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Korea's move to e-procurement

The Republic of Korea's electronic procurement system has generated considerable benefits—and offers lessons for other countries interested in public procurement reform.

In 1997 the Korean government began reforming its notoriously complicated, nontransparent, corrupt public procurement system, introducing e-procurement to exploit the country's well-developed information and communications infrastructure. Through extensive business process reengineering and information strategy planning, the Public Procurement Service—the agency formerly responsible for buying government goods and services—has been transformed into a one-stop information center.

E-procurement has generated numerous benefits, including:

- Enhanced transparency and public trust—by reducing contacts between officials and suppliers and by sharing information between government agencies and the public.
- Increased managerial efficiency—by achieving economies of scale in procurement, with an estimated $2.5 billion a year in savings from the $26 million investment.

This note analyzes how Korea achieved these outcomes, the lessons of its experience, and the challenges that remain for its e-procurement system.

The need for change

The Public Procurement Service was established in 1949 to run Korea's centralized procurement system. The Procurement Business Law requires all government agencies and local governments to procure their supplies through the service.

In practice, however, the procurement system has centralized and decentralized components. Some local governments are exempt from the Procurement Business Law, and decentralized procurement has been increasing—promoting local autonomy and satisfying various government agencies' desire to handle their own procurement. Decentralized procurement also reflects dissatisfaction with the Public Procurement Service.

Before e-procurement was introduced, legal and regulatory requirements resulted in complicated procurement procedures. Companies seeking government business had to scan newspapers, magazines, and government gazettes to identify opportunities, then register separately with each government agency. Moreover, procuring agencies did not share information. Instead, each maintained its own register of suppliers. This time-consuming, costly application process discouraged suppliers, and prearranged bidding was not uncommon—contributing to corruption. The process also limited economies of scale.

Although a few ministries had computerized procurement systems when reform began in 1997, sophistication was low. And because these standalone systems were incompatible, they could not handle large volumes of procurement. Meaningful change began only when former President Dae Jung Kim initiated comprehensive e-government reform, vowing in his 1998 inaugural speech to have state-of-the-art systems in place by the end of his term in 2002.

A Presidential E-Government Committee was created to oversee e-government reform, which involved 11 major projects: the National Pension System, Internal Tax Service, Integrated Local Administration System, National Education Information System, Financial Management Information System, Human

Electronic public procurement can greatly increase transparency and efficiency

Resource Management System, Electronic Data Interchange, e-Signature System, Governmentwide Information System, Government for Citizens (known as G4C), and e-Procurement.

The approach to reform

E-procurement reform has relied on careful sequencing and pacing

E-procurement reform has relied on careful sequencing and pacing. After reform was approved, the Ministry of Planning and Budget conducted an innovative business process reengineering to translate its work processes into an online system. The ministry also established a project management unit that undertook an information strategy planning exercise, developing action plans to automate the recommended processes. The exercise emphasized the importance of automating the most common purchases first and of actively involving users in the system's design, to ensure its smooth and swift acceptance.

The e-procurement system gives government agencies and suppliers a single point of contact for registration and information. The system has also expanded the selection of products and standardized their classifications. Moreover, it involves simpler documents and faster payments.

The system is linked to more than 30 procurement-related external agencies—including supplier certification agencies, financial clearing institutes, the Ministry of Internal Affairs, the Ministry of Finance, and e-guarantee and e-payment systems. Encryption technology and digital certification ensure secure transactions and protect online information.

The reform has transformed the Public Procurement Service from an agency that conducted the entire procurement process—from public notification and specification review through final payment—into an information center, enabling government agencies to procure goods and services themselves. As a central oversight body, the Public Procurement Service serves a wide range of government agencies and suppliers. Its new functions include:

- Providing integrated information on domestic bidding. (The e-procurement system is the only platform allowed to post bid information on public procurement.)
- Managing the e-procurement system's bidding, contracting, and payment facilities.
- Prequalifying suppliers and standardizing information on products.

Benefits

As noted, two of the new system's greatest benefits are enhanced transparency—and the resulting increase in competition—and increased managerial efficiency, leading to significant savings.

Enhanced transparency and competitiveness

Transparent online information disclosure has been a powerful tool for increasing the accountability of e-procurement decision-makers and system operators. Making the e-procurement system the only channel for public notification has created a real-time procurement information center, with information on more than 420,000 standardized products. All domestic bid notices and results, including price data, are now available online. The system allows cross-agency comparisons of procurement methods and prevents prearranged bidding based on corrupt relationships with potential suppliers. As a result there are far fewer rent-seeking opportunities for Public Procurement Service staff.

Sharing information among government agencies and various associations not only reduces the volume of paperwork submitted by bidders—for example, business licenses, tax reports, and many other documents are no longer needed—it also significantly shortens payment periods. Vendors can request payment as soon as inventory inspection has been approved. Using the e-payment system, payments are usually wired to vendors' bank accounts within four hours. (By law, payment is required within 14 days.) The simplified process has helped triple the number of bidders.

