Innovating Public Procurement

Through KONEPS

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Government of Korea
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Procurement System in Korea
Procurement System in Korea

Combination of centralized and decentralized systems

- The Central Procuring Agency (PPS)
- Departments and Agencies

The Volume of Public Procurement (FY 2008) : US$ 104B

Centralized : $ 29B(28%)
Decentralized : $ 75B(72%)
### Procurement System in Korea

PPS: Governmental Body for Procurement

- **PPS** is responsible for procurement of goods, services and construction works with the following thresholds:

<table>
<thead>
<tr>
<th>Type</th>
<th>Goods</th>
<th>Construction Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Gov’t Agencies</td>
<td>Above $100,000</td>
<td>Above $3,000,000</td>
</tr>
<tr>
<td>Local Gov’t</td>
<td>Autonomous</td>
<td>Special works</td>
</tr>
</tbody>
</table>

Other procurement: each public entity.
Public Procurement Service (PPS)
Public Procurement Service (PPS)

- Created in 1949 as a provider of supply-related services for government departments and agencies
- Operated on a business-like, fee-for-service basis

- Customers: Central & Local governments, State-owned enterprises, etc
Buys goods and services valued more than US$ 100K

Contracts for construction services valued more than US$ 3M

Stockpiles raw materials such as aluminium, copper, etc.

Manages government-owned properties

Operates Korea ON-line E-Procurement System (KONEPS)
Public procurement market value: USD 104bn in 2008
- Approx. 10% of total GDP

PPS covers USD 29BN, 29%
Background of KONEPS
Problems prior to KONEPS

- Paper based Manual work
- Inefficient & non-transparent practices
- Repetitive registration with each org

Shifting procurement paradigm to resolve these problems
TRANSPARENCY
via reduced face-to-face contacts and real-time information release

EFFICIENCY
via digitalization of the entire procurement procedures

AVOID BUDGET WASTE
by preventing redundant system development by each orgs

Fast and Trustworthy Procurement Administration
Development of KONEPS

**Preparation Period** (1997-2001)
- Electronic Data Interchange System (1997)
- Online Shopping Mall System (1998)
- e-Guarantee and e-Payment System (2001)

**Gov’t-wide Expansion** (2002-2004)
- As one of 11 e-government projects, KONEPS was developed for the use of the whole public organizations (2002), Disaster Recover System, Data Warehouse, CRM

**Further Advancements** (2005~)
- PDA Support for search and bidding (2005)
- Comprehensive On-line Shopping Mall (2006)
- Mobile phone support for bidding (2008)
Characteristics of KONEPS
Characteristics of KONEPS

- Integration
- One-Stop Service
- Single Window
- 3 Major Features
Characteristics of KONEPS

Single Window for Public Procurement

- Integrated provision of all bid information
- One time registration at KONEPS suffices participation in all tenders
Characteristics of KONEPS

Integration of Entire Procurement Work

- All business is conducted via the internet (registration, bid notice, bidding, contracting, payment)
- One click purchase at online shopping mall

One-stop Service

- 160 types of documents handled online by linkage with 86 external systems
KONEPS at a Glance

- **PPS Operation**
- **Public Organizations (Buyers)**
- **Private Businesses (Suppliers)**

**Use**
- **Portal**
  - e-Procurement ASP
  - Supplier supporting service
  - Unit contract system
- **Integrated notice**
  - User registration
  - Supplier’s Performance
  - E-Payment
  - E-Guarantee
- **Documents distribution and outside linkage**

**Linkage**
- Certification-Related agencies
- Ministry of Government Administration and Home Affairs
- Construction-related Associations
- Korea Financial Telecommunications & Clearings Institute

**e-Procurement system**
- Goods classification system
- Contracted products catalogue
- Commercial products catalogue
e-Tendering Flow

1. Issue encryption key
2. Tender Notice
3. Bid Opening
4. Verify decryption key
3. Award Notice
3. Record bidding time
3. Bid payment
3. Submit warranty (upon bidding)

PPS/Public Buyers

NIA

KFTC

Surety Companies

Supplier

Authentication Authority

Issue digital signature certificate

• KFTC: Korea Financial Telecommunications & Clearings Institute
• NIA: National Information Society Agency
Reliability and stability in e-transaction are secured thru digital signature and encryption technology. (PKI method is used)
Network Security
- Separation of Internet and Extranet, Dual Fire-wall, Intrusion Detection System, Security Solutions, etc
- Periodic Security Check-up

System Operation complying with
- Check and Balance between PPS and outsourced Operator, Programmers and System managers

Access control to system, program and D/B
- National Computing & Information Resources Center
- Automatic management of log access and program modification history, post-verification system
- On-line monitoring of program modification by the independent body

Service Stability against accidents
- Dual operation of servers and networks, Back-up Center(Data mirroring), ITSM
E-payment is made after inspecting and accepting the final products.
The online shopping mall on which public orgs. can purchase goods which are registered by PPS thru unit price contract or multiple supplier award with supplier.
Coping with Obstacles in Establishing KONEPS

- **Resistance within**
  - "Wouldn't e-Procurement make PPS's function obsolete?"
  - "e-Procurement would weaken PPS's authority"

