

An Analysis and Suggestion for Chinese Single Window based on Korean Single Window

한국의 싱글 윈도우 사례를 통해서 본 중국 싱글윈도우의 실태 분석과 제언

Min-Chung Han

Main Author. Lecturer of Business Administration
Department, Raffles Design Institute, China
Donghua University.

Byung-Soo Ahn

Corresponding Author. Associate Professor of
Logistics and Int'l Trade Department, Seoul
Digital University.

Contents

- | | |
|--|---|
| I. Introduction | IV. Challenges and Opportunities: China Single Window |
| II. The definition of Single Window and its importance in Asia | V. Conclusion |
| III. Korean Single Window and China progress on e-Trade | Reference
국문초록 |

Abstract

Single window has become a critical point of trade facilitation. While Korea has set up the first web based single window 'uTradeHub', China has also been working on a seamless single window. As strong governmental support, advanced technology, leading agency and legal framework are success factors for single window, China already has solid foundation for this. For the leading agency, this research suggests the CIECC as a leading agency with linkage to E-Port service for seamless trade service for companies. We expect that Chinese single window will materialize in near future by a leading agency with the help of strong governmental support.

Key Words : Single window, uTradeHub, E-port system, Shanghai Easipass, CIECC

I . Introduction

In the era of Information Technology, everything that we could think of is going on online. Majority of office workers start their day with checking E-mails in their mail box. Electronic Commerce is part of daily life for many people worldwide. International Goods Trading is not exceptional from this trend.

Each step of international trading- from finding a future buyer and/or a seller to exchange transport documents and to settle the payment- is partially or wholly executed on the internet. Electronic Trade(e-Trade) or Paperless Trade is considered as the biggest part of the Trade Facilitation, if not all.

Single window is considered as a completion of the electronic trading process. The main reason why trade related entities are eager to implement electronic trade is that e-trade or paperless trade help cut the cost and reduce the time to process all trade procedures. Single window is the starting point of the trade facilitation and also the destination to enable paperless trade literally.

As of 2011, most Asian countries¹⁾ are involved in at least one single window project. Republic of Korea, one of e-trade frontiers²⁾, has established the national single window called 'uTradeHub' in May 2007. On the website exporters and importers can implement customs clearance, marketing, finance and logistics. More over, uTradeHub which is driven by Ministry of Knowledge Economy connected to Korea online E-procurement System which is led by Public Procurement Service through single sign on³⁾ in late 2009. Therefore, small procurement companies can handle trade related issues on the E-procurement System without re-entry ID or Password by single sign on.

The world's second largest economy and also South Korea's biggest trading partner- China is on the way to set up a national single window. Since the country is huge, currently the nation

1) 10 Asean Countries(Brunei, Cambodia, Indonesia, Laos, Myanmar, Singapore, Malaysia, Thailand, Vietnam, Philippines) agreed to develop and implement their National Single Windows by 2012. Non-Asean Asian countries such as South Korea, China, Hong Kong-China, Chinese Taiwan, Mongolia have established or have been working on its own national single window.

2) Singapore, Hong Kong-China, South Korea, Thailand and Malaysia currently have national single window respectively.

3) Single sign on and one stop service are similar concepts to single window with slight difference. One stop service means that users can get all related service from one provider on behalf of other providers. Single sign on allows an user log in only one time and move on to another site without submitting ID and/or PW again.

Byung-Soo, Ahn-Min-Chung, Han, "A study on the Requisites of Single Window for International Trade in Korea", *E-business research* Vol. 7 No.5, December 2006, p.3.

approaches to single window as a regional single window. Nation-wide E-port project was implemented in 2001. At the same time, municipal governments set up their own customs system and single windows. China International Electronic Commerce Center (CIECC), an government agency operating under the Ministry of Commerce of the People's Republic of China, has developed various electronic commerce platforms for different local governments. For example, CIECC launched Jiaying International E-Commerce Service Platform with support of Commerce Department of Zhejiang Province and Jiaying Municipal Government in September 2009.⁴⁾ However, the blue print of Chinese model of 'single window' has not been formed yet.

Considering most Asian countries have high level of dependence on international trade, it is not surprising to see single window projects mostly in Asia. However, current national single windows stay in the domestic transactions which do not allow to have 'paperless' trade. Current single windows are 'paperless' only in the country.

While many countries have launched their own single window, it may seem little late to discuss 'single windows' concept and importance. However, China, as the biggest trading partner of Korea and also the second largest economy in the world, its single window would affect trading partner countries. Especially when the single window is connected to the other countries the advantages are priceless.

Therefore, this comparative study aims to yield further insights as well as both countries' goals and suggests success factors of national single window. Moreover, the study aims to suggest some requirements and needs to fulfill seamless e-trade between Korea and China through its own single windows.

In this research however, further discussion of Internet and information technologies would be limited though there is no different view on the importance of these modern technologies in single window. Due to fast progress of technologies, current technical problems would not be the problems in near future. Also limited technology related knowledge of authors would not make the discussion as a subject of this study. Therefore, this study will be focused on the business models and legal approach of single window.

The first chapter introduces the general single window environment and the main goal of this research.

4) http://en.ec.com.cn/article/aboutus/aboutnews/200909/922123_1.html 26 Feb.. 2011.