Savings on procurement management

Several indicators show that e-procurement reform has been a positive investment. Between 1998 and 2002 the number of Public Procurement Service staff fell from 1,058 to 935, while the value of procurement they

handled increased by a third, from $12.8 billion to $17.1 billion. Moreover, procurement staff have been retrained to perform their new roles and responsibilities, and two-thirds have been certified in information technology.

The value of procurement handled and the number of public agencies and private companies participating have continued to increase since the e-procurement system was fully implemented in December 2002. Between September 2002 and September 2003 about $20 billion in goods and services were procured through the system, with more than 25,000 public agencies and 87,000 companies participating. This was more than a third of the $55 billion in total public procurement, and 60 percent more than the Public Procurement Service handled in 1998. If all government agencies start using the system, the Public Procurement Service expects to generate $2.7 billion in savings.

The e-procurement system has also increased public sector participation in private e-commerce, because it allows users to search for products on the Websites of private companies. This approach was facilitated by modifying government product codes to be compatible with commercial classifications.

Lessons

Every country interested in e-procurement has distinct goals, and environments for public procurement differ considerably across countries. Still, Korea's experience offers four lessons that can help other countries implement such reform and overcome bureaucratic and other obstacles.

First, and perhaps most important, is the importance of strong leadership. As with other public sector reforms, such leadership is essential—without it, the public sector will hardly change. Throughout his term, President Kim consistently demonstrated strong interest in and commitment to building a strong information and communications infrastructure and advancing e-government. For example, he held regular meetings with the Presidential E-Government Committee to monitor the status of the 11 main e-government reforms.

Second, e-procurement reform is much more likely to be sustainable if it is introduced as part of nationwide e-government reforms, rather than as an isolated change. In Korea e-procurement was among the 11 e-government reforms, increasing acceptance among the staff of the Public Procurement Service. Moreover, each year the public administration is evaluated in terms of its e-progress. Public surveys and studies rank ministries and agencies on their reform efforts, and awards are given to the top performers. These evaluations and awards increased e-procurement efforts among Public Procurement Service staff.

Third, e-procurement requires a certain level of information and communications infrastructure. Although it does not require a state-of-the-art information network, social and economic capacity for information and communications technology should be reviewed to determine the feasibility of reform. Developing countries often try to improve information and communications infrastructure by introducing e-procurement, but doing so imposes serious burdens on financing and implementation efforts. In Korea more than 70 percent of households (about 10 million) subscribe to high-speed Internet services, and in November 2002 more than 60 percent of the country's 43 million residents used the Internet on a regular basis. Almost all private suppliers have high-speed Internet access.

Finally, comprehensive process reengineering must be conducted prior to computerization. Careful sequencing and pacing of reforms are often at least as important as choosing the right technology. The value of e-procurement, like other e-government reforms, lies in its ability to transform rigid, inefficient bureaucracies into more efficient, responsive organizations by redesigning workflows and decisionmaking processes. Thus any e-procurement effort that simply replicates and computerizes an existing system will fall short of expectations.

In Korea process reengineering avoided replicating inappropriate, inefficient pro-

E-procurement requires strong leadership and sufficient information and communications infrastructure

cesses in the new system. Information strategy planning, conducted after business process reengineering, contributed to a smooth multiyear transition. Both processes reviewed legal, administrative, and even cultural differences in procurement processes between national and local governments and state-owned enterprises, and made necessary changes through the Presidential E-Government Committee.

Korea's e-procurement system still faces challenges

Future challenges

Korea's e-procurement system still faces challenges. Although the system's hardware is in place, its operating system must be stabilized, users continuously trained, content reliability enhanced, and product choices broadened.

Computer viruses and worms have become a serious threat to the system's stability. One infection already shut down the entire system—resulting in financial losses to the Public Procurement Service and associated suppliers, and raising concerns about the system's reliability. Information security has become an urgent issue.

Furthermore, some parts of the population have been left out of e-government. A governmentwide policy is needed to narrow the widening societal gap in information and communications technology capacity.

For the full effect of e-procurement reform to be felt, its changes must be internalized, and savings in government agencies' procurement should be reflected in their expenditure management. Engaging treasury officers in the overall procurement process—from demand planning, budget planning, acquisition management, and logistics management, to final disposal—would enable agencies to prepare more accurate expenditure plans, helping ensure more predictable procurement in support of service delivery. Developing this link would require integrating the e-procurement system with the treasury information management system to allow timely data exchange between them.

It is still unclear whether e-procurement reform is fully supported by Korean society, the Public Procurement Service, suppliers, and government agencies. The simultaneous change in 2003 of two reform champions—President Kim and the administrator of the Public Procurement Service—will be a good test of whether the reform has truly been internalized and will be sustained.

Further reading

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