

## **Analysis of cross-border electronic certificates of origin between the Republic of Korea and Taiwan Province of China**

### **A. Overview**

With the introduction of e-commerce to the global supply chain management, there have been various attempts to digitalize the cross-border transactions by utilizing the latest information and communications technology through a private contract-based legal framework. In early 2000, such initiatives were led by paperless trade forerunners such as Bolero, Trade Card and Pan Asian e-Commerce Alliance. However, these private sector-oriented initiatives faced limitations due to the nature of international trade. Unlike the domestic process, international trade requires more administrative processing at border-crossing points and the private contract-based legal framework for paperless trade lost its validity when faced with government regulations and laws. To address the issue, regional and international bodies have recommended public and private dialogue, and a partnership programme, and have initiated a number of pilot projects.

In this case study, a project between Republic of Korea and Taiwan Province of China on the exchange of electronic Certificates of Origin, which was undertaken as part of the APEC Pathfinder programme for cross-border paperless trade, is analysed. This analysis illustrates how a partnership between the public and private sectors in cross-border paperless trade can address the issue of cross-border mutual recognition of electronic documents and the expected benefits for traders from the service. At the same time, the analysis discusses the limits of the project as well as what issues should be further addressed beyond its achievements.

### **1. Certificate of Origin**

A Certificate of Origin is often abbreviated to CO or COO. It is completed by exporters or their agents and certified by an issuing body attesting that the goods in a particular export shipment have been wholly produced, manufactured or processed in a particular country or a region. The term “origin” does not refer to the country where the goods were shipped from but to the country where they were manufactured. In the event that the products were manufactured in two or more countries, the origin is obtained in the country where the last substantial economically-justified working or processing is carried out.

The general rule of origin (RoO) is that if more than 50 per cent of the cost of producing the goods originates from one country, the “national content” is more than 50 per cent, then that country is acceptable as the country of origin. However, depending on

the usage of a CO, different rules of origin methodology are applicable. Determining the origin of a product is important because it is a key basis for applying tariffs and other important criteria.

The first CO was issued by the Marseille Province Chamber of Commerce at the end of the nineteenth century. The issuing of Certificates of Origin and the associated certification of other export documents was first regularized in 1923. This came about under the provisions of an International Convention related to the Simplification of Customs Formalities, held in Geneva<sup>1</sup> and reinforced with the updated Kyoto Convention.<sup>2</sup> Under these Conventions, signatory Governments were able to allow organizations “which possess the necessary authority and offer the necessary guarantees” to the State to issue certificates of origin. Thus due to the widespread network of the Chambers of Commerce in most countries, they were allowed to issue certificates of origin by Governments.

In 1968, at the [Uruguay Round](#), an agreement was reached on RoO, which led to more transparent regulations and practices regarding RoO. In 1999, the Revised Kyoto Convention added an annex on the “Simplification and Harmonization of Customs Procedures” to further facilitate the transfer of legal documents in international trade. Currently, there are more than 350 FTAs with provisions on preferential treatment; this shows an expansion of the issuance of preferential certificates of origin.

(a) *Non-preferential Certificates of Origin*

Non-preferential (or general) certificates of origin are the most common type of CO. As part of the WTO Uruguay Round of Multilateral Trade Negotiations, it was agreed by WTO members to harmonize the non-preferential RoO. For that purpose the Agreement on Rules of Origin of Marrakech (1994) established a work programme (HWP). In the negotiations under the HWP for each subheading in the Harmonized System of the World Customs Organization (WCO), a rule has to be established that reflects the last substantial transformation carried out on the non-originating materials.

If this rule is fulfilled the product obtained will acquire non-preferential origin. If the rule is not fulfilled, general residual rules or residual rules per Chapter or Heading allow the origin of a product to be determined. These rules can be found on the WTO website under Integrated Negotiation Text documents. As soon as there is consensus among all members about a rule it will be transferred to the status of “endorsed”. For those subheadings where no consensus on a rule is reached, the different positions of members are reflected in the relevant documents.<sup>3</sup> Non-preferential CO ensures that goods do not benefit from any preferential treatment and do not emanate from a particular bilateral or multilateral FTA. Chambers that are authorized to issue CO are most frequently authorized to issue non-preferential certificates of origin.