In the second chapter we will review the different definitions of single window. Depends on the main body, definitions are slightly different. Also we will see why single window is more significant in Asia.

In chapter three, we are going to examine Korean single window uTradeHub's business model and its performance. Also we're going to see the progress of Chinese single window.

Chapter four, we would like to see the obstacles and challenges of Chinese single window. Also we would foresee the future of Chinese single window and suggest success factors for better cooperations among Asian countries' single window.

Finally the fifth chapter will sum up the research and briefly conclude this study.

This study opts for a philological and legal approach to different customs, legislation issues, common law, and laws related to single window.

II. The definition of Single Window and its importance in Asia

Many international organizations have been working on national or regional single window to facilitate international trade. Therefore, the definitions of single window vary depending on the entities.

Although single window is rather new concept to international trade, all different single window definitions share one common thing that single window is a system to submit electronic data once and to process without additional data submit and/or log in.

1. The definition of single window in Korea and World

The UN Centre for Trade Facilitation and Electronic Business(UN/CEFACT) defines single window as "a facility that allows parties involved in trade and transport to lodge standardized information and documents with a single entry point to fulfil all import, export, and transit-related regulatory requirements. If information is electronic⁵⁾, then individual data elements should only be

5) Although UN/CEFACT explained if data is electronic, the data should be submitted once, UN/CEFACT also defined single window as a facility that 'trade-related information and/or documents need only be submitted once at a single entry point' without limit on electronic data only.

submitted once.”⁶⁾

The World Customs Organization(WCO) defines single window same as UN/CEFACT. WCO adds that “the single window is clearly a trade facilitative measure. It permits the trader or transporter to submit all the data needed for determining admissibility of the goods in a standardized format only once to the authorities involved in border controls and at a single portal.”⁷⁾

The Association of South East Asian Nations(ASEAN) has been working to establish and to implement the ASEAN Single Window. ASEAN defines single window as “a system which enables a single submission of data and information; a single and synchronous processing of data and information and a single decision-making for customs release and clearance. A single decision-making shall be uniformly interpreted as a single point of decision for the release of cargoes by the Customs on the basis of decisions, if required, taken by line ministries and agencies and communicated in a timely manner to the Customs.”⁸⁾

UK’s trade facilitation body Simplification of International Trade Procedure(SITPRO) defines the International Trade Single Window (ITSW)⁹⁾ as “a platform to allow traders to submit international trade- import, export or transit- data required by government departments or agencies once only through a single electronic interface thereby fulfilling all the regulatory requirements in respect of each transaction.”¹⁰⁾ Unlike UN/CEFACT which implied non-electronic information could be submitted to a single entry therefore the single window could be offline interface, SITPRO clearly stated that a single window is an electronic interface which implies that single window cannot be offline single counter.¹¹⁾

The world business organization International Chamber of Commerce(ICC) mentioned that ICC welcomes the inclusion of commitments for achieving single window capabilities for managing the

6) UN/CEFACT, “Recommendation No33-Recommendation & Guidelines on Establishing a Single Window”, 2005, p. 6.

7) The Single Window Concept The World Customs Organization’s Perspective.

<http://www.wcoomd.org/files/1.%20Public%20files/PDFandDocuments/Procedures%20and%20Facilitation/Single%20Window%20Concept.pdf>

8) Agreement to Establish and Implement the ASEAN Single Window, Kuala Lumpur, 2005. <http://www.aseansec.org/18005.htm>

9) Generally, it’s known as Single Window in UN/CEFACT and internationally. However, SITPRO use International Trade Single Window instead of Single Window.

10) International Trade Single Window, Version 1.1, 2009.

<http://webarchive.nationalarchives.gov.uk/20100918113753/http://www.sitpro.org.uk/regreview/newitws.pdf>

11) Byung-Soo Ahn·Min-Chung Han, “A comparative study on the single window between Korean and Singapore”, *Journal of Korea trade* Vol. 11 No. 3, November 2007, p.5.

cross-border transaction. Also ICC described single window as “a necessary step toward eventual achievement of the Seamless Integrated Transaction in the specific ICC objectives.”¹²⁾

Korea doesn't have its own definition of single window. However, the national single window uTradeHub hints to guess the definition. uTradeHub introduced itself as ‘a single online window’ which enables “trading companies can use trading process such as marketing, market research, customs clearance, logistics, banking, and negotiations through uTradeHub.”¹³⁾ in the website.

Although each organization has slightly different way of explanation, we would like to define single window in this research as “a single entry system which allows to submit standardized and simplified electronic data and information¹⁴⁾ once to facilitate international trade with reducing time and cost”.

2. Benefits of establishing a single window

A single window aims to facilitate international trade to make the processes and procedures as simple and efficient as possible for all trade related authorities, companies and governments. Generally government take initiative to implement a single window to promote its international trade.

