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**Sharing e-Government Procurement Strategies & Approaches  
(Centering on Korea Online e-Procurement System of PPS)**

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## **I . Overview of Government Procurement**

### **I-1 Features of GP**

- GP market share accounts for about 10–15% of GDP of each country.
- Main principles of GP include transparency, accountability, fairness, open competition, non-discrimination.
- Governments use GP as a means to support their economic policies. Thus, Governments used to implement protective measures for GP markets.

### **I-2 International Organizations for GP**

There are two pillar international organizations that relate to government procurement on a global basis.

- Government Procurement Agreement (GPA) in WTO
  - GPA was established in 1994 as a plurilateral agreement with a view to opening GP markets of member countries (38 as of Sept 2006).
  - Currently negotiations for revisions are underway, mainly for the purpose of lowering threshold values and expanding coverage.
- Government Procurement Experts' Group(GPEG) in APEC
  - GPEG is composed of 21 member economies in the Asia & Pacific Region
  - GPEG adopts non-binding principles for GP. These principles include value for money, accountability, fair dealing, non-discrimination.
  - GPEG shares information on the GP system, whilst paying special attention to the progress made by the respective e-Procurement systems of each economy

## **II . Current Status of e-Government Procurement**

### **II-1 Effects of e-GP**

**Main effects of e-GP can be categorized into the followings.**

- **Enhances transparency in procurement**
  - Digitalization has the expectation of ensuring that the procurement process is made more transparent and fair, thus leading to the increase of accountability and the reduction of illegal practices.
- **Increases efficiency & cost-effectiveness**
  - Increased transparency results in increased efficiency by preventing improper

pressure and corruption

- o Digitalization saves resources, while improving the rapidity of the decision-making process, thus leading to the increase of cost-effectiveness
- o Enables equal access to the GP market
  - The e-Procurement system guarantees that any qualified firm can participate in the bidding process since all information will be publicly available.
  - This ensures full disclosure to any participants and reduces the possibility of irregularities.**

## **II-2 Other Benefits of e-GP**

e-GP is also expected to garner beneficial aspects such as :

- o Setting standards for e-Market
  - Since Government is a big buyer in a national economy, and e-GP has e-commerce as its core system element, e-GP provides standards for private firms to learn from and refer to
- o Inducing private sector to likewise adopt advanced techniques and systems
  - Firms are compelled to use the e-GP system, if they wish to continue doing business with the government
  - As a result, government can encourage private sector to adopt its more advanced techniques and systems by resorting to market principles and using economic incentives

## **II-3 Developmental Status of Countries' e-GP**

- o Countries vary in the level of e-GP, ranging from top leader, intermediate, to least prepared groups as noted in the UN e-Government Readiness Index. A wide digital gap exists among nations.
- o There are still difficulties in defining standardized e-GP system due to different status of ICT infrastructure in each country.

## **III. Concept of Korea Online e-Procurement System (KONEPS)**

The concept of KONEPS is based on the following characteristics :

- o Digitalization of the entire procurement process
  - KONEPS is designed to digitalize the entire procurement process from purchase request, bid notice, contract, through to final payment and also serve as a single window.
- o KONEPS enables the entirety of public organizations to jointly use this single

window.

- One-time registration suffices. In KONEPS bidders can participate in all types of biddings undertaken by public organizations.
- o KONEPS provides Integrated bidding information
- **In KONEPS all bidding information is available through one central location.**

#### **IV. Effects of KONEPS**

**KONEPS has brought about the following effects :**

- o Achieving lower purchasing prices & decreased administrative costs
- o Providing better access to information and greater opportunities for businesses, especially for small & medium-sized firms
- o Enhancing transparency through automatic disclosure of information
- o Accomplishing more efficient and convenient purchasing for purchasing agencies

#### **V. Objectives of KONEPS**

**The establishment of KONEPS was aimed to achieve following objectives :**

- o **Efficiency**
  - KONEPS will improve convenience of business process by procurement informatization
  - KONEPS will optimize the amount of workforce and time by establishing a standardized business process
  - KONEPS will enable delivery on time via an efficient business response
- o **Transparency**
  - Increasing transparency by business process standardization and openness
  - Creating the environment for the optimal price by promoting the participation of businesses and competition
  - Obtaining the right products or services from a responsive and reliable supplier
- o **Support for business**
  - Expanding the opportunity of business participation via a single window for bid notice
  - Minimizing the business process and required documents by sharing common information
  - Promoting business activity and performance by speedy delivery and payment

#### **VI. KONEPS Establishment Strategy**

The following are strategies taken for overcoming major obstacles :

Need for overall change in procurement processes and practices

→ **Take a step by step approach to minimize errors**

Need for a government-wide organization to get various stakeholders involved

→ **Create a government-wide single structure to promote project**

Need for a legal framework to implement e-Procurement system

→ **Set up the legal framework for the establishment of KONEPS**

Need for reforming the existing manual process for smooth informatization

→ **Simplify the business process for informatization**

#### **VI-1 Step by Step Approach to Minimize Errors**

The table below shows how KONEPS came into being as a result of taking a step-by-step approach.