- **Fear and antipathy towards changes**

- **Emphasis on Creating New Roles and Functions**

- **Sharing Awareness of the Need for Change**

- **Setting a Clear Vision**
Coping with Obstacles in Establishing KONEPS

Need for a cross-ministerial collaborative network
- promote e-procurement system establishment by individual orgs

KONEPS is a government-wide project requiring linkage with external systems

- Avoid Redundancy in System Development
- Establish Government-wide Collaboration
- Formation of Joint Practical Work Group
Coping with Obstacles in Establishing KONEPS

- Persuading government orgs. and suppliers
- Temporary inconvenience and fear for changes and innovation
- Raise understanding
- Persuade through education
- Alleviate customer anxiety
Contributions to Public Procurement
Public Procurement in Korea

**Market Participants**

- **38,000 Public Entities**
  - Independent Orgs: 38%
  - Central Government: 13%
  - Local Governments: 18%
  - Government Cooperations: 2%
  - Educational Institutes: 29%

- **140,000 Suppliers**
  - Foreign Procurement: 21%
  - Construction: 38%
  - Services: 39%
  - Goods: 2%
Use of KONEPS

- **e-Bidding**

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
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<tbody>
<tr>
<td>2003</td>
<td>99,020k</td>
</tr>
<tr>
<td>2006</td>
<td>207,633k</td>
</tr>
<tr>
<td>2007</td>
<td>213,539k</td>
</tr>
<tr>
<td>2008</td>
<td>수정k</td>
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</tbody>
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2003: 1540m
2006: 2082m
2007: 2096m
2008: 2100m
Use of KONEPS

Online shopping mall users

<table>
<thead>
<tr>
<th>Year</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>112</td>
</tr>
<tr>
<td>2006</td>
<td>553</td>
</tr>
<tr>
<td>2007</td>
<td>665</td>
</tr>
<tr>
<td>2008</td>
<td>700</td>
</tr>
</tbody>
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Highly Enhanced Productivity

Transaction cost savings of 4.5 billion USD

- No longer need for personal visits
  - Time and transportation cost saving of 4.1 billion USD

  - Savings from costs associated with personal visits to govt. orgs.: 2.8 billion USD
  - Savings from standardization of procurement procedures: 0.7 billion USD
  - Savings from linkage with relevant external systems: 0.4 billion USD
  - Savings from streamlined procedure: 0.2 billion USD

- No longer need for manual paperwork
  - Time cost saving of 0.4 billion USD
Highly Enhanced Productivity

*Transaction cost savings of 4.5 billion USD*

**Transaction Cost Saving**

- **Savings for govt. orgs.**
- **90% Savings for suppliers**
Highly Enhanced Productivity

- 5 fold work productivity since the introduction of KONEPS

**Total No. of Contracts**

- '97: 190,000
- '01: 320,000
- '08: 810,000

**Total No. of Employees**

- '97: 1,058
- '01: 935
- '08: 913

**Productivity: 5 Fold**

No. of Contracts per Employee

- '97: 179
- '01: 343
- '08: 890
Transparent Public Procurement Accomplished

- Real-time Information
- Extended open release of contract details
- Reduced direct contacts from online process

Real time disclosure of entire contract process
- Bidders can have real time info on the progress of bidding and contract
- Eligibility test for successful bidder thru KONEPS

Inspection/payment thru internet
- No need to visit procurement offices
Promotion of Private e-Commerce Development

Contributing to expansion of e-Commerce base

**e-Procurement by KONEPS**

- Application of digital signature authentication in e-Bidding
- Certified authentication for enterprises mainly for e-Procurement
- Gov’t & enterprises jointly used certified authentication electronically
  ➔ Expanding e-Commerce base

**Development of e-Authentication industry**

- Promoting technological base for e-Procurement including digital signature and security
- Encouraging firm establishment of certified authentication market including internet banking and online stock trading

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>'01</td>
<td>1.9 m</td>
</tr>
<tr>
<td>'03</td>
<td>8.7 m</td>
</tr>
<tr>
<td>'07</td>
<td>11.9 m</td>
</tr>
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Contributions to Development of SMEs

**SMEs**

**SMEs registration**
- 169,000 SMEs registered with KONEPS, 99.5% of the total 170,000
- 1,996 registered with online shopping mall, 97% of the total 2,057

**SMEs e-Bidding & contract award**
- 20.78m, 99.8% of total 21 mln
- award results 207,000, 99% of total 210,000 awards

**SMEs share**
- awarded contract amount $9 bn out of total 29 bn
Enhancing Procurement Capabilities

Upgrading Public Procurement Expertise

- Supporting Info & knowledge mgt
- Assisting purchase
- Establishing policies & mgt for systems

Mgt & provision of Integrated info on firms & products
Providing materials on best practice
Systematic mgt of procurement results
International Recognition
International Recognition for KONEPS

2003
1st UN Public Service Award

2004
"No further action further action required" OECD

2005
KONEPS procedures reflected in international standards

2006
Received the Global IT Excellence Award from WITSA

2007
Honoured with E-ASIA AWARD
Thank you