1) Cutting Transaction Costs

One time submission of standardized and simplified electronic information and data makes trade process and procedure efficient. Each government agencies could share the required information which reduce overall data requirements and prevent tedious paper work. The reduced paper work enables to save the cost as well. Less people need to work to fill each standard form of each agencies, therefore it would allow companies have better deployment of human resources. Single window enables paperless trade to materialize with less consumption of paper at work. Also less

12) ICC, “Updated ICC recommendations for a WTO agreement on trade facilitation”, *ICC Discussion Paper*, 2007, p.4
<http://www.iccwbo.org/uploadedFiles/ICC/policy/customs/Statements/104-53%2006%20FINAL.pdf>

13) <https://www.uTradeHub.or.kr/>

14) UN/CEFACT stated that a single window does not necessarily use of high-tech information and communication technology. However UN/CEFACT acknowledged that trade facilitation can enhanced if governments adopt relevant IT technologies for a single window. Since everyone agrees that trade facilitation cannot be progressed without proper IT technologies, this research defines single window as a electronic system which accept electronic data and information.
 UN/CEFACT, “Recommendation No33-Recommendation & Guidelines on Establishing a Single Window”, p.3.

traveling to each agencies for document submission.

According to UK SITPRO, having a single window facility could have UK businesses save between 160 million pound to 190 million pound.¹⁵⁾ Korean System Integration and consulting company SK C & C and Hyundai Research Institute estimated economic benefits of paperless trade would be 2.98 billion USD. Reduction of labor costs would be 263.3 million USD, reduction of printing costs 19.1 million USD, reduction of warehousing cost 1.36 billion USD.¹⁶⁾

Also UTradeHub itself only could save labor cost, printing cost and transportation expenses up to 65.9 billion Korean won(58.6 million USD).¹⁷⁾ Including UTradeHub overall electronic trade could save 596 million Korean won excluding 16 million Korean won of system set up cost for UTradeHub.¹⁸⁾

2) Faster Trade Process

Single window contribute to save time of trade process and procedure. All automated internet system make the process faster which helps bureaucratic processes reduced.¹⁹⁾ It is not just about faster computer system or automatic data process. Majority of required confirmation documents of government agencies are same documents. Through comparison among three Korean government agencies- Korea Food and Drug Administration, Ministry of Agriculture&Forestry, Ministry of Environment-, 48% of required documents are common among these three agencies.²⁰⁾ With single window, common documents are required to submit only once. Therefore the overall procedure time could be much shorter than conventional process.

According to Korea International Trade Association²¹⁾, exporters and importers drive 11.3 km to banks, 41.4km to customs and 18.5 km to other related institutions to hand over 3.6 documents. Shipping and air cargo companies travel 9.5km to Customs and another 14.9km to other entities

15) SITPRO, "International Trade Single Window and Potential Benefits to UK business", *SITPRO Single Window Report*, 2005, p.3.

16) UNNexT, "Towards a single window trading environment", *UNNexT Brief*, No. 03, May 2010, p.4.

17) Choi Yong-min·Kim woo-jong, "Green Trade procedure-Analysis economic benefits of Electronic Trade", *Trade Focus*, Institute for International Trade, Vol.9 No. 64, p.7.

18) Choi Yong-min·Kim woo-jong, *op.cit.* p.13.

19) Hong Xue, "Challenges and Opportunities: A Regional Agreement on Electronic Exchange of Trade Data&Documents", *Asia-pacific Trade Facilitation Forum 2010*, p.4. http://www.unescap.org/tid/projects/tfforum10_bs1_xue.pdf

20) UN/CEFACT, "Recommendation on Data Simplification and Standardization for International Standard", UN/CEFACT Draft Recommendation No.34, 2009, p.26.

21) Choi Yong-min·Kim woo-jong, *op.cit.*, p.14.

to clear 3.8 documents. Forwarders travel 44.2 km to customs and 13.0 km to other agencies to clear 6.8 documents. Single window reduces troublesome visiting to each agencies.

3) Enhanced security

The most significant character of Single window is submitting information just once. Then duplicated information would be submitted to required form or deployed to another system. There is no chance to put different information for different system unlike manual submission by people.

According to ICC Banking Commission, the discrepant documents consist of 60 to 70 percent of total refusal in letter of credit documentary transactions.²²⁾ The discrepant documents could be caused by simple mistakes with wrong information in the required form during manual process. Single window reduces errors with minimized date re-entry.²³⁾

Also single window allows to track and screen of shipments for security purposes, for the selective targeting of goods in emergency situations²⁴⁾ such as health concerns and terror without asking the information.

4) Reducing greenhouse gas emission

Single window can give us another huge benefit. Electronically processed information reduce paper documents and minimize vehicle driving to submit the documents. In Korean case²⁵⁾, electronic trade(including single window) can reduce paper consumption by 420 million pieces per year which is equal to 727,000 trees. It also minimize vehicle driving to deliver those documents by 140 million km per year which reduce 28,620 ton of carbon dioxide emission. To sum up, electronic trade, including single window, can reduce carbon dioxide emission up to 57,397 ton and preserve 1.45 million trees in a year.

As reduction of greenhouse gases is one of main plan of many countries, the importance of single window also would increase to keep path with the changes.

22) Kang Won-jin, *Letter of Credit*, Parkyoungsa, 2004, p.14.

23) TradeXchange (Mar 27, 2011 visited)

https://www.tradexchange.gov.sg/tradexchange/default.portal?_nfpb=true&_nfls=false&_pageLabel=main_about&_type=tx&_page=about&_action=view

24) SIRPOT, *op. cit.*, p.3.

25) Choi Yong-min-Kim woo-jong, *op.cit.*, pp.13-15.

