Current Status and Prospect of e-Trade in Korea

Korea’s Strategy for Trade Facilitation

Nov. 12th, 2008

Korea Polytechnic University
e-Business Dept.

Kim, Yong Jae
e-Commerce Market Status in 2007

• e-Commerce Trade Volume

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>B2B</th>
<th>B2G</th>
<th>B2C</th>
<th>Other</th>
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<tr>
<td>2005</td>
<td>358.45</td>
<td>319.20</td>
<td>29.04</td>
<td>7.92</td>
<td>2.29</td>
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<tr>
<td>2006</td>
<td>413.58</td>
<td>366.19</td>
<td>34.44</td>
<td>9.13</td>
<td>3.83</td>
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<td>2007</td>
<td>516.51</td>
<td>464.46</td>
<td>36.80</td>
<td>10.22</td>
<td>5.03</td>
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</tbody>
</table>

(Unit: Billion USD, 1USD≈1,000Won)

Source: Korea National Statistical Office, Mar. 2008

• Broadband Penetration

- Internet User : 34,820,000
- (Wired) Internet access at home: 79.8%
- xDSL : 82.9%

• Cyber Shopping Malls(Number)

Total: 4,508
Specialized malls: 4,302
General malls: 206
### e-Business Status in 2006

#### Digital divide by Large/Small enterprise

<table>
<thead>
<tr>
<th>Enterprise</th>
<th>Environment</th>
<th>Resource &amp; Infra</th>
<th>Process</th>
<th>People</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>53.6</td>
<td>54.1</td>
<td>49.1</td>
<td>49.3</td>
<td>46.4</td>
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<tr>
<td>Large Enterprise</td>
<td>63.7</td>
<td>68.3</td>
<td>64.6</td>
<td>64.1</td>
<td>60.0</td>
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<tr>
<td>SME</td>
<td>44.6</td>
<td>41.4</td>
<td>35.1</td>
<td>36.0</td>
<td>34.1</td>
</tr>
</tbody>
</table>

(Source: KEBIX 2006, KIEC 2007)

#### Digital divide by Industry

![Digital divide by Industry graph](image)

(Source: KEBIX 2006, KIEC 2007)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>• Definition</td>
<td>• Definition</td>
<td>• Definition</td>
<td>• Definition</td>
<td>• Definition</td>
<td>• Definition</td>
<td>• Definition</td>
<td>• Definition</td>
</tr>
<tr>
<td>• Information of e-Trade</td>
<td>• Information of Buyer and seller list</td>
<td>• Information of B2B</td>
<td>• Information of G2B</td>
<td>• Information of G4B</td>
<td>• Information of e-Education</td>
<td>• Information of G4B, G2B, G4C, B2b, e-Trade, e-Education, Tax.</td>
<td>• Information of Global Standard</td>
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<tr>
<td>• Service Guide</td>
<td>• Service Guide</td>
<td>• e-Procurement</td>
<td>• Service Guide</td>
<td>• Service Guide</td>
<td>• e-Learning Systems</td>
<td>• Service Guide</td>
<td>• Electronic Document</td>
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<tr>
<td>• Service Application</td>
<td>• Service Application</td>
<td>• Service Application</td>
<td>• Service Application</td>
<td>• Service Application</td>
<td>• e-Learning Systems</td>
<td>• Personnel Policy Support System</td>
<td>• ebXML</td>
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<tr>
<td>• Tax</td>
<td>• Tax</td>
<td></td>
<td>• Notice</td>
<td>• Notice</td>
<td>• e-Learning Systems</td>
<td>• Service Application</td>
<td>• VAN EDI</td>
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<tr>
<td>• Custom</td>
<td>• e-Procurement</td>
<td></td>
<td>• Q&amp;A</td>
<td>• Q&amp;A</td>
<td>• ISP of Primary School (3,043 schools)</td>
<td>• Service Application</td>
<td>• WEB EDI</td>
</tr>
<tr>
<td>• How to export and import goods</td>
<td>• Payment &amp; Settlement</td>
<td></td>
<td>• Notice</td>
<td>• Notice</td>
<td>• ISP of Education Office</td>
<td>• Q&amp;A</td>
<td>• Notice</td>
</tr>
<tr>
<td>• Q&amp;A</td>
<td>• Buying Item</td>
<td></td>
<td></td>
<td></td>
<td>• Content</td>
<td>• e-Trade Solution (ERP, SCM etc)</td>
<td>• Electronic catalogue</td>
</tr>
<tr>
<td></td>
<td>• Notice</td>
<td></td>
<td></td>
<td></td>
<td>• Notice</td>
<td></td>
<td>• Payment &amp; settlement</td>
</tr>
<tr>
<td></td>
<td>• Q&amp;A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Goods &amp; row material standardization</td>
</tr>
</tbody>
</table>
International Trade Reference Model (UMM)