<b>Step 1</b>	<b>G2B Innovation Plan [September 2001]</b>
<b>2001. 4</b>	<b>Setting up Task Force to facilitate G2B transaction</b>
<b>2001. 6</b>	<b>Issuing a directive for preventing overlapping investment on a-Procurement system</b>
<b>2001. 7</b>	<b>Setting up an execution plan for innovation of procurement toward model design for e-procurement</b>
<b>2001. 12</b>	<b>Completing BPR/ISP for establishing e-Procurement roadmap</b>
<b>Step 2</b>	<b>System Building [February 2002]</b>
<b>2002. 3</b>	<b>Commencing system building after selecting a developer (US\$ 24 Million)</b>
<b>2002. 4</b>	<b>Establishing Task Force for G2B system building</b>
<b>2002. 9</b>	<b>Starting KONEPS test service</b>
<b>2002. 10</b>	<b>Officially launching KONEPS</b>
<b>2002. 11</b>	<b>Beginning operation of KONEPS Call Center and user training</b>
<b>2002. 12</b>	<b>Completing linkages to other external systems</b>

#### **VI-2. Integrated Body to Promote Project**

- o Due to the nature of the procurement business involving many government agencies
  - Need to revise laws, expand usage, and establish greater linkages to external

systems

- o Promoting the system building through government-wide e-Procurement implementation body
  - A Special e-Government Committee was established with the responsibilities for the management of 11 e-government projects including procurement, civil service(G4C), education, medical service, and tax.
  - In the procurement sector there were two Task Forces and one Review Group consisting of 54 institutions . One T/F was for the support of G2B, and the other T/F was to facilitate G2B transaction.
  - G2B Support T/F was responsible for providing support in regard to revision of laws, linkage and standardization. The other T/F was engaged in the practical matters including establishment of systems and D/B, revision of laws and regulations, and comprehensive coordination.
  - Lastly, the Review Group was composed prospective user organizations and experts from external organizations which will be linked with future KONEPS. This Group was to work out linkage method and conduct practical test of the system.

### **VI-3.1 Establishment of Legal Framework for KONEPS**

- o Prior to KONEPS, three Acts regarding e-Commerce and e-Document were enacted in July 1999, thus basic legal foundation for KONEPS was already available.
- o General matters relating to KONEPS such as the validity of e-Document were regulated by these Acts. These three basic Acts include :
  - 1) Framework Act on e-Commerce  
This Act recognizes the validity of electronic document and signature to promote e-Commerce
  - 2) Digital Signature Act for Expansion of e-Documents  
This Act defines digital signature in order to recognize the validity of electronic document
  - 3) e-Government Act for Sharing the Administrative Information  
This Act requires that the works of government organizations should be based on the electronic documents.

### **VI-3.2 Revision of Procurement-related Laws**

- o Procurement-related laws which were in force before KONEPS was born had been

designed for paper-oriented manual work and not suitable for e-Procurement establishment. As a result, these laws had to be revised in September 2002 to become e-Procurement friendly for promotion of e-Procurement. The revisions were made in the following manner.

### **1. Revising laws and regulations to activate e-Procurement including e-Tendering :**

- o **To promote e-Procurement, a new rule was established for public organizations to execute in principle all bids electronically.**

### **2. Setting up compulsory regulation on using KONEPS**

- o Public organizations are required to register on KONEPS all bid notices, names of firms on which they are imposing disciplinary measures, and all contract records.
- o Public organizations are allowed to jointly use company information posted on KONEPS.

### **3. Revising regulations to simplify procurement processes**

- o **Bidders are exempted from submitting qualification evidence document required for bid participation.**
- o **Bidders are made to submit reduced number of documents related to contract and other business.**

#### **VI-4.1 Simplification of Business Process**

PPS streamlined business procedures by eliminating or reducing traditional procurement processes which were inappropriate for the establishment of e-Procurement

- o Among business procedures (565) in the areas of purchasing, construction, and services, 152 unnecessary procedures were abolished. Also, out of 565 business procedures , 300 procedures (300) that needed improvement were modified to be suitable for e-procurement.