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<sup>1</sup> International Certificate of Origin Guidelines, International Chamber of Commerce.

<sup>2</sup> International Convention on the Simplification and Harmonization of Customs Procedures, World Customs Organization.

<sup>3</sup> Rules of Origin, European Commission.

(b) *Preferential Certificate of Origin*

Preferential origin is conferred on goods from particular countries that have fulfilled certain criteria. In order to obtain preferential origin, those criteria generally require that the goods be wholly obtained or have undergone specifically determined working or processing in a country.

Preferential origin confers certain tariff benefits (entry at a reduced or zero rate of duty) on goods traded between countries that have agreed to such an arrangement or where one side has granted it autonomously. In order to have preferential origin, goods must fulfill the relevant conditions laid down in the origin protocol to the agreement of whichever country is concerned, or in the origin rules of the autonomous arrangements. In effect, it means that goods must either (a) be manufactured from raw materials or components that have been grown or produced in the beneficiary country or, should that not be the case, (b) at least have undergone a certain amount of working or processing in the beneficiary country. Such goods are considered to be “originating”.

In all cases, there is a list of the working or processing that each product manufactured from non-originating materials or components must undergo in order to obtain originating status. These rules are often referred to as “the list rules”. They set out the least amount of working or processing required for non-originating materials in order for the resulting goods to obtain originating status. Further working or processing going beyond that is acceptable and will not affect the origin thus obtained.<sup>4</sup> Currently, there are five types of Preferential Certificates of Origin:

- (a) Generalized System of Preferences (GSP);
- (b) Common Effective Preferential Tariff (CEPT);
- (c) Commonwealth Preference Certificate (CPC);
- (d) Global System of Trade Preferences (GSTP);
- (e) Free Trade Agreement (FTA).

The definition of “Country of Origin” and “Preferential Origin” are different. The European Union, for example, generally determines the (non-preferential) origin country by the location where the last major manufacturing stage took place in the production process (in legal terms: “last substantial transformation”). Whether a product has preferential origin depends on the rules of any particular trade agreement being applied; these rules can be value-based or tariff shift-based. The trade agreement rules are commonly called “Origin Protocols”. The Origin Protocols of any given FTA will determine a rule for each manufactured product, based on its Harmonized Tariff Schedule code.

Each and every rule will provide several options for calculating whether or not the product has preferential origin. Each rule is also accompanied by an exclusion rule that defines in which cases the product cannot obtain preferential status at all. In several

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<sup>4</sup> Rules of Origin, European Commission.

countries, customs authorities are delegating the right to issue preferential certificates of origin on their behalf to Chambers of Commerce. These countries include Australia, New Zealand, Sweden and the United Kingdom of Great Britain and Northern Ireland.

(c) *Issuing bodies*

The certificate of origin is formed by an exporter and validated by a Chamber of Commerce in the case of certain destination countries (mostly Middle Eastern and other developing countries), also by a Consulate.

Despite the vast chain of Chambers present around the world, not all CO-issuing practices are harmonized or even alike. Actually, laws and requirements related to this practice may vary within a country, depending on where the Chamber derives its authority. In this regard, the International Chamber of Commerce (ICC) has established International Certificate of Origin Guidelines to standardize procedures around the world. This publication is available in Arabic, Chinese, English, French, Russian and Spanish. Based on these guidelines, Chambers are collaborating in creating a global CO chain to reinforce their integrity and credibility as trusted competent third parties in CO issuance. Chambers that have signed up for this chain have recognized that they are mutually responsible and globally interconnected with their peers, bringing reassurance to businesses, banks and customs administrations that all CO are issued according to internationally-accepted best practices.

However, with the increasing number of trade agreements, customs administrations have recently started to provide preferential CO services, as many such agreements assign the role of verification of origin to customs administration.

