innovative business operation procedures, and management of customer-relations (Bretschneider, et al., 2005). Accordingly, organizational leaders and IT departments should pay attention to their e-government strategic plan, especially regarding IT capacity. This capacity plan should address IT planning, system development, resource allocation, stakeholder analysis, and return on investment. In particular, e-government development requires organizational leaders' commitment to ongoing training programs that develop employee skills and knowledge of IT systems and e-government services (Bretschneider, et al., 2005).

Furthermore, the study found that employees' identification commitment with the organization was positively associated with perceived e-government performance in the areas of service quality and transparency. Accordingly, organizational leaders should pay attention to the organizational factors affecting employees' organizational commitment. Local government may discover that increased communication with employees about job responsibilities and a sincere effort to increase participative decision-making can lead to enhanced levels of organizational commitment among employees. Wright and Kim (2003) note that employees need to understand not only how their work can contribute to the organization's performance (task significance), but also to what degree their current work performance and strategies are making that contribution (performance feedback).

Training programs for managers and supervisors emphasizing effective communication skills and mentoring relationships would not only facilitate more effective employee involvement but would also increase employees' organizational commitment. Participative management of e-government development can improve an employee's understanding of the organization's processes for e-government innovation and provide opportunities to develop important changes to operational procedures related to IT adoption and e-government services. Finally, active communication with employees not only helps to decrease tension related to role ambiguity but also provides important performance feedback that can enhance their level of organizational commitment, especially regarding e-government success.

Finally, the study results show that employees who believed reward systems to be fair were more likely to express a positive impact of e-government development on cost-efficiency. In order to implement fair reward systems, it is necessary that organizational leaders and HR leaders create organizational policy regarding the regular assessment of job descriptions to respond to organizational environment changes. Performance-based reward systems should be managed based on job-related criteria that are developed from updated job descriptions. Managers and supervisors should clearly understand the importance of regular employee performance feedback as well as good communication with employees about reward systems. Organizational leaders should provide regular training programs for supervisors and line managers about the reward system and effective communication. Furthermore, local e-government leaders should reward and

recognize the accomplishments of teams and individuals that help improve e-government performance management practices.

## CONCLUSIONS AND FUTURE RESEARCH

In conclusion, this study extends our understanding of how leadership, management capacity, and management for results affect employees' perceptions of e-government performance in local government. Important limitations to this research should be noted. First, the measures used here were perceptual rather than objective; a more complete analysis would require additional data on e-government performance and longitudinal studies of the patterns of e-government efficiency and effectiveness. Second, the generalization of this study is very limited as it was based on a local e-government case in South Korea. Third, in order to analyze e-government performance, more data should be collected targeting on service quality and citizen satisfaction.

While this paper was interested in service quality, transparency, and cost-efficiency, it is important to note other competing attributes of e-government performance and effectiveness, including digital divide issues, privacy issues and security issues (Hammit, 2002; Kim & Kim, 2003; Stowers, 2002). Hammit (2002) and Stowers (2002) note that the September 11, 2001 attacks accelerated public concern over public information security, especially internet access to confidential information. The prevailing idea is that while e-government should support online access to a broad range of information and applications, it has yet to strike a proper balance between the demand for convenience and the need to maintain the security and privacy of sensitive data. If competing and contradictory values are simultaneously considered as major objectives for e-government transformation, the final product is in danger of being very complex, defeating demands for efficiency and convenience. For purposes of establishing proper management procedures, it is necessary to identify those values considered most important by the largest number of citizens and public agency interests.

Scholars continuously demand more empirical studies to understand the impact of e-government on government change, effectiveness, and citizen participation and to evaluate e-government research methods (Coursey & Norris, 2008; Heeks & Bailur, 2007; Yildiz, 2007). For example, Coursey and Norris (2008) argue that e-government development models (e.g., Baum & Di Maio, 2000; Hiller & Bélanger, 2001; Layne & Lee, 2001; Ronaghan, 2001; Wescott, 2001) do not explain e-government development status and progress of local governments in the states. Coursey and Norris (2008) further express their concern regarding optimistic predictions and normative expectations of the e-government development models. It is still difficult to generalize the positive and negative impacts of e-government development in global communities due to limited data and in-depth case studies. However, the present argument and debate of the positive and negative impacts of e-government development explores a bigger and important question regarding how to conduct local e-government development research in the context of globalization and decentralization in different regions and countries. Are there different approaches and impact of e-government development in different regions and countries? If so, what are the independent variables to explain the variances of e-government development and impact in global communities? How do globalization and decentralization lead to e-government development in local

government and what are the impacts of e-government development on government performance and accountability?