Commercial Procedures
- Establish sales contract
- Order goods
- Advise on delivery
- Request payment

Transport Procedures
- Establish transport contract
- Collect, transport and deliver goods
- Provide waybills, Goods receipts, etc.

Regulatory Procedures
- Obtain im/export licenses etc.
- Provide Customs Declarations
- Provide cargo Declarations
- Apply security measures
- Clear goods

Financial Procedures
- Provide credit rating
- Insurance
- Execute payment
- Issue statements
Cross Border Data Model

Private Sector

- Seller
- Buyer

Trading Partner

- Bank
- Transportation Company

Third Party

- Shipping Company
- Insurance Company

Single Window

Public Sector

- Custom Service
- Export License
- Import License

National Logistics Service

MFCS
How to selecting Buyer by e-Trade Portal site such as www.google.com or www.alibaba.com

1. circular letter
2. Inquiry Letter
3. offer
4. counter offer
5. firm offer
6. Sale Note
7. L/C open
Collection

- L/C copy
- Invoice
- Packing list
- Bill of lading (Negotable)
- Inspection of certificate
- Certificate of origin
- Bill of exchange

Shipping Document

- L/C Advice
- Request Payment
- Payment = Bill of lading
- Cash Deposit (L/C Amount)
- Real Estate Deposit

L/C Advice

- Advising (Nego) Bank
- Open Bank
- Reimburse Bank

L/C Sending

- Seller
- Buyer
- Advising Bank
- Open Bank
- Reimburse Bank

L/C Amount

- Cash Deposit (L/C Amount)
- L/C Amount Acceptance

Request Payment

- Seller
- Advising Bank
- Open Bank

L/C Open

- Cash Deposit (L/C Amount)
- Reimburse Bank

Reimburse Bank

- Advising (Nego) Bank
- Open Bank
- Seller

Transfer

- Advising Bank
- Open Bank
- Reimburse Bank

9
<table>
<thead>
<tr>
<th>Organization</th>
<th>Since</th>
<th>Basis</th>
<th>Implementation</th>
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<tr>
<td>Korea EDIFACT Committee (KEC)</td>
<td>1991~</td>
<td>Act on the Promotion of Trade Process Automation</td>
<td>Development of EDI Standard based on UN/EDIFACT</td>
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<tr>
<td>Korea Industrial Information EDI Committee</td>
<td>1996~</td>
<td>Act on the Development of Industrial Infrastructure</td>
<td>Implementation of EDI Standard in various domains</td>
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<td>Korea EDIFACT Committee (KEC)</td>
<td>1999~</td>
<td>Framework Act on Electronic Transaction</td>
<td>Promotion of e-Business &amp; technological interoperability</td>
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<tr>
<td>Korea E-Document Standard Committee (KEC)</td>
<td>2005~</td>
<td>Framework Act on Electronic Transaction (Revised)</td>
<td>Expansion of standardization target</td>
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## KEC Standards

### By Domains

<table>
<thead>
<tr>
<th>Domain</th>
<th>EDI</th>
<th>XML/EDI</th>
<th>XML</th>
<th>Library</th>
<th>KECT</th>
<th>KECR</th>
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<td>Trade</td>
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<td>27</td>
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<td>Cargo Insurance</td>
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<td>Sea Transport</td>
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<td>Land Transport</td>
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<td>1</td>
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<td>1</td>
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<td>9</td>
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<td>Stationery</td>
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<td>12</td>
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<td></td>
<td></td>
<td></td>
<td>12</td>
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<tr>
<td><strong>Sub-Total</strong></td>
<td><strong>262</strong></td>
<td><strong>53</strong></td>
<td><strong>295</strong></td>
<td><strong>1</strong></td>
<td><strong>2</strong></td>
<td><strong>1</strong></td>
<td><strong>Total: 614</strong></td>
</tr>
</tbody>
</table>
e-Government Standard