Types	Total Processes	Abolished Processes	Modified processes	Changed processes
Purchase	192	50	104	154(80.2%)
Construction	164	43	83	126(76.8%)
Services	209	59	113	172(82.3%)
Total	565	152	300	452(80.0%)

In order to eliminate the inconvenience for users to submit various procurement

documents, KONEPS has been connected to related information systems of other agencies

- o Due to KONEPS' linkage to various procurement-related agencies (surety insurance, certification-related agencies, banks, etc), it has become unnecessary for bidders or contractors to submit various documents in person.
- o As a result of linkage to agencies' internal systems, employees of purchasing agencies do not need to enter the same data into different systems repeatedly: once data are entered into KONEPS, these data are then exchanged and shared between KONEPS and internal systems.
- o With linkage to other agencies' e-Procurement systems already established, and as a result of bid-related information sharing, KONEPS has contributed to the increase of the business productivity and efficiency

## **VII. KONEPS Expansion Strategy**

### **Minimizing user resistance by operating customer satisfaction center**

- o In line with the start of KONEPS services, PPS established in September 2002 a Call Center.
- o The Call Center handles user questions about the system on a real-time basis. It handled 75,000 cases during three months in 2002, 422,000 cases in 2003 and 496,000 cases in 2004.
- o The Center provides around-the-clock replies to user questions by telephone, e-mail, and PPS bulletin board. In 2004 PPS also established the Web Call Center for more advanced services. It provides Screen-sharing between a web consultant and user for Q&A.

### **Strengthening user awareness of e-Procurement through training programs**

- o PPS provided mock bidding service for users to better adapt to KONEPS and assisted users to experience and learn the system on their own
- o PPS raised user awareness about the system by user education :
  - Providing an education tour for employees of purchasing organizations and suppliers
  - Conducting nation-wide education at 22 e-Commerce Support Centers
  - Establishing education centers at the PPS Head Office and regional offices for the training of officials



- Providing education for 23,000 users in 2003 alone
- Directly visiting public organizations to provide education
- o PPS distributed online education manuals via PPS website

#### **Enhancing user convenience by sophisticating KONEPS (Sept.03~Sept.04)**

- o PPS provided tailored information through CRM service on a real-time basis
  - e-Bidding notices, award information, certificate expiration, etc.
- o PPS has enabled the users to enjoy mobile e-Bidding service through PDA
  - Users can search for e-Bidding information and participate in bids at anytime and any location even when in transit
- o PPS introduced Data Ware system to provide real-time information on KONEPS
- o In 2006 PPS expanded the connection with external systems, thus increasing the number of linked organizations from 34 to 77
- o In KONEPS a one-stop service for all procurement processes is possible
- o KONEPS handles documents through the internet by digitalizing 166 types of procurement-related documents including bid, contract, and payment request

#### **Securing user confidence in KONEPS by strengthening system stability & security**

- o PPS established the Back-up Center to guarantee a Non-stop service (Dec.03)
  - Recovery of services is possible within two hours after the occurrence of a system error or failure
- o PPS employed the PKI-based encrypting technology, thus eradicating any possible e-Bidding related wrong-doings
  - The use of KONEPS is continuing to increase as a result of enhanced reliability

Category	2003	2004	2005
<b>Registered Purchasing agencies</b>	<b>25,529</b>	<b>27,788</b>	<b>29,844</b>
<b>Registered Suppliers</b>	<b>92,042</b>	<b>112,336</b>	<b>136,129</b>
<b>e-Bidding Execution</b>	<b>99,020</b>	<b>113,290</b>	<b>140,779</b>

### **VIII. Recommendations**

1. Strong Government leadership & commitment to e-Procurement establishment
  - Government must fully understand the importance of e-Procurement and support

the project in both legal and financial aspects

2. Setting up a government-wide collaborative organization

- Organize a government-wide task force involving related agencies
- Assign team leaders for decision-making, plan-execution, and intra-agency collaboration

3. Integrate related parties and share information

- Integrate related parties from purchasing agencies and sellers
- Create a strong collaborative relationship among these partners
- Full communication is the key to attaining the “win-win” result.

4. Standardize operation process for e-Procurement

- Review both current and new process for improvement of process efficiency
- Reconfigure and eliminate process steps that can be improved or are unnecessary

5. Adopt a step by step approach

- Start from the areas that can offer the largest and fastest return-on-investment to demonstrate the value of e-Procurement

<In the case of KONEPS>

Procurement EDI (1997) → e-Shopping Mall (1998) → e-Tendering (2000)

→ Electronic payment (2001) → Integrated e-Procurement (2002)

6. Never stop measuring results and refining processes

- Continually evaluate performance and user satisfaction
- Seek out ways to further reduce expense and increase efficiency