III. Korean Single Window and China progress on e-Trade

1. Korean National Single Window- uTradeHub

Export has been a backbone of Korean economy. From one of the world's poorest countries in 1950's, Korea has emerged as one of OECD high income economies²⁶⁾ in 2000's. The miracle is based on the export. Korea has turned to electronic (paperless) trade in 1980's to deal with drastically increasing trade volume efficiently. The nation's highly developed technology also helped to launch electronic trading system.

1) Progress in Korean Electronic Trade

Korean paperless trade has evolved out of simple paperless trade system to web based single window system through 90's to 2000's. In 1991, Korean government enacted the 'Act on Promotion of Trade Business Automation' which served legal ground for paperless trade development. Then series of VAN(Value Added Network)/EDI (Electronic Data Interchange) based services are introduced. This was not yet open web based system but still saved lots of time and cost to process trading documents.

As the 21st century arrived, Korean paperless trade system has started shifting to web based online system. Korea joined Pan Asia e-Commerce Alliance. Also the early model of uTradeHub was introduced in 2007. uTradeHub was called e-Trade Platform initially. The name changed to uTradeHub with seamless ubiquitous internet connection thanks to the high information technology.

<Table 1> Progress of Electronic Trade in Korea²⁷⁾

Introduction Stage (1989~1993)	Basic Plan for Foreign Trade Process Automation (1989)
	Act on Promotion of Trade Business Automation(1991)
Growth Stage(1994~2000)	Electronic Data Interchange(EDI) for export/import approval and letter of credit(1994)

26) Korea joined the OECD in 1996. Korea's GDP per capita (PPP) is 29,791 USD in International Monetary Fund data in 2010.

27) UNNexT, "Towards a Single Window Trading Environment, Case of Korea's National Paperless Trade Platform-uTradeHub", *UNNexT Brief* No. 03, May 2010, p.2.

	Export declaration (1994)
	EDI for import declaration (1996)
	Export/Import Manifest Consolidation System (1996)
	EDI for export/import freight and tariff duty refunds (1997)
	Electronic Certificate of Origin(e-C/O) and notary of Commercial Invoice and Internet based EDI (2000)
Take-Off Stage(2001~2007)	Pan Asia e-Commerce Alliance (2001)
	Internet Management System of Logistics(eLogisFrame) (2001)
	National e-Trade Committee (2003)
	Plan for e-Trade Facilitation (2003)
	Launch the project for internet based national paperless trading system (2005)
	uTradeHub (2007)
Upgrade Stage(2008~present)	KTNET as Electronic Bill of Lading(e-B/L) Title Registry (2008)
	Electronic Negotiation system (2010)

2) The first web based single window

The world's first web based single window²⁸⁾ uTradeHub, driven by then Ministry of Commerce, Industry and Energy²⁹⁾ and KITA³⁰⁾(Korea International Trade Association), was launched in 2007 after three years of establishment. The uTradeHub covers overall trade related processes from finding a possible buyer and/or seller to settlement by linking trading entities such as domestic banks, foreign banks, the Korean Financial Telecommunications and Clearings Institutue, the Korean Customs Service, and logistics companies.³¹⁾

KTNET³²⁾ was designated as the e-Trade service provider for uTradeHub. KTNET has worked with KITA and Ministry of Commerce, Industry and Energy to automate export-import process based on the VAN/EDI network. While the existing VAN/EDI based trade automation services

28) Singapore is believed to establish the world's first national single window (Tradenet) in 1989 however the web based single window TradeXchange was launched in October 2007. uTradeHub was officially launched in May 2007 which is 5months earlier than TradeXchange that makes uTradeHub as the world first web based single window.

29) The name of ministry is changed to Ministry of Knowledge Economy in 2008.

30) As a private association of trading companies KITA established in 1946.

31) www.utradehub.or.kr 29 Mar., 2011.

32) KTNET is a 100% subsidiary firm of KITA. KTNET is established in 1991 to promote trade business automation.

provided separate services one on one³³⁾, the internet based uTradeHub provides multiple services on one website.

The uTradeHub consists of five different categories such as uTrade, uLogis, uBankers, uTradeSearch, uCustoms. The uTrade categories provide e-Negotiation service. The e-Negotiation service makes conventional trade procedure to totally online service from receiving letter of credit, preparing negotiation documents to receiving negotiation results. All relevant documents such as letter of credit, bill of lading, certificate of origin, insurance policy are submitted as e-documents through the process.

The uLogis and uBankers provide e-B/L service which enables electronic receipt of shipping instruction from trading companies and e-B/L issuance. The uCustoms service help customs brokers conduct clearance operations on the internet. The uTradeSearch is an integrated search portal to search for trade information and to seek possible buyers and sellers.

The ministry of knowledge economy named twenty e-trade leading companies including six small and medium size companies and three shipping companies in December 2010. The big companies are supposed to connect to the uTradeHub through its own ERP(Enterprise Resource Planning) while medium and small size companies are supposed to connect to uTradeHub directly. Currently, only 47% of companies use e-trade but the ministry aims to increase the usage to 75% by 2015.³⁴⁾

3) Ubiquitous connection to the world

The web based uTradeHub not only allowed to reduce burdensome documentation requirements also to name Korea as one of the most trade friendly countries. The average days of 178 economies to export is 23.1 days while Korea takes only 8 days. The average days to import is 25.8 days while Korea takes 7 days. This made the republic of Korea sit on 8th in the trading across border easy countries ranks.³⁵⁾ Also International Finance Corporation (IFC) and World Bank mentioned Korean electronic portal as one of the most advanced single window system.

