Integrating Supply Chain with Paperless Trade: Challenges and Opportunities

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1. Introduction

Three flows in international supply chain:

- Goods Flow
- Information Flow
- Financial Flow
2. Paperless trade and efficiency of international supply chain

- Paperless trade

  - Paperless trade is conducting trade transactions on the basis of electronic exchange of trade related data and documents, in contrast to conventional way of exchanging trade information using paper documents.

  - Any information systems that are used for completing trade transactions are called paperless trade systems, whether their application is for Business-To-Business (B2B), Business-To-Government (B2G) or Government-To-Government (G2G).
2. Paperless trade and efficiency of international supply chain

**Economic gains from Paperless Trade**

- After introducing the SW in Singapore, the time to process trade documents was reduced from 4 days to 15 minutes.

- Thailand has implemented a number of trade facilitation measures such as procedural reforms and customs modernization as groundwork for SW development. These measures have eliminated redundant processes and reduced the number of days for export from 24 days (in 2006) to 14 days (in 2009).

- In Hong Kong, China annual savings from the automated information transaction system are estimated at HK$1.3 billion.

- The total savings for the business community from the use of the uTradeHub, which provides an automated information transaction system in the Republic of Korea, estimate to be around USD 1.82 billion.
### National, Bilateral and Subregional Paperless Trade Initiatives

<table>
<thead>
<tr>
<th>Type</th>
<th>Countries/Economies/Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td></td>
</tr>
<tr>
<td>Single Window (in Operation)</td>
<td>Azerbaijan, Japan, Indonesia, Malaysia, Philippines, Republic of Korea, Singapore, Thailand</td>
</tr>
<tr>
<td>Single Window (under Development)</td>
<td>All other ASEAN countries, Kazakhstan, Kyrgyz Republic, Mongolia, Turkey, Tajikistan, Uzbekistan, Russian Federation, India</td>
</tr>
<tr>
<td>Other Paperless Trade Systems</td>
<td>- India’s Indian Customs EDI System (ICES)</td>
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<td></td>
<td>- China’s e-Ports</td>
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<td></td>
<td>- Digital Trade and Transport Network (DTTN) of Hong Kong, China</td>
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<td></td>
<td>- Pakistan’s Web-Based One Customs (WeBOC)</td>
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<tr>
<td>Bilateral Initiatives</td>
<td>- Electronic Certificate of Origin between Republic of Korea and Taiwan Province of China</td>
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<tr>
<td></td>
<td>- Electronic Exchange of Preferential Certificate of Origin among ASEAN members</td>
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<tr>
<td></td>
<td>- Electronic Sanitary and Phyto-Sanitary (e-SPS) exchange between Australia and New Zealand</td>
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<tr>
<td>Subregional Initiatives</td>
<td>- ASEAN Single Window</td>
</tr>
<tr>
<td></td>
<td>- Pan Asian e-Commerce Alliance (PAA)</td>
</tr>
</tbody>
</table>
3. Review of Current Status

- Engagement in Cross-border Paperless Trade Documents or Data Exchange

- Countries involved in cross-border paperless trade documents or data exchange
- Countries not involved in cross-border paperless trade documents or data exchange
## 3. Review of Current Status

### Trade Agreement with Paperless Trade Provision

<table>
<thead>
<tr>
<th>FTA</th>
<th>Nature of Commitment</th>
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<tbody>
<tr>
<td>ASEAN-Australia-New Zealand FTA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>Australia-Chile FTA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>Australia-Thailand FTA</td>
<td>Best Endeavour + Some Binding</td>
</tr>
<tr>
<td>Australia – US FTA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>China – Peru FTA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>India – Singapore CECA</td>
<td>Some Binding</td>
</tr>
<tr>
<td>Japan – Philippines EPA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>Japan – Singapore New Age Economic Partnership</td>
<td>Some Binding</td>
</tr>
<tr>
<td>Japan – Switzerland FTA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>Japan – Thailand EPA</td>
<td>Some Binding + Best Endeavour</td>
</tr>
<tr>
<td>Republic of Korea – Peru FTA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>Republic of Korea – Singapore FTA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>New Zealand – China FTA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>New Zealand – Hong Kong Closer EPA</td>
<td>Best Endeavour</td>
</tr>
<tr>
<td>New Zealand – Singapore Closer EPA</td>
<td>Binding</td>
</tr>
<tr>
<td>New Zealand – Thailand Closer EPA</td>
<td>Best Endeavour + Binding</td>
</tr>
<tr>
<td>Trans-Pacific SEP (Brunei, New Zealand, Chile Singapore)</td>
<td>Best Endeavour</td>
</tr>
</tbody>
</table>
4. Issues and Challenges

- Five main challenges to overcome

- Common International Standards
- Harmonization of Different Legal Framework
- Capacity Gaps among the Parties
- Cooperation between Public and Private Sectors
- Lack of Coordination Mechanism
5-1. Pan Asian e-Commerce Alliance

- PAA was established to enable secure and reliable transmission of trade and logistics data and documents. PAA members are Paperless Trade Service Providers, authorized by respective governments for electronic trade declaration and permits, and providing B2B and B2G local and cross border electronic messaging services on supply chain, logistics and financial transactions.