## **2. The e-CO exchange project between Republic of Korea and Taiwan Province of China**

(a) *Background*

Together with other cross-border trade documents such as Bills of Lading, and Sanitary and Phytosanitary (SPS) Certificates, CO have been identified as a key document to be harmonized and circulated through online systems for seamless paperless trade transactions. In addition, in order to solve the issues at the international level, various regional or international cooperation frameworks have been prepared by international bodies such as the United Nations, APEC and WCO. For example, the World Chambers Federation established a Task Force to develop International Certificate of Origin Guidelines that include the adoption of e-CO.<sup>5</sup>

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<sup>5</sup>Available at [www.iccwbo.org/chamber-services/trade-facilitation/certificates-of-origin/co-guidelines/](http://www.iccwbo.org/chamber-services/trade-facilitation/certificates-of-origin/co-guidelines/).

Another important approach is the APEC Paperless Trading Subgroup (PTS) under the e-Commerce Steering Group, which has initiated a number of Pathfinder projects as part of the APEC Strategies and Actions towards a Cross-Border Paperless Trading Environment. The Pathfinder projects identified by APEC PTS are: (a) e-Cert SPS (Australia/New Zealand); (b) e- CO (Republic of Korea-Taiwan Province of China); and (c) e-Negotiation (Republic of Korea).

Unlike an e-SPS, whose issuance and final recipient are covered by the same type of inspection agencies, e-CO has a difficult challenge; it has different stakeholders at its issuing and receiving ends, which creates a higher barrier in its implementation across borders.

In the Republic of Korea, KTNET has been providing an EDI-based CO service with the Korea Chamber of Commerce and Industry since 2000. To facilitate the use of electronic trade documents, the Ministry of Trade, Industry and Energy has enacted an “Electronic Trade Facilitation Act” that mandates the use of a National Paperless Trade Platform for the issuance and distribution of certain electronic trade documents including CO. However, as the CO needs to be submitted to the customs authorities of the importing partners’ economies, the CO still has to be delivered in paper form. To make matters worse, some overseas customs authorities require a consular certified (or authenticated) CO that is being stamped and registered at the embassy in the exporting country; this requirement has been a setback in establishing a cross-border e-CO exchange system.

In 2004, KTNET proposed a non-preferential e-CO project to Trade-Van of Taiwan Province of China. However, it was impossible to implement the project without the participation of both Governments. By utilizing the APEC PTS events, they were able to initiate a preliminary Private-Public Partnership (PPP) Meeting, and the Governments of both economies came to an agreement on holding an annual bilateral meeting for paperless trade with the private sector. In 2005, the Republic of Korea held its first PPP meeting with Taiwan Province of China and proposed e-CO project. Subsequently, a series of Republic of Korea and Taiwan Province of China Private-Public Partnership Meetings on paperless trade were held. Regular participants include the Ministry of Knowledge Economy (now called the Ministry of Trade, Industry and Energy), the Korea Chamber of Commerce and Industry (KCCI) and KTNET from Republic of Korea, and the Bureau of Foreign Trade, the customs authorities and Trade-Van from Taiwan Province of China.

*(b) Republic of Korea -Taiwan Province of China e-CO exchange process*

Before the introduction of the cross-border e-CO service, a CO had to be issued in paper form with the signature of the exporter and a Chamber of Commerce validation stamp. Also, it is quite common to find forged CO at customs clearance. In order to prevent such forgeries on the importers’ side, in some importing countries customs ask for certification on the printed Certificate of Origin by a consular office in the exporting country.

In the case of exports from the Republic of Korea (ROK) to Taiwan Province of China, the customs authorities in the latter require a CO for import clearance of a limited number of items. Such items include agricultural products, fishery products and alcoholic beverages. In the case of alcoholic beverages, importers also have to submit a CO to the Taiwan Revenue for alcoholic beverage taxation.

Previously, the typical CO issuing process in the Republic of Korea (figure 1) for goods to be exported to Taiwan Province of China involved the following steps:

(a) Submission by an exporter from the Republic of Korea of an application for a Certificate of Origin together with documentary proof, such as an invoice and packing list, to the regional office of the Korea Chamber of Commerce and Industry;

(b) On receipt of the application, staff at the Chamber of Commerce and Industry accessed the customs system to view the customs clearance records with clearance reference numbers.