However, uTradeHub has so far remained domestic electronic trading platform. To pursue

33) www.utradehub.or.kr 29 Mar., 2011.

34) KITA, "e-Trade leading 20 companies named", Press Release, Dec. 10, 2010.

35) International Finance Corporation·World Bank, *Doing Business 2011-Making a difference for entrepreneurs*, International Finance Corporation·World Bank, p.63.

borderless trade, partnership with other countries, governments and related entities are crucial. The connection to other national single window system finally will make seamless e-trade eventually. Korean government pushes to build overseas networks for e-trade platform with countries like Japan and China. Also Korea has exported uTradeHub related software and equipment to seven nations including Uzbekistan, Mongolia and Libya, etc.³⁶⁾

4) Key Success factors of uTradeHub

There are three success factors of uTradeHub. First, the strong government lead and the support, Second, related entities' active coordination and Third, the sound legal frame for e-trade.

It is very special case to pursue the e-trade at national level like Korea. The strong support and lead of Korean government for ubiquitous trade was one of the biggest success factors of uTradeHub. The Korean government inspired, nurtured and strongly supported to materialize the successful uTradeHub. Since e-trade is the new industry, the traditional industries' rules could be an obstacle to implement the new industry. When the government takes the initiative in the e-trade, these obstacles could be easily removed.

Active participation of all related entities such as banks, big companies, and private organization in the uTradeHub also led to the success. The entities cooperated with government agencies and envolved the project all together which made the launch of the uTradeHub in short time period. Especially big companies' involvment -such as Hyundai in the project led to small and medium size subcontract enterprises' participation.

Since e-trade is a new industry and a single window is a new concept, it is necessary to enact a new regulation which applies to the new industry. The conventional regulations and rules often misjudge the circumstances and interpret inaccurately. Especially data protection and information security are important to facilitate e-trade. Korea has enacted seris of e-trade related regulations and rules to offer solid legal ground for uTradeHub

2. China progress on e-Trade

China has emerged as the world's second largest economy and the largest economy in Asia.

36) Korea Herald, "Paperless trading system cuts costs, time", Apr. 8, 2010.

The fast economic growth was backed by China's massive trade surplus. The world factory China produces clothes, plastic products with cheap plentiful labor to personal computer, electronic goods. The information technology also has improved a lot though, still China is in the pre-single window stage.³⁷⁾

1) The progress of e-Trade in China

Like many trade dependent Asian economies, China has also focused on paperless and/or e-trade development. China established EDI International Trade Service Center in October 1995. The key player of future China national single window, E-Port project has started in 1998. After 10 years of development, the percentage of computer based clearance to total number of customs clearance of China extended to 100%.³⁸⁾

The Golden Gate project(The Golden Custom project) is one of The Golden Projects which are e-government projects- carried by the People's Republic of China in 1993. It's long term objective is to facilitate the modernization of China's international trade and economic transaction system by using computer network technologies.³⁹⁾ The operator of golden gate project is state-owned company CIECC which is established by the Ministry of Commerce of PRC in 1993 for the project. The mission is to construct, operate and maintain the backbone website of the Golden gate project of the country's key informationalization construction project as well as to undertake international cooperation and foreign exchanges of state-level electronic commerce.⁴⁰⁾

Conducting the golden gate projects, Shanghai customs was the first customs house in China to conduct paperless clearance in Feb, 2002. Around the time, seven other customs houses, including Ningbo, Qingdao, Nanjing, Hangzhou, Shenzhen, Gongbei and Huangpu had been put on trial paperless clearance. Beijing customs tried E-Port paperless clearance project earlier in 2000.⁴¹⁾

37) CHAN FOOK SENG, *CAREC Workshop on Single Electronic Window Development- Possible Approach for a Regional Road Map of Single Window Development for CAREC*, ADB, Jul. 16, 2009, ADB.

38) APEC, *Single Window Report- Working Toward the Implementation of SW in the APEC Economies and International Interoperability*, Sub-Committee on Customs Procedures(SCCP), Sep.15 2010. p.3.

39) Organisation for Economic Co-operation and Development(OECD), *Governance in China*, 2005, p.151.

40) Trade2CN.com, *E-commerce the world*, p.3. www.unescap.org/tid/projects/tfforum_trade2cn.pdf 30 Mar., 2011.

41) 500 Firms to try electronic customs clearance in Shanghai, Ministry of Commerce People's Republic of China archive, Sep.19, 2002, www.enorth.com.cn

〈Table 2〉 Milestone on e-Trade in China⁴²⁾

1995	EDI International Trade Service Center
1996	The Golden Gate Project(China International Electronic Commerce Network(CIECC) as an operator)
1998	E-Port project started
2000	E-Port pilot project (Beijing Customs)
2001	Nation-wide implementation of E-port project
	State Council called for integration of data exchange for customs (Da Tong Guan)
2004	Shanghai Easipass Platform

2) Key players for China single window

Currently there are few possible leading agencies for a national single window in China. The first candidate is the national E-port system 'China E-Port'. If we limit the single window to the automated customs clearance, China already has one.⁴³⁾ However, we define the web based trade facility which process all trade related procedure with one submission as a single window earlier in this research. In that sense, China still is in the pre-single window state.