In order to clarify the impact of e-government development on local government efficiency, effectiveness, quality of service, and citizen satisfaction, more research should be done at the local level in relevant countries. The demands of economic and social development and decentralization also influence citizens' expectations about local government responsiveness, performance, and accountability. Accordingly, local governments should respond to these challenges with a proactive strategy for building management capacity to institutionalize e-government applications that best meet citizens' needs and expectations. The findings of this case study in South Korea show that decentralization and an elected executive leader's commitment to government reforms are important factors affecting e-government development for enhancing government performance and transparency. In terms of the impact of e-government, majority of employees perceived positive impacts of e-government innovations on service quality, responsiveness, and transparency. However, many employees had reservations about the positive impact of e-government on cost-efficiency.

There are important gaps of knowledge in the discourse of public administration when it comes to e-government performance in local government, the role of local government capacity and leadership, and the dynamics of decision-making for enhancing government effectiveness, democratic governance, and transparency in various countries.

Based on valid empirical studies, scholars may introduce diverse models of e-government development and local government changes given the difference between developed and developing countries in government capacity, civil society strength, IT maturity, and democratic institutions. More in-depth case studies in various regions and countries may help develop e-government models, and rigorous testing of the models with valid data by scholars would facilitate theory building about e-government in public administration.

Future researchers may also want to focus on (a) the political context and its impact on e-government initiatives, especially on IT investment decision-making; (b) motivational factors (i.e., internal and external) and their impact on the organizational commitment of IT project managers as well as employees; (c) citizens' perceptions of e-government efficiency and effectiveness; (d) factors affecting citizens' satisfaction with e-government services, and (e) comparative studies of e-government leadership and management capacity among local governments.

*Soonhee Kim, Associate Professor of Public Administration, Maxwell School of Citizenship and Public Affairs, Syracuse University and a Senior Research Associate, Campbell Institute of Public Affairs: soonheekim@maxwell.syr.edu*

## ACKNOWLEDGEMENTS

Support for this research by the Division of Policy Planning at Gangnam-gu is gratefully acknowledged. The author also acknowledges the Gangnam-gu project team members, including Stuart Bretschneider, Jon Gant, Heungsuk Choi, Hyunjoon Kim, Jooho Lee, and Michael Ahn.

## APPENDIX A: SURVEY ITEMS\*

### E-government Leadership (0.90)

- The mayor's leadership has been a significant facilitator to e-government development.
- The mayor clearly identifies his e-government vision.
- The mayor does encourage employees' innovative ideas for the e-government services.

### Fair reward systems (0.85)

- This organization provides me with a fair opportunity for advancement and promotion.
- My work unit leader's assessments of my job performance are fair.
- Overall, the rewards I receive here are quite fair.

### Identification commitment (0.82)

- I am quite proud to be able to tell people whom it is I work for.
- What this organization stands for is important to me.
- I work for an organization that is competent and able to accomplish its mission.

### IT capacity (0.89)\*\*

- I believe my work unit has adequate IT resources to provide e-government service.
- I believe my work unit has adequate financial resources to provide e-government service.
- I believe my work unit has adequate know-how to provide e-government service.

### Management for results

- My work unit regularly evaluates the results of e-government service.

### E-Government Performance

#### Service quality (0.86)

- E-government service in my work unit has improved the quality of service to citizens.
- E-government service in my work unit has increased my work unit co-workers' responsiveness to citizens.
- E-government service in my work unit has changed my co-workers' behavior from an authoritative style to a citizen-centered service approach.

#### Transparency (0.86)

- E-government service in my work unit has increased openness and transparency in government.
- E-government initiatives have decreased corruption by civil servants in general.
- E-government service in my work unit has reduced civil servants' abuse of authority and power.

### Cost-Efficiency (0.73)

- My work unit has reduced administrative costs due to e-government service.
- E-government application has reduced time demands on staff.
- E-government transformation has streamlined business operation processes.