(c) The consistency of the information between application and clearance information was checked by the Chamber staff. They also checked the internal watch-list database and compared the signature on the application with registered one;

(d) Once the assessment was complete, KCCI stamps the Certificate of Origin;

(e) Many exporters of agricultural products from the Republic of Korea are located in the central province of the Republic of Korea. As a result, they had to travel to the Taipei Mission in the Republic of Korea either in Seoul or Busan (there are only two Mission offices in the Republic of Korea) for certification of the CO the next day, as the admission time is in the morning only. The certification fee is about US\$ 25 per document;

(f) The officer at the Taipei Mission in the Republic of Korea stamped the CO as proof of certification and registered it in the record book;

(g) The exporter then sent the CO together with other shipping documents, such as the commercial invoice, packing list, SPS Certificate and Bill of Lading, to the importer by express mail service.

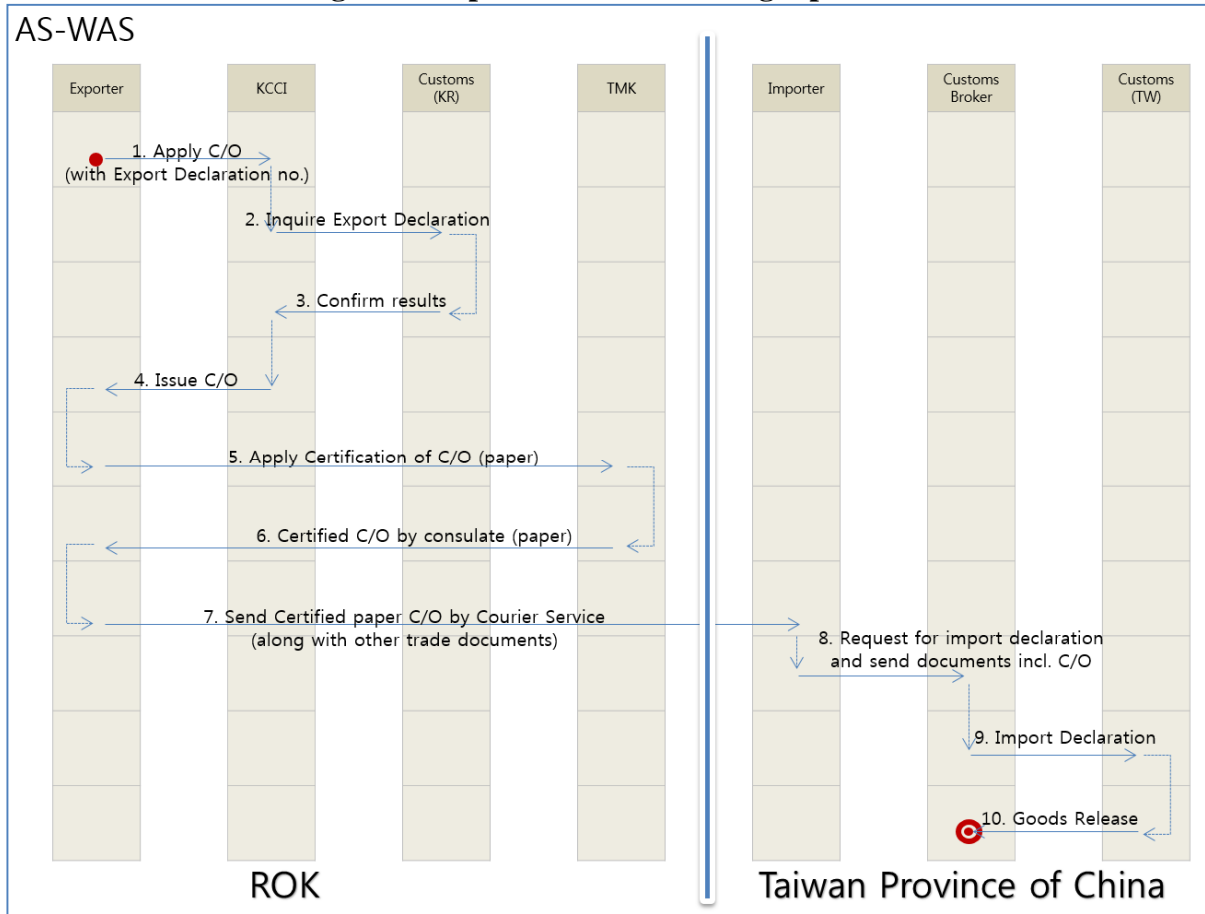
In Taiwan Province of China, the import procedure was as follows:

(a) On receipt of the shipping documents, the importer asked a customs broker to submit the customs import declaration on behalf of the importer;

(b) The customs broker made a declaration out of shipping documents and submitted it with the shipping documents including the CO;

(c) The customs authorities reviewed the declaration and cleared the goods for import.

**Annex figure 3. Paper Certificate of Origin process**



According to Taiwan Province of China customs authorities, a consular certification (or authentication) on a Certificate of Origin from the Republic of Korea is required as many mainland Chinese agricultural products are being declared as products from the Republic of Korea by using forged CO. However, as the consular certification process takes days and is costly, exporters from the Republic of Korea requested unsuccessfully that this requirement be abolished. In addition, when an error was identified (up to 7 per cent of all import clearance cases) by customs in Taiwan Province of China on the CO, the importer had to return the original Certificate of Origin to the exporter for re-issuance, which required several days and caused losses in the value of the imported agricultural products through deterioration in the warehouse.

For that reason, there was a strong call to address this challenge. When the Governments of the Republic of Korea and Taiwan Province of China agreed to implement the exchange of e-CO, this initiative was welcomed by agricultural products exporters and importers. The detailed exchange process of e-CO (annex figure 2) is as follows:

(a) The exporter from the Republic of Korea uses the uTradeHub (uTH) of KTNET, the web-based Republic of Korea Single Window for paperless trade, to complete the CO application form, and sends it KCCI;

(b) KTNET sends the application to KCCI;

(c) Once the application is received, staff at the Chamber of Commerce and Industry accesses the customs system to view the customs clearance records and clearance reference number.

(d) The staff check the consistency of the application and clearance information as well as the internal watch-list database.

(e) KCCI, as the CO issuing/verifying authority, approves the e-CO application using its own legacy system and sends a confirmation to the exporter through KTNET;

(f) The exporter can access the e-CO database at uTH with inquiries according to the e-CO code issued and can download the e-CO message to the legacy system. However, exporters are not allowed to modify the e-CO issued by KCCI;

(g) The exporter sends the approved e-CO to the importer via the uTH of KTNET, which is interconnected with Trade-Van's online e-CO service. Before the e-CO is delivered to Trade-Van, KTNET digitally signs the approved e-CO on behalf of KCCI and the exporter under the PKI mutual recognition framework of Pan Asian e-Commerce Alliance. It is no longer necessary for exporters to take the paper CO to the Taipei Mission office in Seoul or Busan for certification, as the digital signature technology provides more than sufficient assurance to Taiwan Province of China customs authorities on the origin, authenticity and integrity of the e-CO. In the meantime, the goods are shipped to Taiwan Province of China, which takes about three days on average.

In Taiwan Province of China:

(a) The e-CO system of Trade-Van sends the importer an e-mail notification that the e-CO has been received from the exporter;

(b) The importer reviews the e-CO via the e-CO system of Trade-Van;

(c) The importer assigns a customs broker to arrange the import declaration and provides the broker with the shipping documents;