Example

Submit for Int’l Standardization of Contents

Submit for National Standardization of Contents

Standard Management System (e-Government)
ebXML Framework based e-Trade Systems

International Central Registry & Repository

Korea Central Registry & Repository

Electronic Central Registry & Repository

Samsung Electronic

CPP CPA e-Business start

U. S. A Central Registry & Repository

Electronic Central Registry & Repository

IBM
Development Stage of Korea’s e-Trade

**1st Stage (1990~1999)**
- Act on Promotion of e-Trade
- Foundation of common e-Trade Platform based on VAN / EDI

**2nd Stage (1999~2004)**
- L/C, E/L, I/L
- Offer, Insurance
- Export Clearance
- Import Clearance
- Manifest
- Tariff Refund
- Certificate of Origin
- Letter of Guarantee
- Delivery Order

**3rd Stage (2005~)**
- Single Window : u Trade Hub
  - Establishment of electronic trade platform
  - e-Trade Document Repository
  - Integrated and consolidated one-stop trade services

**Trade Automation (VAN, UN/EDIFACT)**
**Internet e-Trade (Internet, XML/EDI)**
**Single Window (Internet, webXML)**
Model 1: Single Authority

Model 2: Single System
Model 3: Single Information Transaction System

3-c: 'Automated Information Transaction' System

Trader (incl. Transport)
Single Window Models

Korean Case

User

Trade Chain

Traders

Single Window

Electronic

License/Certificate Authority

Customs Service

Bank

Logistics Company

Global Network
Benefits Categorized

On government side

• Higher transparency in corporate activities
• Correct revenue yields
• Improved trader compliance

On private side

• Minimizing data reentry and reducing errors and inefficiencies
  • Expedited Procedures
  • Cutting cost
• Maximum usability with one-stop service
# uTradeHub Project

**Goal**: To cope with Korea’s growing trade volume by upgrading the Electronic trading system into a single window system.

**Project Period**: 2004 ~ 2007

**Project Cost**: About 30 million (USD)

**Leading Agencies**: Ministry of Knowledge Economy (MKE), Korea International Trade Association (KITA), Korea Trade Network (KTNET)

### Year 1
- **Building Core Infrastructure (2005)**

### Year 2
- **Enhancing Infrastructure (2006)**

### Year 3
- **Upgrading User Environment (2007)**
• **Foundation**

• **Role: Project Management Office**
  – Implementation of 33 tasks from ‘**e-Trade Korea 2007**’ roadmap
  – Secretariat of National e-Trade Committee
Legal Infrastructure

- **Trade Automation Act (1991)**
- Revised the Act into ‘e-Trade Facilitation Act’ (2005)
- Revised Commercial Law to legalize e-Bill of Lading (2007)
Standardization

Objective

- To guarantee openness and interoperability of uTradeHub with international standards so that electronic trade documents may be exchanged among related entities domestically and internationally
- For uTradeHub to illustrate best practices of trade facilitation through national single window platform

Domestic & Int’l Standards

Korea

- Guidelines for development of XML Electronic messages(v3.0), Korea Institute for Electronic Commerce (KIEC)
  - KIEC XML CC Library, KIEC

Int’l

- XML Naming & Design Rules, UN/CEFACT ATG, 2004
- UN/CEFACT Modeling Methodology, UN/CEFACT TMG, 2002
Standardization Process of uTradeHub

1. Process Analysis ('05.09)
   - Business Process Analysis
   - Selection of docs for standardization

2. Document Standardization ('06.01 ~ '06.12)
   - Analysis of Docs
   - CC abstraction and analysis
   - Standardization

3. Standards Registration ('07.04~11)
   - Standards registration at Korea EDIFACT Committee (KEC)
Korea’s e-Trade with uTradeHub

Image of a diagram showing the connections between various entities such as government agency, customs, bank, logistics company, and global. The diagram highlights the uTradeHub service with modules for marketing, licensing, logistics, customs clearance, foreign exchange/payment, and other related functions.
Core Infrastructure: e-Trade Doc Repository

- e-Document Circulation
  - e-Document Lifecycle Management
  - Metadata Registry
  - Form & Version
  - Association of e-Document Business Relationship

- Trading Partner

- Related Party

- Government

- e-Trade Document Repository
  - e-Document Validation & Certification
  - Secure Access Control
  - e-Document Encryption

