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An institutional analysis of an e-government system for anti-corruption: The case of OPEN

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ABSTRACT

E-government is increasingly being used to improve transparency in the government sector and to combat corruption. Using institutional theory as an analytical perspective, this study documents and evaluates the development of an anti-corruption system called OPEN (Online Procedures ENhancement for civil application) in the Seoul Metropolitan Government. Incorporating three distinctive (yet interrelated) dimensions of institutionalization (regulatory/coercive, cognitive/mimetic, and normative), and four anti-corruption strategies embedded in the system, this study investigates how an e-government system for anti-corruption in a local government has evolved and become a prototype of a national system to be used for the same purpose. The findings show that in implementing OPEN, a system for anti-corruption, the regulatory dimension was most effective, and (as in many IS implementations) strong leadership was crucial to its success.

1. Introduction

E-government is being implemented in more areas of government administration at both the local and national levels worldwide. While it was initially promoted as a means of improving internal management efficiency in public administration, e-government is increasingly considered an important measure for enhancing citizen access to government services and expediting the delivery of services to citizens. E-government's potential to increase transparency and combat corruption in government administration is gaining popularity in communities of e-government practitioners and researchers (Wescott, 2003; APDIP, 2006). Such transparency can be achieved by providing citizens with more and direct access to information regarding the businesses of the citizens concerned. It is often said that increased transparency leads to decreased corruption.

This paper examines the OPEN (Online Procedures ENhancement for civil applications) system of the Seoul Metropolitan Government (SMG), an e-government system developed to reduce corruption. The OPEN system has been recognized (not only by Korean citizens and government, but also by international organizations such as the UN, OECD, and the World Bank) as enhancing administrative transparency and reducing corruption (APDIP, 2006). The success of the OPEN system led to the Korean central government's adoption of the OPEN principles in its nation-wide e-government system, called "Saeol."

This paper investigates how the OPEN system was developed and what made the system a success to the extent that the central government adopted a similar method. The key research questions are:

1) What mechanisms are involved in the evolution of an e-government system for anti-corruption?
2) What factors are effective in implementing an anti-corruption system?
3) Is such an anti-corruption system, in fact, reducing corruption?
4) What are the requirements for designing such an anti-corruption system? In other words, what strategies does the OPEN system employ?

To answer these questions, we take the perspective of institutional theory, which helps to elucidate how a system or innovation is maintained and reproduced (that is, institutionalized). While there have been several studies about e-government success factors (Kawalek & Wastell, 2005; Kim et al., 2007; Shi, 2002), there has been little research about the processes by which an e-government system is developed, enforced, and modified from a theoretical perspective. This paper contributes to the theory and practice of e-government by highlighting how an e-government is institutionalized, particularly in the area of anti-corruption, where reforms for transparency can be more strongly resisted and challenged by parties with vested interests than in other areas of e-government.

This paper is organized as follows. Section 2 reviews studies of e-government, focusing on transparency and anti-corruption, and introduces the institutional perspective. Section 3 outlines the methodology used, while Section 4 describes the OPEN system.

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Section 5 discusses key issues to the development of OPEN, and Section 6 presents this study's conclusions.

2. Literature review

2.1. E-government, transparency, and anti-corruption

The focus of e-government is shifting gradually from internal efficiency to value-added services for customers and other stakeholders (Melitski, 2003; Pollitt & Bouckaert, 2000; Stratford & Stratford, 2000). E-government means the use of technology to enhance access to and delivery of government services in order to benefit citizens, business partners, and employees (Silcock, 2001). E-government has the power to create new modes of public service whereby all public organizations deliver modernized, integrated, and seamless services for citizens.

In this shift towards external services, transparency has been increasingly emphasized as a fundamental driver for e-government. E-government initiatives are regarded as a powerful schema for enhancing public transparency (along with internal efficiency and quality service delivery) to the public (Fountain, 2001; Brown, 1999). Northrup and Thorson (2003) cite increased efficiency, increased transparency, and transformation as important reasons for e-government initiatives. In addition, Mulgan (2000) points out e-government transparency efforts in relation to accountability, which has extended its meaning to include transparency initiatives within the work procedures adopted by the government. Compared with earlier forms of e-government infrastructures (Chadwick & May, 2001), most current e-government websites and systems encompass more interactive features and services in order to restore public trust by providing necessary information and regulations, in addition to quick responses to individual queries (Moon, 2003).