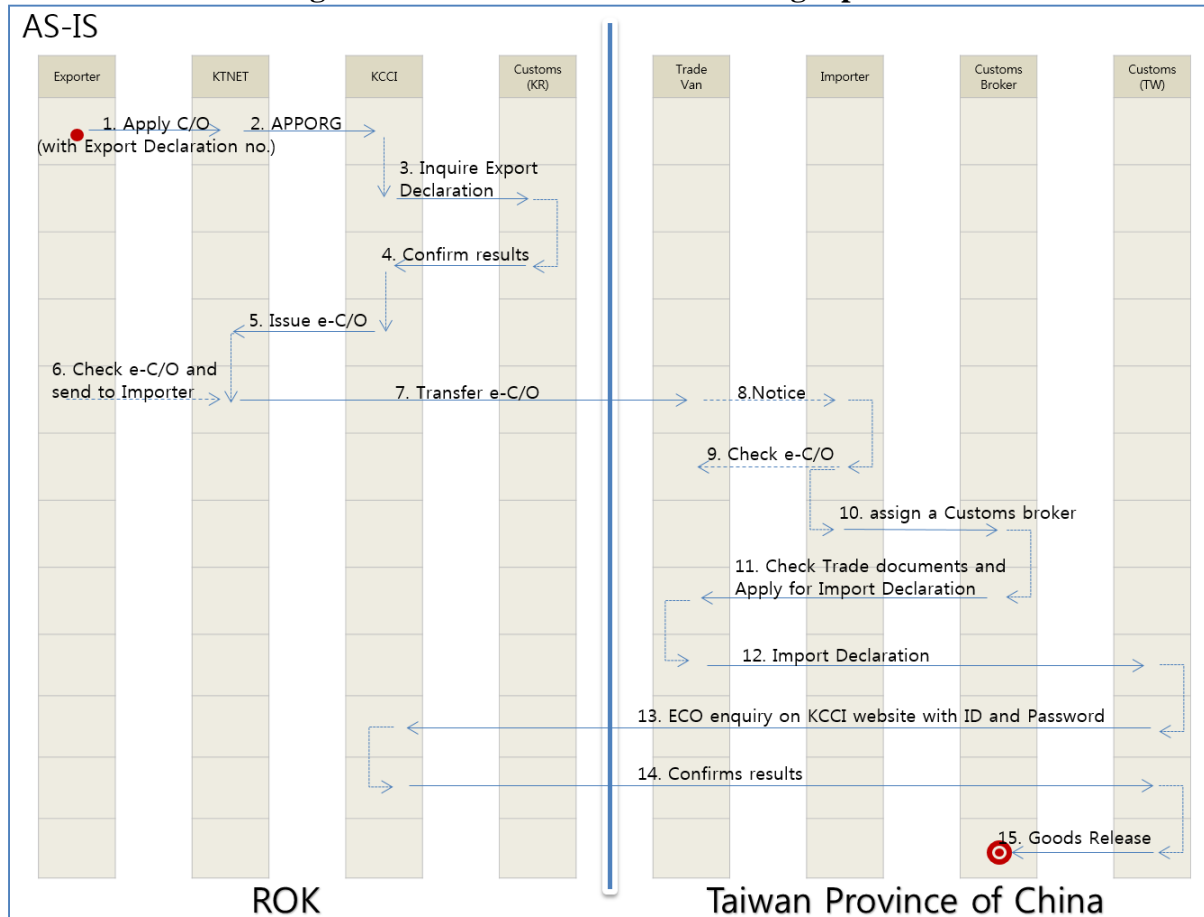
(d) The customs broker reviews the shipping documents and e-CO, and then creates an EDI import declaration;

(e) The customs broker submits the EDI import declaration to customs through Trade-Van's network, quoting the relevant electronic e-CO reference number. The Trade-Van system automatically sends the e-CO together with the import declaration to customs;

(f) The customs officials review the declaration and clear the goods for import.



**Annex figure 2. The e-CO Certificate of Origin process**



If necessary, the customs authorities in Taiwan Province of China can visit the e-CO database website of KCCI. After clearing any inquiries and taxation, customs release the goods. A customs broker or an importer will then arrange to pick up the goods from the terminal or holding area for delivery to the importer’s warehouse or other location.