As of 2011, China E-port provides information exchange and sharing with government agencies such as General Administration of Customs, State Administration of Foreign Exchange, State Ministry of Taxation, State Ministry of Industry and Commerce, Ministry of Commerce, Ministry of Public Security, Ministry of Railways, China Council for the Promotion of International Trade. It also exchange information with overseas institutions and commercial companies such as Trade and Industry Department of Hongkong, Economy Bureau of Macau and other 11 banks including Bank of China, Industry and commercial Bank of China, Agricultural Bank of China, Bank of Communications, China Merchants Bank.⁴⁴⁾

Another promising candidate is the CIECC. This state owned companies was in charge of the golden customs projects as well as a e-commerce platform provider. CIECC has two major service area such as e-government and e-commerce services for domestic and foreign enterprises. CIECC constructed the e-government platform of the Ministry of Commerce which integrates nearly 100

42) Jian Wang, "China Progress Towards Single Window and Paperless Trade", United Nations ESCAP, Oct. 2010, p.4.

43) APEC deals the single window as customs clearance single window. The single window project is under sub-committee on Customs Procedures.

44) China E-Port website. www.chinaport.gov.cn/en/china_eport 30 March 2011.

e-government application projects that provide enterprises with secured online application, examination/approval, record for file, policy consultation and industry guidelines.⁴⁵⁾

Other than e-government platform, CIECC is the only third party administratively qualified Certificate Authority(CA) on the state ministry level awarded by Ministry of Information Industry. Also CIECC has operated B2B E-commerce service website Trade2CN through an affiliate China B-to-B Holdings.⁴⁶⁾

Lastly, each local government who has established it's own single window could be a leading agency for national single window. The Shanghai Easipass(www.easipass.com) is one of this local single windows. The Shanghai foreign economic relations and trade commission and the Shanghai Information Office cooperated to integrate the Shanghai economic and trade network, Shanghai EDI center, and port EDI center. In 2001, Shanghai Easipass completed the integration of three websites, and set up a single window providing port and logistic information in Shanghai.⁴⁷⁾ Easipass provides e-payment service for tax, bonds and fees which was 105 billion yuan in 2009. It has 4500 enterprise customers and 96.65 million transactions in 2009.⁴⁸⁾

IV. Challenges and Opportunities: China Single Window

It is no arguable that China aims to establish the national single window to facilitate its trade. This research thoroughly examine if China has successful factors of national single window. This four successful factors are legal ground, leading agency, government support and advanced technologies. Considering Korean single window has gone through this process and had similar problems, comparison between Chinese environment and Korean one time to time will be used for better understanding.

45) CIECC website. http://ciecc.ec.com.cn/en_about 30 Mar., 2011.

46) Trade2CN website. http://en.trade2cn.com/templates/include/templates/about_us.html 30 Mar., 2011.

47) Shanghai government website. 30 Mar., 2011.

www.shanghai.gov.cn/node17256/node17745/node17802/node17805/userobject22ai28491.html

48) Jian Wang, *op.cit.*, p.9.

1. Strong Government Support

Many countries pointed out the lack of government support as difficulty in the development of single window system.⁴⁹⁾ Not strong political will sometimes lead to lack of budget which causes another difficulty to establish a single window. However, Chinese government has been showing strong will to establish e-trade platform to promote trade.

In 2005, Liao Xiaoqi, then Vice Minister of Commerce attended the APEC Symposium on Paperless Trading and said that Chinese government will realize paperless government management, promote customs clearance of paperless trading and carry out international exchange and cooperation.⁵⁰⁾ In China's 11th five year plan, Chinese government pressed that the government will actively propel the building up of EDI based customs and endeavor to improve the clearance efficiency.⁵¹⁾

Korea national single window uTradeHub has been backed by Korean government also. The Ministry of Knowledge Economy led the uTradeHub with other government agencies such as Korea Customs Service, Public Procurement Service. Therefore, China single window has a solid ground to set up the platform with strong government support.

2. Legal framework for Single Window

Since single window is a new concept, it is necessary to create a legal environment for single window. Especially exchanging confidential document in electronic form makes the data protection and information security such as e-signature and electronic recognition technology⁵²⁾, very crucial in the success of single window. If the laws and regulations are not enacted to implement single window or computerized systems, it will require lengthy periods of time to establish single window.⁵³⁾

49) APEC, *op.cit.*, p.2.

50) Mr.Liao Xiaoqi Attended and Addressed the Inauguration of the 2005 APEC Symposium on Paperless Trading in Beijing, Ministry of Commerce People's Republic of China, Press Release, Sep. 7, 2005.

51) China's 11th five year plan, Ministry of Commerce People's Republic of China, Press Release, Mar 8, 2006.

52) Meng Xia, "E-commerce Legal Framework Country Report: China", APEC Study Center of Nankai University, p.3. The author mentioned it referring to e-commerce, however we think it applies to single window as well. www.apec.org.au/docs/xia.pdf 31 Mar., 2011.

53) APEC, *op.cit.*, p.2.

To prepare single window enable legal environment, Korea has enacted Act on promotion of trade business automation in 1991, Act on e-Trade Facilitation in 2003, Act on E-Commerce in 1999, Digital signature law in 1999.