\*Cronbach's alpha in parentheses

\*\*Items were measured on a five-point frequency of occurrence (almost never, rarely, sometimes, often, and almost always). All other items used a five-point agree/disagree scale (strongly disagree, disagree, neither agree or disagree, agree, and strongly agree).

---

<sup>1</sup> The 15 divisions participating in the survey (numbers of participants in parentheses): Information Technology (18); Parking (84); General Affairs (17); Land Registry (16); Tax (12); Culture and Public Relations (9); Civil Affairs (10); Family Welfare (5); Park and Green Zone (6); Transportation Administration (7); Health Sanitation (11); Self-governing Administration (14); Financial Administration (15); Construction Management (18); and Environmental Cleaning (20).

<sup>2</sup> According to Neter et al. (1990, p. 409), the largest *VIF* value among all variables is often used as an indicator of the severity of multicollinearity. A maximum *VIF* value in excess of 10 is often taken as an indication that multicollinearity may be unduly influencing the least square estimates. All of the *VIF* values of the eight independent variables are less than 2.2, leading the author to conclude that multicollinearity was not a problem.

---

## REFERENCES

- Avolio, B. J. (1999). Full leadership development: Building the vital forces in organizations. Thousand Oaks, CA: Sage.
- Balfour, D. L. and Wechsler, B. (1996). Organizational commitment: Antecedents and outcomes in public organizations. *Public Productivity and Management Review*, 19(3), 256-277.
- Bass, B. M., & Avolio, B. J. (1990). The implications of transactional and transformational leadership for individual, team, and organizational development. *Research in Organizational Change and Development*, 4, 231-272.
- Baum, C. H., & Di Maio, A. (2000). Gartner's Four Phases of E-government Model. Stamford, CT: Gartner, Inc.
- Benjamin, P. (2001). Community Development and Democratization Through Information Technology: Building the new South Africa. In R. Heeks (Ed.), *Reinventing Government in the information age: International Practice in IT-enabled Public Sector Reform* (pp.194-210). London: Routledge.
- Birch, D. (2003). Local E-Government: A Survey of Local Authorities. London: Local and Regional Government Research Unit, Office of the Deputy Prime Minister.
- Blau, G. (1999). Testing the longitudinal impact of work variables and performance appraisal satisfaction on subsequent overall job satisfaction. *Human Relations*, 52(8), 1099-1113.
- Bovaird, T. (2002). Performance Measurement and Evaluation of e-Government and e-Governance Programs and Initiatives, OECD E-Government Project, Seminar-Vision, Responsiveness and Measurement, OECD, Paris, March 11-12, 2002.
- Bretschneider, S., Gant, J., Kim, S., Choi, H., Kim, H., Ahn, M., & Lee, J. (2005). E-Government in Gangnam District: Evaluating Critical Success Factors. Syracuse, NY: Center for Technology and Information Policy, Maxwell School, Syracuse University. Project report submitted to Gangnam-gu.



---

Broadbent, M., Weill, P. & Neo B. S. (1999). Strategic context and patterns of IT infrastructure capability. *The Journal of Strategic Information Systems*. 8 (2), 157-187.

Caffrey, L. (1996). *Electronic Government in the Information Society*, ICA – International Council for Information Technology in Government Administration, London: International Council for Information Technology in Government Administration.

Center for Technology in Government. (1999). *Some assembly required: Building a digital government for the 21<sup>st</sup> Century*. Report of a Multidisciplinary Workshop Held in October 1998. Albany: University at Albany

Council for Excellence in Government. (2000). *E-Government: The next American revolution*. Washington, D.C.: The Council for Excellence in Government

Coursey, David and Donald F. Norris. (2008). Models of e-government: Are they correct? *Public Administration Review*, 68(3), 523-536.

Daley, D. M. (1986). Humanistic management and organizational success: The effect of job and work environmental characteristics on organizational effectiveness, public responsiveness and job satisfaction. *Public Personnel Management*, 15(2), 131-142.

Donahue, A. K., Selden, S. C., and Ingraham, P. W. (2000). Measuring government management capacity: A comparative analysis of city human resources management systems, *Journal of Public Administration Research and Theory*, 10(2), 381-411

Fountain, J. E. (2001). *Building the virtual state: Information technology and institutional change*. Washington, D.C.: Brookings Institution Press.

Grant, R. (1991). The resource-based theory of competitive advantage: implications for strategy formation, *California Management Review*, 33(2), 114-135.