(c) *Achievements and limitations*

This service has become renowned as the best practice on cross-border paperless trade through APEC. The APEC Case Study of Electronic Certificate of Origin (e-CO) shows that significant tangible benefits, in terms of costs reductions, have been generated, both for importers and exporters, from the application of e-CO between Taiwan Province of China and the Republic of Korea. The key improvements provided by the e-CO service compared to the previous CO process are detailed below.<sup>6</sup>

The savings for the exporter from the Republic of Korea include: (a) time and cost savings through avoiding the step of having the CO authenticated at a Taipei Mission in

<sup>6</sup> e-CO Case Study, APEC, 2011.

the Republic of Korea; and (b) avoiding the cost and delay of sending the paper CO by standard or express mail to the importer or the customs broker of the importer. The total savings for the exporter amount to (a) a time administrative savings of 4 hours and 20 minutes (equivalent to US\$ 74 at US\$ 17 per hour); (b) a direct expenses saving of US\$ 143.50; and (c) a reduction in the processing time of two days on the export side of the process. The total benefit from the above improvements amounts to US\$ 217 per shipment and a two-day reduction in the time spent on processing (CO authentication time).

The savings for the importer/importing customs broker include: (a) time and cost savings from avoiding the need to send the CO to the customs broker; and (b) delivering the CO in person to customs. The total savings for the importer/customs broker amount to: (a) time administrative savings of 7 hours and 15 minutes (equivalent to US\$ 58 at US\$ 8 per hour); (b) direct expenses saving of US\$ 147; and (c) a reduction in processing time by three days on the import side of the process, and time saved from avoiding the need to send the paper CO to Taiwan Province of China.

The total benefit from the above improvements amounts to US\$ 205 per shipment and a time saving of three days (due to the shorter import clearance time). In addition, in the previous process, when an error in the CO was detected by the customs authorities in Taiwan Province of China it had to be reissued, which meant a further delay of eight days, (six days to re-issue the CO and two days for the CO to reach Taiwan Province of China by mail). As the goods would be withheld during this period, the importer lost the opportunity to sell the goods at the optimal price, and might incur interest charges for the additional working capital needed to offset the sales delay.

These losses, amounting to US\$ 3,553 per shipment, are partially offset by the exporter. From one of the interviews with the importers, the importer claimed that the probability of CO errors is about five for every 70 COs. Once an error is identified, the original CO has to be returned to the Republic of Korea for reissuance. As errors are estimated to occur 7 per cent of the time, the pro-rated cost is US\$ 249 per shipment – US\$ 57 to the exporter and US\$ 192 to the importer. CO errors and the monetary losses can be avoided with the new global-level e-CO process. The overall savings from the implementation of the new global-level e-CO process is US\$ 274 for the exporter and US\$ 397 for the importer.

However, despite the success of the cross-border e-CO project, there are limitations as well as important lessons to be observed:

- (a) In the first place, with no international framework for e-CO, the e-CO project utilized the PAA framework. As this is a private standard it prevents the expansion of the service outside of the PAA region;
- (b) The bilateral Public-Private Partnership dialogue helped stakeholders to share their views and concerns, and to understand each other;
- (c) As both economies have a well-established environment for cross-border transactions, a major capacity-building programme was unnecessary. However,

when it comes to the expansion of the e-CO service, the gap between countries should be addressed;

- (d) What took the most time to realize the e-CO exchange was the entry into a bilateral agreement, not the technical specifications. From the beginning of the dialogue between the two economies, it took almost five years to come up with a Memorandum of Understanding. International arrangements such as a regional agreement could have speeded up the process;
- (e) Last, traders need to exchange not only the CO but also other trading documents in electronic forms to enjoy the true benefit of e-CO, as exporters are still sending the other trading documents in paper form. Even if the CO is one of the key documents, without providing all documents in electronic form, and without covering the whole international supply chain with electronic form documentation, the benefits will be limited.

It is inevitable that each country to go for bilateral approaches to realize mutual recognition of cross-border exchange of electronic document and data, given the current absence of an international framework and with existing technical gaps among countries. As proven in many cases, the cross-border exchange of trade-related documents and data can provide huge benefits for the global supply chain. Having a regional or international platform to collectively work on the legal framework for mutual recognition of trade-related documents and data, together with other technical and policy issues of cross-border paperless trade provides a major advantage.