China has also been enacted a series of laws and regulations such as Electronic Signatures Law in 2005. Also Protective rules for computer information system security, Safety regulation of computer information and internet, and regulations on computer information and internet privacy were enacted to support network security in general e-commerce. The copyright law also included computer software to protect its work. Although there are no obvious e-commerce and/or e-trade related law, still China already has a solid ground for single window. However, certain e-trade related law could promote e-trade as well as single window as the gate of international trade.

3. Related Entities coordination

In the early stage of single window, there are multiple players in Korea claiming to be a single window. However, there should be only one single window to implement all trade procedures. If there are many of single windows that trading companies should contact, it's not a single window yet. Korea Customs Service established customs single window Unipass while Ministry of knowledge Economy established uTradeHub. However, it is expected that two so called single windows would be integrated eventually.

Currently, China single window seems to have many single window wannabes. The China E-port claims to be a national single window with combining clearance service and related logistics and commercial services. It also aims to exchange information with single windows of other countries to realize international single window cooperation.⁵⁴⁾ The CIECC subsidiary Trade2CN also claims that it is a single window electronic commerce of trade system with providing trade negotiation, arranging shipment and so on.

China already acknowledged that coordination between stockholders, identification and authorization of the leading unit as problems of developing single window.⁵⁵⁾

54) Wei Yuan, "Development & Application of E-Port in China"- Workshop on Single Electronic Window Development for CAREC, 2009, p.16.

<http://www.adb.org/Documents/Events/2009/CAREC-Single-Electronic-Development/SW-PRC1-Eport-Development.pdf> 31 Mar., 2011.

55) APEC, *op. cit.*, p.14.

It is very important to designate one entity as a single window as well as to cooperate among related agencies. China will find a solution eventually, but we would like to suggest that the CIECC as a main agency of single window with connecting to E-Port. As single window is supposed to cover whole trade procedure not just customs clearance, the CIECC has better opportunities to connect to related agencies without much confliction as a company rather than a government agency.

4. Advanced Technology

To establish a single window relevant information technology is mandatory. China, fortunately, has achieved tremendous technological improvement in recent years. The number of internet users reached 298 million with the annual growth rate of 41.9% while internet penetration reached 22.6% by the end of 2008.⁵⁶⁾ It is little behind to Korea which has the highest number of household internet penetration rate 93%⁵⁷⁾, considering most single window users are trading companies, related institutions such as banks, shipping companies. Still Chinese IT ground is good enough to establish solid single window system. IT technology won't be an obstacle to establish a national single window in China.

V. Conclusion

The single window is an irreversible trend in technology advanced international trade. Especially for Asian countries which are heavily dependent on export, single window is one of the best method to reduce time and cost.

Korea has established the world first web based single window uTradeHub in 2007. The uTradeHub provides seamless trade process from marketing to customs clearance and to settlement by linking trading entities such as banks, Korean customs service and logistics companies.

In the early stage, there were several entities hoping to be a leading agency of the Korean

56) China Internet Network Information Center, *Statistical Survey Report on the Internet Development in China*, Jan. 2009, p.4.

57) Robert D. Atkinson·Daniel K. Correa·Julie A. Hedlund, E, *Explaining International Broadband Leadership*, The Information Technology and Innovation Foundation, May 1. 2008, p. 6.

single window. Also legal environment was not enough ready. As time goes, uTradeHub has been progressed by supporting modern technologies and solid legal ground. Currently 45% of companies use e-trade while customs clearance is 100% automatically processes in e-trade in Korea. Korean government aims to increase the e-trade usage to 75% by 2015.

Chinese single window is yet pre-single window stage as of 2011. The customs clearance is automatically processed thanks to China E-Port system. However, still there are more than one player claiming to provide single window service. The state-owned CIECC and China E-Port are aiming to be a nation-wide single window. Also each local government has established its own single window system to process customs clearance for local corporations. While strong government support and advanced technology make solid ground for the single window, it is the issue of the leading agency and legal framework for single window. We suggest that the CIECC as a leading agency with linkage to E-Port service for seamless trade service for companies. The customs clearance is part of single window service, as well as the CIECC as a company could have more flexible approach to overseas single window service than government agency. The legal environment is not perfect but it's improving. To sum up, Chinese single window will be materialized in near future by a leading agency with a help of strong government support.

Reference

- Ahn, Byung-Soo·Han, Min-Chung, "A comparative study on the single window between Korean and Singapore", *Journal of Korea trade Vol.11 No.3* , November 2007
- Ahn, Byung-Soo·Han, Min-Chung, "A study on the Requisites of Single Window for International Trade in Korea", *E-business research Vol.7 No. 5*, December 2006(Korean)
- APEC Sub-Committee on Customs Procedures(SCCP), *Single Window Report- Working Toward the Implementation of SW in the APEC Economies and International Interoperability*, Sep. 15, 2010
- CHAN FOOK SENG, *CAREC Workshop on Single Electronic Window Development- Possible Approach for a Regional Road Map of Single Window Development for CAREC*, ADB, Jul. 16, 2009