Hammit, H. (2002, June). An End to Easy Access, *Government Technology*, pp.50-54.

Heeks, R. (2001). *Reinventing Government in the Information Age: International Practice in IT-Enables Public Sector Reform*. London: Routledge.

---

Heeks, R., & Bailur, S. (2007). Analyzing e-government research: Perspectives, philosophies, theories, methods, and practice, *Government Information Quarterly*, 24(2), 243-265.

Hiller, J. S., & Bélanger, F. (2001). Privacy strategies for electronic government. Washington, DC : IBM Center for the Business of Government .

Ho, A. T. (2002). Reinventing local governments and the e-government initiative. *Public Administration Review*, 62(4), 434-441.

Hou, Y., Moynihan, D. P., & Ingraham, P. (2004). Capacity, management and performance: Exploring the links. *American Review of Public Administration*, 33(3), 295-315.

Ingraham, P., Joyce, P., and Donahue, A. (2003). *Government performance: Why management matters*. Baltimore: The Johns Hopkins University Press.

Intelligent Community Forum. (2006). The top seven intelligent communities of 2006.

Retrieved August 10, 2008, from [http://www.telecomweb.com/Assets/readingroom/Top\\_Seven\\_Intelligent\\_Communities\\_-\\_2006.pdf](http://www.telecomweb.com/Assets/readingroom/Top_Seven_Intelligent_Communities_-_2006.pdf).

Jennings, E.T., & Haist, M.P. (2004). Putting performance measurement in context In P.W. Ingraham and L.E. Lynn (Ed.) *The art of governance: Analyzing management and administration*, Washington, D.C.: Georgetown University Press.

Kim, H.J. & Bretschneider, S. (2004). Local government information technology capacity: An exploratory theory." *Proceedings of the 37<sup>th</sup> Hawaii International Conference on System Sciences*.

Kim, S., & Kim, D. (2003). South Korean public officials' perceptions of values, failure, and consequences of failure in e-government leadership. *Public Performance and Management Review*, 26(4), 360-375.

Koch, J.L., & Steers, R.M. (1978), Job attachment, satisfaction and turnover among public employees", *Journal of Vocational Behavior*, 12, 119-28.

Larson, E. W., & Fukami, C.V. (1984). Relationships between worker behavior and commitment to the organization and union. *Proceedings Of The Academy Of Management Journal*,. 222-226.

---

Layne, K., & Lee, J. (2001). Developing fully functional e-government: A four stage model. *Government Information Quarterly*. 18(2),122–36.

Modesitt C. (2002). Bridging the gap between citizens and local government with information technology: Concepts and case studies. Denver, CO: National Civic League.

Mohr, L. B. (1969). Determinants of innovation in organizations. *American Political Science Review*, 63(1), 111-126

Morris, D. F. & Moon, M. J. (2005). Advancing e-government at the grassroots: Tortoise or hare? *Public Administration Review* 65 (1), 64-75.

Mowday, R.T., Porter, L.W. & Dubin, R. (1974). Unit performance, situational factors and employee attitudes in spatially separated work units. *Organizational Behavior and Human Performance*, 12, 231-248.

Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14, 224- 227.

Mowday, R. T., Steers, R. M., & Porter, L. W. (1982). Employee organizational linkages: The psychology of commitment, absenteeism, and turnover. New York: Academic Press.

National Electronic Commerce Coordinating Council. (2000a). E-government strategic planning: a white paper. NECCC Annual conference, Las Vegas, NV. December 13-15, 2000.

National Electronic Commerce Coordinating Council. (2000b). Critical Business Issues in the Transformation to Electronic Government, NECCC Annual conference, Las Vegas, NV. December 13-15, 2000.

Neely, A. (1998). Measuring business performance. London: Economist Books.

Northouse, P. G. (2001). Leadership: Theory and practice (2<sup>nd</sup> ed.), Thousand Oaks, CA: Sage.

Norris, D. F. & Moon, M. J. (2005). Advancing e-government at the grassroots: Tortoise or hare? *Public Administration Review* 65 (1), 64-75.

---

Organization for Economic Co-operation and Development (2003). Checklist for E-Government Leaders. The Public Affairs Division, Public Affairs and Communications Directorate. Retrieved August 13, 2008, from [http://www.oecd.org/publications/Pol\\_brief](http://www.oecd.org/publications/Pol_brief)

Organ, D. (1988). A restatement of the satisfaction-performance hypothesis. *Journal of Management*, 14(4), 547-557.