By incorporating the agent-principal theory, Smith and Bertozzi (1998) explain the relationship between governments (as agents who work for citizens) and citizens (as principals). Because the government has more control than citizens over the flow of information, members of the government are prone to corruption. In order to narrow the distance between citizens and government, it is necessary to monitor the government's work and provide citizens with information about administrative processes and outcomes regarding, for example, permits or applications. Vishwanath and Kaufmann (1999) share this view and argue that more openness and information sharing enable the public to make informed political decisions, which can improve the accountability of governments.

More information delivered to citizens in a more timely fashion is expected to increase the transparency of government and empower citizens to monitor government performance more closely. Florini (2000) points out that transparency enables citizens to understand a government's accomplishments because the government provides them the necessary information. E-government is, therefore, viewed as a positive channel for enhancing trust in government through government accountability and the empowerment of its citizens (Kauvar, 1998; Demchak et al., 2000).

The reality, however, is not so simple. By examining five cases of IT and public section corruption, Heeks (1998) reports that while IT often helps detect and remove corruption, it sometimes has no effect, or creates new opportunities for corruption. IT can lead to an 'upskilling' of corruption and reduced competition for upskilled, corrupt civil servants (Wescott, 2001). Since corruption is deeply "rooted in cultural, political, and economic circumstances" (Wescott, 2001), Heeks (1998) suggests 'a more holistic vision,' that includes an information system design and other organizational and environmental factors when implementing a system for corruption control.

These concerns about corruption and e-government are translated into practical strategies by some international organizations. UNDP (2004) defines corruption as "the misuse of public power, office, or authority for private benefit." UNDP suggests four strategies to fight corruption: prevention, enforcement, access to information and empowerment, and capacity building (APDIP, 2006). Prevention refers to "reform[ing] administrative procedures, accounting, and procurement practices," enforcement of "institut[ing] proper record-keeping and put[ting] in place effective systems of surveillance and enforcement," access to information and empowerment in order to "promote access to information and enable public and media oversight," and capacity building in order to "strengthen governance systems and processes and provide training." When e-government applications are used to fight corruption, these four strategies need to be integrated in the design and implementation process.

2.2. Institutional theory

While there have been many studies that identified success factors of e-government projects from various viewpoints including IS factors, organizational factors, and project management factors (e.g. Kawalek & Wastell, 2005; Kim et al., 2007; Shi, 2002), few studies have been conducted on the processes of how an e-government system is developed, enforced, and evolved. To address this relatively unexplored aspect of e-government, we use institutional theory because we view e-government as institutions that are "multifaceted, durable social structures, made up of symbolic elements, social activities, and material resources" (Scott, 2001). Institutionalization is the process by which those structures are maintained and reproduced. Structures and activities are modified towards isomorphism not only for economic motivations, but often for social, cultural, or political ends.

At the center of institutional theory are three mechanisms (or forces) that engender the isomorphism or consistencies within or across organizations over time. These are: regulatory/coercive, cognitive/mimetic, and normative (DiMaggio & Powell, 1983; Scott, 2001). The three "institutional pillars" are viewed as independent and alternative sources of organizational structuring.

A regulatory or coercive mechanism is based on political and legislative influences. The regulatory factors are affected by politics and legislations and influenced by firms' decisions to adopt a specific organizational practice. Hoffman and Ventresca (2002) describe how organizations emphasize legitimation processes and have the tendency to institutionalize organizational structures and procedures following legislations.

A mimetic mechanism refers to copying other systems' practices (DiMaggio & Powell, 1983; Scott, 2001). It works when uncertainty is prevalent, at which point organizations are likely to model themselves on other organizations or refer to culturally presumed meanings and ideologies.

A normative mechanism is motivated by norms that are prevalent and observed in the domain to which the organizations belong. Institutions are made up of many elements with processes through which structures are maintained and modified towards consistencies within or across organizations over time (Scott, 2001). The consistency often means upholding norms. For example, organizations often take actions, not because of economic considerations, but because they are expected to follow industry norms.

Institutional theory has multiple roots and variants and has been applied in many areas of study (Scott, 1987; DiMaggio & Powell, 1991). In the study of technology, it aims to explore the creation, design, and use of advanced technologies that are bound up with the forms and direction of social order. The theory requires the study of technology, including e-government systems, to focus on interaction between people and the system, and to capture historical processes as social practices evolve. These social practices and processes are executed by the interactions among actors or stakeholders such as unions, investors, shareholders, financial institutions, customers, intermediaries, suppliers, academic institutions, business associations, and social activists (Hoffman, 2001; Silva & Figueroa, 2002).