- China Internet Network Information Center, *Statistical Survey Report on the Internet Development in China*, Jan. 2009
- Choi Yong-min·Kim woo-jong, "Green Trade procedure-Analysis economic benefits of Electronic Trade", *Trade Focus*, Institute for International Trade, Vol.9 No. 64(Korean)
- Hong Xue, *Challenges and Opportunities: A Regional Agreement on Electronic Exchange of Trade Data&Documents*, Asia-pacific Trade Facilitation Forum 2010
- ICC, "Updated ICC recommendations for a WTO agreement on trade facilitation," *ICC Discussion Paper*, 2007
- International Finance Corporation·World Bank, *Doing Business 2011-Making a difference for entrepreneurs*
- SITPRO, "International Trade Single Window and Potential Benefits to UK business," *SITPRO Single Window Report*, 2005
- Jian Wang, *China Progress Towards Single Window and Paperless Trade*, United Nations ESCAP, Oct. 2010T
- Kang Won-jin, *Letter of Credit*, Parkyoungsa, 2004(Korean)
- KITA, "e-Trade leading 20 companies named," Press Release, Dec. 10, 2010(Korean)
- Korea Herald, "Paperless trading system cuts costs, time," Apr. 8, 2010
- Meng Xia, *E-commerce Legal Framework Country Report: China*, APEC Study Center of Nankai University
- Ministry of Commerce People's Republic of China, Press Release, 500 Firms to try electronic customs clearance in Shanghai, Sep.19, 2002
- Ministry of Commerce People's Republic of China, Press Release, China's 11th five year plan, Mar. 8, 2006.
- Ministry of Commerce People's Republic of China, Press Release, Mr.Liao Xiaoqi Attended and Addressed the Inauguration of the 2005 APEC Symposium on Paperless Trading in Beijing, Sep. 7, 2005.
- Organization for Economic Co-operation and Development(OECD), *Governance in China*, 2005
- Robert D. Atkinson·Daniel K. Correa·Julie A. Hedlund, *Explaining International Broadband Leadership*, The Information Technology and Innovation Foundation, May 1, 2008.
- UN/CEFACT, "Recommendation on Data Simplification and Standardization for International

Standard," *Draft Recommendation* No.34, 2009

UN/CEFACT, -"Recommendation & Guidelines on Establishing a Single Window,"
Recommendation No.33, 2005

UNNext, "Towards a single window trading environment," *UNNext Brief* No. 03, May 2010

Wei Yuan, *Development & Application of E-Port in China- Workshop on Single Electronic Window Development for CAREC*, 2009

www.aseansec.org

www.chinaport.gov.cn

www.shanghai.gov.cn

www.tradexchange.gov.sg

www.unescap.org

www.uTradeHub.or.kr

www.wcoomd.org

ciecc.ec.com.cn

en.ec.com.cn

webarchive.nationalarchives.gov.uk

국문초록

한국의 싱글 윈도우 모범 사례를 통해서 본 중국 싱글윈도우의 실태 분석과 제언

한민정*·안병수**

싱글 윈도우는 무역 촉진의 중요한 부분으로 세계 각국 특히 무역 의존도가 높은 아시아 국가들이 적극적으로 참여하고 있다. 한국은 지난 1990년대 무역자동화를 시작으로 2007년 한국형 싱글 윈도우인 uTradeHub를 오픈했고 2010년에는 uTradeHub상의 전자네고시스템을 개발, 인터넷에서도 신용장 네고가 실현되었다. 특히 통관 부분에 국한된 많은 나라들의 싱글윈도우와 달리 한국의 uTradeHub는 세계 최초의 웹 기반 싱글 윈도우로 바이어나 셀러를 찾는 단계에서부터 최종 결제까지 인터넷에서 이루어지는 것이 특징이다. 현재까지는 국내에서만 한해 이와 같은 싱글 윈도우 서비스가 가능하지만 외국 싱글윈도우와의 연계를 통해 단절없는 싱글 윈도우 서비스를 제공한다는 목표이다.

중국은 싱글윈도우 구축에 있어서 여타 아시아 국가에 비해서 다소 늦게 출발했다. 골든게이트 프로젝트로 시작된 무역 자동화가 E-port 프로젝트를 통해서 전자 통관서비스로 이어졌다. 현재 중국에서 싱글윈도우의 주체로 고려되는 대상은 전자통관시스템주체인 '차이나 E포트'와 한국의 KINET과 유사한 CIECC, 싱글 윈도우를 운영하는 각 지방 정부 등이다.

싱글윈도우의 성공 조건인 적극적인 정부 지원, 법적 기반의 마련, 관련 기관간의 협조, 적절한 기술 조화 등을 고려했을 때 법적 기반이 다소 미흡하긴 하지만 중국은 이미 성공을 위한 요건은 대부분 갖추었다고 볼 수 있다. 중국의 싱글 윈도우를 이끄는 주체로는 경쟁 체제인 지방 정부보다는 중앙 정부의 적극적인 지원을 전제로 해서 기업인 CIECC가 진행하는 형태가 바람직할 것으로 생각한다. 특히 향후 외국 싱글윈도우와의 원활한 연계를 위해서도 기업이 비즈니스 파트너로서 나서는 것이 바람직하다고 분석되어진다.

주제어 : 싱글윈도우, e-Trade, 유티레이드허브, E-Port, Shanghai Easipass

* 제1저자. 중국 동화대학교 래플즈 디자인 인스티튜트 경영학과 강사

** 교신저자. 서울디지털대학교 물류통상학부 부교수