- EDM
- XML
- DVC
### Business Process in uTradeHub

<table>
<thead>
<tr>
<th>Insurance</th>
<th>Shipping and transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Export insurance</td>
<td>- Shipping request</td>
</tr>
<tr>
<td>- Credit Evaluation</td>
<td>- e-B/L</td>
</tr>
<tr>
<td>- Caro insurance</td>
<td>- Cargo delivery</td>
</tr>
<tr>
<td></td>
<td>- e-D/O (Master/House)</td>
</tr>
<tr>
<td>Requirements Certification</td>
<td>- Bonded delivery request</td>
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<td></td>
<td>- Delivery allocation request</td>
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<tr>
<td>Requirements Certification</td>
<td>- Certificate of Origin</td>
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<tr>
<td>- Import requirement certification (customs director)</td>
<td>- Financing and Settlement</td>
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<td>- Import requirement certification (recommendation)</td>
<td>- Letter of Credit</td>
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<tr>
<td></td>
<td>- e-Negotiation</td>
</tr>
<tr>
<td>Customs</td>
<td></td>
</tr>
<tr>
<td>- Customs clearance</td>
<td></td>
</tr>
</tbody>
</table>
The new uTradeHub Portal

- **Introduce of uTrade**
  - Ubiquitous Trade is a single portal site covering trade services comprehensively.

- **Exports**
  - What are Export-related Affairs?

- **Imports**
  - What are import Service systems?

- **New uTrade Services**
  - **E-B/L**
    - Expose Contents of e-B/L.
  - **E-Nego**
    - Expose Contents of e-Nego

- **uTrade Search System**
  - GET DETAILS

- **About**
  - Customs clearance system

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Ministry of Commerce, Industry and Energy
X, Jeongyong-dong, Gwangjin-gu, Gyeonggi-do, 142-721 TEL: 82-3-3110-1299

e-Trade Facilitation Center, Trade Tower 604, Samsung-dong, Gangnam-gu, Seoul, 135-729, Republic of Korea. TEL: 82-3-6290-5433

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### Functions
- Collects manifest information from airlines/ocean carriers/forwarders
- Consolidates data and submits to the Customs for comprehensive management of all cargoes entering/exiting Korea.

### Benefits
- Reduces cost of managing/distributing documents related to arrival and departure of ships, loading/unloading of cargo
- Increases effectiveness/correctness of cargo-related information
**Featured Service : e-DO**

- **Functions**
  - provides convenient and timely ways for traders to pick-up import cargo without full set of shipping documents required for the pick-up of the cargo

- **Benefits**
  - Saves cost by electronic procedure of application/issuance/notification of LG and DO
  - Convenient authentication of originality of LG and DO by way of electronic password methods, thus streamlining offline procedures
  - Increases effectiveness/correctness of cargo related information
### Featured Service: e-LC Service

#### L/C work process before e-L/C

1. Advising bank
2. EDI (Electronic Data Interchange)
3. Paper
4. Exporter
5. Printed on Paper
6. Negotiating bank

**Notification**

**Negotiation**

#### L/C work process after e-L/C

1. Advising bank
2. Internet
3. Notification
4. Exporter
5. Negotiation
6. Negotiating bank

**•** e-L/C information saved in Trade Document Repository (TDR) and shared by banks

**•** All processes (notice, transfer & negotiation) are electronically handled and recorded

**•** As the negotiation result is shared by all banks, no risk of fraudulence or loss of L/Cs
## Featured Service: e-Nego Service

### TO-BE

<table>
<thead>
<tr>
<th>Traders</th>
<th>LogIn</th>
<th>Receive result</th>
</tr>
</thead>
<tbody>
<tr>
<td>uTH</td>
<td>e-Neog Application</td>
<td>Nego Docs Submission</td>
</tr>
<tr>
<td>T/R</td>
<td>Record details</td>
<td>Receive Nego result</td>
</tr>
<tr>
<td>KFTC</td>
<td>e-Nego Reservation</td>
<td>Adjust e-L/C balance</td>
</tr>
<tr>
<td>Banks</td>
<td>Check docs &amp; payment</td>
<td>Receive result</td>
</tr>
</tbody>
</table>

- **SMS**
- **Original e-Docs Transmission**
- **Covering Letter**
- **Electronic Delivery of e-Documents via FileAct**

**Online**
Featured Service: e-Nego Service

Korea-China-Japan Global e-Trade Service Pilot Project Group

- Participating Members: KITA, KEB, SWIFT, CIECC, CCB, BTMU
- Inviting traders/shipping lines/banks