Managing IT Outsourcing for Digital Government

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INTRODUCTION

IT outsourcing has become an increasingly important strategy in meeting the demand for digital government services in many developed countries. In the United States, government IT outsourcing is expected to become the fastest-growing segment of the overall federal IT market.[1] In 2002, the federal government spent US$55 billion on IT service contracts (Harris, 2003). The European Union also witnessed mega government IT outsourcing deals. One of the most visible deals is the British government's National Health Service modernization plan, which features a host of multi-year IT outsourcing contracts whose total exceeds £5 billion (Collins, 2004). Government interest in IT outsourcing will likely be sustained by growing interest in creating value for citizens (Accenture, 2002).

The confluence of many factors has made IT outsourcing an appealing option for governments around the world. Governments around the world are facing the challenge of delivering more services with fewer resources to meet the demands of their citizens and businesses. Information technology is able to increase efficiency in service production and delivery. However, alone, governments find it difficult to provide the financial resources and competitive wages which attract needed IT talent to deploy e-government services (National Academy of Public Administration, 2001). Against this background, outsourcing becomes a value proposition for government. With outsourcing, government can gain access to IT expertise while gaining efficiency derived from private-sector economies of scale. Nevertheless, good management is needed to realize IT outsourcing's potential for creating value.

This article focuses on IT outsourcing in the public sector, analyzing management issues, and offering practical solutions. The background section defines IT outsourcing as well as its associated benefits and risks. The next section offers a process-oriented practical methodology as a tool for public managers to navigate the entire life cycle of IT outsourcing projects. More importantly, this process provides a structured way to maximize benefits and minimize costs associated with IT outsourcing. Then, a discussion of future trends examines IT outsourcing issues on the horizon. This article concludes with a general set of recommendations.

BACKGROUND

IT outsourcing by government is the utilization of external organizations for the production and/or provision of information technology services. This external organization is usually a company that provides IT services. The types of services include networks, applications, data centers, Web-hosting, and so forth. Britain's outsourcing of desktop operating systems and applications for the National Health Service, using Sun Microsystems, is an example (Sun Microsystems, 2004). Another example is the U.S. Navy-Marine Corp's multi-billion intranet outsourcing contract with Electronic Data Systems (EDS) (Wait, 2002).

Maximizing the benefits of IT outsourcing begins with a background analysis of its associated benefits and risks. The ultimate value of IT outsourcing lies in using information technology to transform business processes to meet the objectives of the organization (Accenture, 2003). It goes beyond merely having access to networks or more computing power. The real value comes from using information technology to reengineer business processes. This transformation entails better, faster, and more affordable services.

More specifically, the benefits associated with IT outsourcing include access to IT expertise, cost-savings, quick deployment, improvement in cash flow management, and flexibility in employment (Antonucci et al., 1998; Chen & Perry, 2003b). When a new major IT project is developed, governments often find themselves lacking the necessary IT expertise. This is due mostly to the fast-changing nature of information technology and government's competitive disadvantages in hiring and training skilled IT personnel. Cost savings are possible via leveraging economies of scale at the vendor side. For example, rather than building network capacity one government agency at a time, governments can outsource network services to network companies that can provide

identical services at much lower unit costs. Quick deployment is a natural consequence of the increased technical and financial capacities obtained through a service provider.

The benefit of cash flow management can be realized by arranging with private companies to pay only for ongoing services (Gant, Gant, & Johnson, 2002). The service provider provides the initial capital investments and recovers costs through service fees over time. Flexibility in employment is another benefit of IT outsourcing. Service providers are more flexible than governments when responding to changes in demands for specific IT skill sets.

However, IT outsourcing can also expose government to a number of risks. One is the loss of control over service level and service quality. Control is particularly difficult to exert when there is a large gap between what the government knows about service level and quality and what the service provider knows. With incomplete access to critical information, government may find it difficult to validate the claims of its IT service providers. Security is another risk factor, particularly when critical data is stored in facilities outside government perimeters. Government network-connected information systems supported by service providers may subsequently be subject to security threats. Moreover, training and background screening of IT personnel are important in addressing security threats.

Complex procurement processes and employment issues pose two types of risks for IT outsourcing by a government (as opposed to outsourcing by a private company). Cumbersome procurement rules and procedures in the public sector tend to prolong the negotiation and implementation of IT outsourcing contracts. Employment issues are particularly salient in government. How personnel are treated in an IT outsourcing deal may significantly impact the overall success of the project. The importance of this issue has been reflected in several recent IT outsourcing projects. For example, in one outsourcing project, the state of Pennsylvania guaranteed no lay-offs to ensure the support of the existing IT staff for the project (Tungate & Michael, 2002).

MANAGING IT OUTSOURCING: A PROCESS-BASED APPROACH

Public managers play a central role in realizing the full potential of IT outsourcing while minimizing its risks. The proposed process model is generic for governments of diverse needs and types. The discussions below focus on individual phases in the process also address the public sector. The model presents a "process" that governments must undertake as they plan and execute IT outsourcing projects. Following this process and attending to issues as they emerge at each phase, significantly increases the chance of capturing the benefits of IT outsourcing while minimizing entailed risks.

This process-oriented approach requires that digital government managers adopt a different mindset. An IT outsourcing arrangement should be treated as an ongoing relationship that requires constant adjustments. This approach is best suited for complex public sector environments with changing political leadership and competing objectives. Moreover, an IT outsourcing arrangement, by its nature, progresses through a lifecycle (a process). The proposed process model consists of six phases and has been adopted and modified from Chen and Perry (2003a).

Determination of a Sourcing Strategy

In the first phase, public managers need to define the sourcing strategy. This involves defining the government's strategic business goals and ensuring that IT aligns with them (McIvor, 2000). At this phase, the focus is on the government's strategic IT goals (i.e., affordable citizen-centric quality online services). The determination of sourcing scope and strategy requires an adequate level of internal IT management capacity. An experienced IT management team is more capable of assessing the associated benefits and risks. The proper level of IT management capability is critical for making informed selection of service providers, managing relationships, and making performance adjustments.

The sourcing strategy for government has three general objectives: continuous service improvement, business continuity, and compliance with relevant laws and regulations. In formulating a sourcing strategy, the organization must consider how to continuously improve service. Business continuity is another issue in determining the sourcing strategy. The strategy must provide sufficient safeguards against IT service disruptions caused by major disasters. The safeguards should be placed in a risk-management framework to help prioritize service items for business continuity. Compliance with relevant laws and regulations is another objective of the sourcing strategy. Thus, privacy, security, and employment regulations are likely to comprise the main issues.

Analysis of Sourcing Needs and Operational Relationship

Translating the strategic objectives into specific sourcing needs and operational relationships is the main task of the second phase. Prior to considering a specific vendor, government first must specify the information system's functional requirements that enable the delivery