

# **The Transformation of E-governance in Local Government: Comparison of Critical Success Factors in Gangnam-Gu, Seoul South Korea and Washington D.C., USA**

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## **Abstract**

*As government organizations make subsequent investments to reposition their services around an E-government agenda, executives and managers of public organizations are experiencing great challenges in managing E-government systems successfully. This study examines how various human, organizational, and technological factors influence the performance of E-government systems in the Gangnam-Gu district in South Korea. The preliminary findings of the case study of the Gangnam-Gu district indicate that while technological factors have important consequences for e-government development, executive leader's commitment to e-government, performance-based incentive systems, and social networks mediate the performance of E-government.*

Public managers worldwide aspiring to improve the quality of government services are increasingly deploying E-government strategies that apply the capabilities of information and communication technologies to redesign government services. In Seoul, South Korea, for example, the Gangnam-Gu district has implemented 71 E-government applications since 1995 as part of its innovative Smart Gangnam - Cyber City Project. Washington D.C.'s nationally award winning E-government services have greatly transformed and improved citizen services, particularly through such highly innovative services as DC Atlas which integrates geospatial technologies with various web portal applications. Through these E-government strategies, both governments expect to satisfy citizen demand for effective service provision and democratic policy processes that allows them to reduce transaction costs and facilitate greater citizen participation. The online applications seamlessly provide citizens with such services as parking, traffic management, policy support systems and local computer training classes. These many E-government systems are accessed through a web portal developed using enterprise-wide information and communication technology architecture to create one of the first local government-wide integrated information systems.

However, as government organizations make subsequent investments to reposition their services around an E-government agenda, executives and managers of public organizations are experiencing great challenges in managing E-government systems successfully. E-government systems consist of complex process innovations and reengineering strategies that rely heavily on the systematic integration of old and new information and communication technology components with critical functions of the service delivery system. E-government systems also involve some level of coordination and communication with almost every functional unit of the organization where working relationships among employees are constrained by new and old business processes, and layers of complex institutional and organizational policies, practices, and norms (Kling, 2000). Consequently the likelihood of a government organization finding success in its E-government strategy depends on how well its managers can leverage its technology, organizational, and human resources.

To understand these issues in detail, our research team is embarking on a ground-breaking research study to examine how various human, organizational, and technological factors influence the performance of E-government systems. Our research study addresses the following research questions:

- How do management reform strategies enable high-performing E-government systems?

- Why are human, organizational, and information technology (IT) capabilities vital to government success in implementing E-government systems in contemporary digital environments?
- What current and emergent human resource, leadership and technological strategies will be important in government organizations that reposition their services around an E-government agenda?
- What transformation strategies should senior IT and public managers consider in designing and implementing their agencies E-government plans?
- What types of human resource management systems and leadership approaches enable successful performance of E-government systems?

We are conducting an in-depth analysis using a nested cross case study approach to compare six E-government services in Gangnam-Gu, Seoul S. Korea and Washington D.C. Case study analysis will allow us to capture the structural, organizational, and political complexities that accompany these collaboration projects. According to Yin (1994), "case studies are the preferred strategy when how and why questions are being posed" (p.13). The comparison arising from multiple case studies allows rich analysis and theory generation. We divided the applications based on their functionality – transaction processing, decision support system, geographic information system, enterprise wide system, and E-democracy system. Working in full cooperation with Gangnam-Gu and Washington D.C. governments, we are conducting interviews, examining key documents, and collecting and analyzing operation data regarding the six E-government services before and after their implementation. For each E-government service, we interview project leaders, sponsors, initiators, and executive champions as well as staff responsible for different aspects of the project such as technology infrastructure, marketing strategy, legal affairs and human resources. The interview protocol contains questions related to the project initiation (history, scope, management), to the technology solution used, to the collaboration process (participants, negotiation, objectives, conflicts etc.), and to the performance of the project. Our team has completed data collection for Gangnam-Gu in December, 2003 and is beginning data collection of the Washington D.C. services.

In the next phase of our study, along with internal metrics the research team will work with the government sponsor to administer two surveys. First, we will implement a survey to identify the organizational structure of each E-government service. We will use social network analysis methods to represent this structure through the communication networks among employees. This structure indicates how information flows and coordination occurs in the organization. Second, we will implement a client satisfaction survey for each application based on a random sample of users. For those services that still maintain an alternative non-electronic format, the research team will also survey clients using these non-electronic systems. For the sample of clients using non-electronic alternatives along with questions of service satisfaction the survey will also ask questions about access and familiarity with web technology and attitudes about privacy, and security in order to investigate why individual select electronic or non-electronic services. Both surveys will include questions about basic demographic characteristics.

Consequently our work yields deeply insightful information about the overall organizational, governance, human resource, and technological structure of both governments and the performance and operation of the same six E-government services. Some of our early findings indicate that while technological factors have important consequences for e-government development, executive leader's commitment to e-government, performance-based incentive systems, and social networks mediate the performance of e-government.

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