O'Looney, John A. 2002. *Wiring governments: Changes and possibilities for public managers*. Westport: Quorum Books.

O'Toole, L. J., & Meier, K. J. (1999). Modeling the impact of public management: Implications of structural context. *Journal of Public Administration Research and Theory*. 9(4), 505-526.

Perlman, E. (2002, May). Policy, Politics and Leadership. *Governing*, Retrieved August 10, 2008, from <http://www.governing.com>

Pizzella, P. (2008, December 23). Department of Labor CIO Patrick Pizzella talks federal e-government," *Public CIO Magazine*, Retrieved August 10, 2008, from <http://www.govtech.com/pcio/575169>

Pollitt, C., and Bouckaert, G., (2000). *Public management reform: A comparative analysis*. New York: Oxford University Press.

Ronaghan, S. A. (2001). *Benchmarking e-government: A global perspective*. New York: United Nations Division for Public Economics and Public Administration and American Society for Public Administration.

Seoul Institute for Transparency (2008 ). *The Outline of Anti-Corruption Programs*. Retrieved August 11, 2008, from <http://opensystem.sit.re.kr/ENGLISH/sub1.html>

Stowers, G.N. L. (2002). *The state of federal websites*. Washington D.C.:The PricewaterhouseCoopers Endowment for the Business of Government.

Tichy, N. M., & DeVanna, M. A. (1990). *The Transformational leader* (2<sup>nd</sup> ed.). New York: John Wiley.

---

United Nations & American Society for Public Administration. (2001). Global survey of e-government. Retrieved June 10, 2006, from <http://www.unpan.org/egovernment2.asp>

U.S. General Accounting Office (GAO). (1999). Federal information system controls audit manual. Accounting and Information Management Division, GAO/AIMD-12.19.6. Retrieved July 10, 2008, from <http://www.gao.gov>

Van Maanen, J. (1975), Police socialization: A longitudinal examination of job attitudes in an urban police department, *Administrative Science Quarterly*, 20(2), 207-28.

Walker, R. M. & Boyne, G. A. (2006). Public management reform and organizational performance: An empirical assessment of the U.K. Labor government's public service improvement strategy, *Journal of Policy Analysis and Management*, 25(2), 371-393.

Wescott, C. G. (2007). E-government: Applications of technology to government services, In D.A. Rondinelli & J. M. Heffron (Ed.) *Globalization and change in Asia*, Boulder and London: Lynne Rienner Publishers.

Wescott, C. G. (2001). E-government in the Asia-Pacific region. *Asian Journal of Political Science*. 9(2), 1– 24.

West, D. M. (2004). E-government and the transformation of service delivery and citizen attitudes. *Public Administration Review* 64 (1), 15-27.

Wright, B. E. & Kim, S. (2004). Participation's influence on job satisfaction: The importance of job characteristics. *Review of Public Personnel Administration*, 24(1), 18-40.

Yildiz, M. (2007). E-government research: Reviewing the literature, limitations, and ways forward, *Government Information Quarterly*, 24(3), 646-665. <http://www.sciencedirect.com/> - vt1

---

## ABOUT IPMR

IPMR	<p>The International Public Management Review (IPMR) is the electronic journal of the International Public Management Network (IPMN). All work published in IPMR is double blind reviewed according to standard academic journal procedures.</p> <p>The purpose of the International Public Management Review is to publish manuscripts reporting original, creative research in the field of public management. Theoretical, empirical and applied work including case studies of individual nations and governments, and comparative studies are given equal weight for publication consideration.</p>
IPMN	<p>The mission of the International Public Management Network is to provide a forum for sharing ideas, concepts and results of research and practice in the field of public management, and to stimulate critical thinking about alternative approaches to problem solving and decision making in the public sector.</p> <p>IPMN includes over 600 members representing sixty different countries and has a goal of expanding membership to include representatives from as many nations as possible. IPMN is a voluntary non-profit network and membership is free.</p>
Websites	<p>IPMR: <a href="http://www.ipmr.net/">http://www.ipmr.net/</a> (download of articles is free of charge)</p> <p>IPMN: <a href="http://www.inpuma.net/">http://www.inpuma.net/</a></p>