1. China : CIECC
2. Hongkong : Trade Link
3. Indonesia : PT EDI Indonesia
4. Japan : NACCS
5. Korea : KTNET
6. Macau : TEDMEV
7. Malaysia : DagangNet
8. Philippines : InterCommerce
9. Singapore : CrimsonLogic
10. Chinese Taipei : Trade Van
11. Thailand : CAT Telecoms
5-1. Pan Asian e-Commerce Alliance

PKI Mutual Recognition

Country A

CPS-A

End User A

Certification Authority A

Subscriber Agreement-A

Service Provider A

Secure Cross Border Transaction Services

Interconnection Agreement, SLA

Country B

CPS-B

End User B

Certification Authority B

Subscriber Agreement-B

Service Provider B

CA Service

PAA Policy Authority

Recognition Agreement

Club Agreement

Secure Cross Border Transaction Services

Interconnection Agreement, SLA
5-1. Pan Asian e-Commerce Alliance

■ PAA Cross Border Scenario

Exporting FA

AWB Information, INV, PL, Export Declaration

Customs System

Declar. System

Cargo Visibility

PAA Member (A)

AWB, INV, PL and Declaration Information

PAA Member (B)

AWB Information, INV, PL, Draft Import Declaration

Customs Clearance (Status)

Manifest, Import Declaration Submission

PAA Secure Doc Exchange:
• Inter-connection Agreement
• Legal Framework

Exporting Customs

Importing FA Customs Broker

Importing Customs

PAA.net
Pan Asian e-commerce Alliance
5.2 Korea-Chinese Taipei e-C/O project

- E-C/O: An APEC ECSG Pathfinder Project
- Dec. 2004, pre-meeting between MOCIE (public sector), KITA and KTNET (private sector) of Korea and BOFT (public sector) and Trade-Van (private sector) of Chinese Taipei.
  - Both sides reached an agreement to implement the cross border ECO exchange project using PAA framework.
- April 2005 and May 2006, the first and second official bilateral meeting between Korea and Chinese Taipei
  - Project scope and technical specification were agreed
- Nov 2008, the third official bilateral meeting between Korea and Chinese Taipei
  - Signing of MOU for cross border ECO service
Paper CO Scenario [Korea → Chinese Taipei]

Exporter

1. CO APP
2. ECO (for print)
3. CO for Seal and Certification

KCCI

KTNET

1. CO APPORG
2. ECO CERTIF

Customs

4. Send Inv, P/L, Paper CO to Importer
5. Pass CO to Customs Broker
6. Import Declaration
7. Declaration
8. Supplement Paper CO

Trade-Van

National Treasury Agency

Verify authenticity of paper CO

Customs Broker

Importer

Send CO to Importer

Chinese Taipei Mission office in Korea

Korea

Chinese Taipei
ECO Scenario [Korea ➤ Chinese Taipei]

Exporter

KTNET Repository

KCCI

① CO APP
② ECO (for view)
③ Inv, P/L (specify ECO Number)

Importer

Trade-Var Repository

ECO Enquiry on KCCI Website

With ID and Password

ECO confirmed by importer

Sign to confirm ECO

Assign Customs Broker

Generate Import Declaration Data

Customs Broker

ECO CERTIF

① CO APPORG
② ECO (for view)
③ Inv, P/L, ECO

Customs

④ Import Declaration

⑤ Imports Declaration

⑥ Generate Import Declaration Data
5.2 Korea-Chinese Taipei e-C/O project

- Benefit to traders

  **Exporter**
  - Save time and costs (*courier express US$23*) in applying and sending over paper CO
  - No need to get a stamp/seal on the CO from Taipei Mission Office in Korea → save tremendous time (*in average 3 days*) and costs (*US$17 per stamp, transportation cost US$20-40*)
  - Transmit cross border documents in a secure online environment
  - Better service to their buyers

  **Importer**
  - Speed up customs clearance process
  - Expedite cargo pick up → saving warehouse cost
  - Guarantee of authentic CO
6. Questions for Discussion

- The following are five questions corresponding to each of five challenges to stimulate in-depth discussions and possible identification of enablers during the Forum:

6.1: There are different common international standards available. Is there any particular standard that fits better than other? If so, **how can one identify such common international standards?** And what action could be taken if the such standard does not fit to the requirements?

6.2 The paper mentions harmonization of national legal framework with international legal instruments. Are there enough legal instruments available for harmonizing every aspects of national legal framework? If not, **what aspects of legal instruments are in need of further development by international community?**
6. Questions for Discussion

6.3 As witnessed in the process of WTO Trade Facilitation Negotiations, capacity gaps of developing countries can be a critical issue in implementing trade facilitation measures. It would be more so for implementation of paperless trade. **What would be effective capacity building mechanisms that developing countries can move towards paperless trade practice?**

6.4 Public sectors and private sectors have fundamentally different objectives in dealing with trade transactions. The former has a mandate to ensure regulatory compliance, while the latter wants more facilitation of trade to maximize their profits. There are increasing number of trade facilitation initiatives to help private sectors from public sector perspective. Are such programmes are really valuable from private sector perspective? If not, **what would be other possible measures that can be introduced through public-private partnership in international trade, in particular in relation to cross-border paperless trade?**

6.5 Intergovernmental facilitation of cross-border paperless trade can be made at bilateral, subregional and regional level. Does such facilitation at certain level can be more effective than others? **What are the pros and cons of intergovernmental facilitation at each level? What would be most feasible or practical format or mechanism?**
7. Recommendations

- Countries need to make an effort to integrate common international standards whenever it develops new paperless trade systems or upgrade existing systems and participate to standard activities.
- Countries need to base or align its legal framework with international model laws and conventions as much as possible.
- More rigorous capacity building program at regional level is needed with reciprocal capacity building activities and support.
- Dynamic platform where both public and private sectors can openly share their views and concerns and communicate readily.
- Regional intergovernmental bodies with wide membership scope and proper mandate need to show leadership by initiating regional arrangement such as regional agreement.