

E-Government for Building the Knowledge Infrastructure in South Korea

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INTRODUCTION

New information and communication technologies (ICTs) enable rapid information flows, which reduce the necessity for face-to-face contacts as well as geographical barriers. These also create network-based societies (Castells, 1996). E-governments can contribute to the enhancement of network-based societies. In the last five years, governments have made rapid progress worldwide in embracing ICTs for e-government. By 2004, 178 of 191 member states of the United Nations had a Web site presence (UNPAN, 2004).

All e-governments focus on the use of ICTs for the full range of government functions. In particular, the networking potential offered by the Internet and related technologies enables them to transform the structures and operation of government. As a result, e-government can be a major enabler in the adoption of good governance practices (OECD, 2001a; Ronaghan, 2002).

Regarding the OECD's work on governance, there is a strong belief that effective governance is an important requirement for the achievement of economic, social, and environmental objectives. Moreover, the OECD secretary general set out a draft statement of governance priorities for the 21st century, which, in 2000, indicated the experiences of OECD countries in building democratic and prosperous societies.

In order to practice good governance, an e-government is regarded as a strategic implementation that identifies various objectives such as effective leadership, coordination and policy coherence, and efficient investment and financing (OECD, 2001a). Additionally, e-government is recognized as one of the most significant factors to strengthen national competitiveness, particularly in a knowledge-based information society. This also serves as an important enabler in order for a government to offer high-quality civil services at low costs. As a result, e-government not only contributes to the informatization of citizens and businesses but also improves the productivity and transparency of public administration (Bertelsmann Stiftung, 2002).

Advanced nations already have launched various government-driven initiatives such as the E-Government Initiative in New Zealand and the U.S., and UK Online in the UK (Reeder & Pandey, 2002). Along with these advanced nations, South Korea also is consistently pursuing e-government initiatives with its world-class information infrastructure in order to transform the way of national governance (National

Computerization Agency, 2002). The e-government project will bring about structural and procedural reform and is expected to serve as a springboard in order for South Korea to leap forward to become one of the leading nations in information and communication industries.

This article discusses which strategies the South Korean government focuses on and how it implements these in order to build the knowledge infrastructure. Furthermore, the article aims to analyze the methods of building the knowledge infrastructure based on ICT as well as the roles of the e-government to develop good governance.

BACKGROUND

The development paths of building e-government in South Korea consist of three stages. The first stage of e-government began in 1986, when the government passed the Act on Promotion of Information and Communication Network Utilization and Information Protection. On the basis of this legal support, the project of National Basic Information System (NBIS) was first implemented. Later on, the project of Korea Information Infrastructure was initiated with a trend to build information superhighways in advanced nations, which started in the U.S. in the mid-1990s.

In the second stage, the government enacted the Framework Act for Informatization Promotion and the National Framework Plan for Informatization Promotion. This act and the plan were empowered in 1995. On the basis of this legal enforcement, the government began providing informatization services such as patent, customs, and procurement. As a result, the services evolved to a full-scale e-government by the end of the 1990s. Furthermore, the government appointed chief information officers (CIOs) in 1998 and continuously revised the National Framework Plan for Informatization Promotion to Cyber Korea 21 in 1999 (National Computerization Agency, 2002).

The final stage was an ongoing process that started in 2001. The government established the Special Committee for e-government in January 2001 in order to accelerate its efforts to implement e-government with maximum power. The members of the special committee were experts from the private sector and deputy ministers of related agencies. The special committee was under the presidency and has continuously supported and monitored key initiatives (Knowledge-Based

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Table 1. Development paths for building e-government (Author's adaptation based on Knowledge-Based E-Government Research Center)

Stage and Period	Major Framework
1 st stage (mid-1980s-mid-1990s)	National Basic Information system, Korea Information Infrastructure
2 nd stage (mid-1990s-late 1990s)	Framework Act for Informatization Promotion, National Framework Plan for Informatization Promotion, Cyber Korea 21
3 rd stage (2001 -)	Special Committee for e-government, Five-year Informatization Promotion Plan

Table 2. E-government key initiatives (Knowledge-Based E-Government Research Center, E-Government in Korea, 2003)

Type	Initiatives
Innovation of services to citizen and business	1. Single window e-government (G4C) 2. Social insurance service portal 3. Home tax service 4. National e-procurement service (G2B)
Enhancement of administrative efficiency	1. National financial information system 2. National education information system 3. Local government information 4. Personnel policy support system 5. E-approval and e-document exchange
Establishing infrastructure for e-government	1. E-signature and e-seal 2. Phased implementation of a government-integrated computer system (BPR/ISP)

e-Government Research Center, 2003) (see Table 1). The key initiatives consisted of three types and 11 initiatives. These 11 high-payoff initiatives were implemented and have been in service since November 2002 (see Table 2).

After the 11 major initiatives, the government plans to drive another initiative named Beyond e-Government, which contributes to providing a wide range of citizens' needs and various value-added services. As part of this initiative, the government launched a five-year informatization promotion plan, e-Korea VISION 2006, in April 2002. This plan focuses on qualitative improvement rather than quantitative expansion, and its aim is to become the leading nation instead of following other leading nations. The e-government, which provides customized online services and open administration, is emphasized as the core strategy eliminating redundant and overlapping processes as well unnecessary paperwork.

VISIONS OF E-GOVERNMENT AS STRATEGIES FOR NATIONAL COMPETITIVENESS

The South Korean government has set its visions of e-government in order to increase productivity and transparency through the strategic use of information and communi-

cation technologies in the public sector. This ultimately will contribute to strengthening the national competitiveness and to positioning South Korea as an advanced nation. To realize these goals, the government formulated the following three strategic objectives of e-government:

1. **A Government that Provides the Best Administrative Services to Individuals:** All administrative institutions disclose the processing of civil affairs so that citizens can apply for and be provided with administrative services at home through an online single window.
2. **A Government that Provides the Right Support for Business:** E-government creates new businesses by establishing ICT infrastructure. In addition, it supports venture businesses and fosters human resources. Furthermore, e-government refines laws and regulations for establishing standards of e-business as well as for creating a safe online marketplace.
3. **A Government with Improved Productivity, Transparency and Democracy:** E-government enables paperless administration through the electronic data interchange (EDI) system, which enhances the productivity and efficiency in public services. Due to the EDI system, it is fully possible that the entire workflow is processed electronically. As a result, the transparency of administration can be improved. Moreover, bilateral communication between the government and citizens contributes to creating a democratic e-government (National Computerization Agency, 2002).

In reality, however, the level of e-government compared with other advanced nations does not seem to be as prosperous as planned. The level of e-government is measured by three global indexes such as the e-government index, the information index, and the transparency index. Among these indexes, South Korea was in a weak position, particularly in the field of government transparency (Ministry of Information and Communication, 2003). Therefore, the government set its specified targets in order to belong to the leading group in the year 2008 (see Table 3).

Due to the little impact of government reform based on the 11 e-government initiatives, the Presidential Committee on Government Innovation and Decentralization intensified e-government initiatives as a key national strategic task to reform administration and civil services. The reason for this is that the limitations of laws and regulations and old practices have not been fully changed, since they were based on an off-line environment. Accordingly, the e-Government Working Committee revised the visions and principles for e-government in May 2003 (see Figure 1). In order to approach the visions, the government finalized the e-government roadmap to include four areas, 10 agendas, and 31 key tasks (National Computerization Agency, 2004).



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