### A Study of the Role of Customs in Global Supply Chain Management and Trade Security Based on the Authorized Economic Operator System

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#### Abstract

The core aims of Authorised Economic Operator (AEO) are to establish an international corporate identity system and encourage supply chain enterprises to maintain high degrees of safety and security in their international trading. This paper conducts an in-depth study of customs management thinking regarding the AEO system and actively explores its implementation and integration with international customs standards common practice and fulfilling the requirements of any international obligations. The government will need to work with enterprises in developing basic conditions on AEO certification, recognising and dealing with problems as they arise, while seeking to maintain the facilitation of customs clearance for excising law-abiding and sustainable trade routes and ensuring the security.

Keywords: trade facilitation, trade security, AEO system, cooperation, customs external auditing, risk management

According to Economic historian Angus Madison, for nearly five hundred years, most of the achievements of the global economy development were the reduction communication and transportation costs associated with economic liberalization. And declining transportation and communication costs will continue to promote global economic integration. International logistics industry will help national economic development, and improve the competitiveness of national life enhancement by having an important impact. Customs entry and exit as the national regulatory authority, charged with the sacred duty of checks and services is an important part of modern logistics management chain, and its management practices process the most direct and close contact in the logistics. At the same time, along with the growing international trade and more severe trade frictions, World Customs Organization (WCO) is being focusing on the relationship between customs and business, which showed significant shift the bottom line from the perspective of trade promotion to the development of the enterprise itself, from a focus on customs duty between multinational, transnational responsibility, to tend between the business community to simplify customs clearance procedures from the goal, turning the entire supply chain to achieve facilitation, quietly changing international customs functions to enable Customs to rise to partnerships with the business community of a "strategic" height (World Customs Organization, 2015).

With a fast increase in the import and export trade volume and the existence of abundant processing trade and tax reduction and exemption, illegal activities still exist in the import and export channels. There is no actual change of the integrity status of the society. The growing inconsistencies between the strict execution and

the high-efficient operation as well as the increasing trade volume and the limited management resources become more and more severe. And it is a critical problem confronting the Customs, which is building a modern Customs system with Chinese characteristics. It is also the case with the international customs. The traditional way of relying on personnel input to improve the customs control quality can not suit the new situation. Since 1990s, the world Customs have surged up the new wave of reform and modernization with regard to adjusting the management functions, reforming the management system, innovating the management technologies and implementations and shifting the management philosophy so as to adapt to the changing of current situation.

## 1. AEO system---the Base of the International Trade Facilitation and Security

Trade facilitation and security have always been the two major themes for the reform and development of the world Customs. In June 2005, China Customs signed "Framework of Standards to Secure and Facilitate Global Trade", which is advocated by WCO. In order to promote the effective implementation of the relevant standards of 'Customs-to-Business Partnerships', the WCO Framework introduces the concept of Authorized Economic Operator, known as AEO (CP3 Group, 2006). Any enterprise involved in the international trade, which is willing to join and proved to be in compliance with the safety standards and requirements of the international supply chain, could be authorized by the Customs as an AEO, so as to be granted the trade facilitation privileges.

The rate of the smuggling cases keeps high in the processing trade in those customs surveillance zones located in many parts of the world, which are not connected to the e-control networks. There is a stable ratio of smuggling cases in processing trade to those in commercial frauds. Therefore with the help of e-control networks, the customs management procedures are being simplified to improve the clearance efficiency. In the meantime, the security and authenticity of the data exchanged among the regional Customs in processing trade are ensured. The essence of modern Customs system is to build a both benefited co-operative Customs-to-Business Partnership. Customs authority, as a government administration, needs to build a new management mode and a set of operational mechanism to cultivate and maintain the relationship with their business partners. The co-operations are based on the promissory obligations between the Customs and businesses, with the aim that the business partners can abide by the rules while the Customs should administrate according to national law and regulations. With the principle of "facilitation for the law-abiding enterprises and punishment for any dishonest ones", the Customs may guide the enterprises to be honest and law-abiding so as to standardize the import and export operation. To strengthen the authorization of AEO is the base for realizing the security and facilitation of international trade (World Customs Organization, 2008).

The AEO program under the 'Framework of Standards to Secure and Facilitate Global Trade' promoted by WCO requires the Customs to grant the authentication to the following enterprises joining in the international supply chain, including: manufacturers, importers, exporters, brokers, carriers, consolidators, intermediaries, ports, airports, terminal operators, integrated operators, warehouses and distributors according to the WCO standards or equivalent supply chain security standards. An international corporate identity system should be established, covering the private businesses which offer a high degree of security guarantees in respect of their role in the supply chain. These business partners should receive tangible benefits from such partnerships in the form of expedited processing and other measures. The implementation of the AEO program secures the successful realization of the facilitation and security in international trade (U.S. Customs and Border Protection, 2006).

In the definition of the WCO Customs-Business Partnership, you must attach importance to such partnerships (Partnership), security (Security), authorized certification (Authorization), technology (Technology), communication (Communication), convenience (Facilitation) these factors the key role, especially in the 21st century global advocacy and research to implement

the customs network, will provide a great convenience for the customs and generally established business partnerships, but will also enable efficient international interoperability become an urgent requirement for the effective realization global supply chain security and trade facilitation to pave the way (U.S. Customs and Border Protection, 2008). Trade frictions and protectionism in international trade not only exacerbated the decline in global trade, but also the associated adverse impact on the supply chain quickly spread to the entire international trade.

In practice, a variety of measures were established to promote trade facilitation, mostly reflected in the program and through trade facilitation, coordination of applicable laws and regulations, standardization and improvement of infrastructure such as international trade and create a simplified, coordinated transparent and predictable environment. Therefore, the content of trade facilitation involves very extensive, including almost all aspects of business processes, including customs and cross-border system is the core of the problem, in addition to including transport, licensing, quarantine, electronic data transfer, payment, insurance and other financial requirements, business information and other aspects. In World Bank "Reform in the regular procedure of import and export", the report states that "trade facilitation program, the problem is a national need for a comprehensive legal and institutional reforms, rather than the customs of a thing." For a long time, international trade security is simply understood as to reduce trade frictions, eliminate trade barriers and trade liberalization. After the 9.11, the United States developed countries and regions, such as Europe increasingly paying attention to the safety of international logistics. In response to developments, customs and relevant regional organizations urgent desire to implement a cooperation in the international" safeguards both convenient and unobstructed flow of goods, and can effectively achieve a 'safe' as the core of the customs management functions "of the new system." Kyoto Conventio "early on partnership between customs and business are described, communication between the Customs and the business community, in consultation and cooperation with the perfect balance is critical to achieving effective regulation and convenience in this process customs authorities will be law-abiding traders as partners." 2005, "the partnership between customs and the business community " as a "Global framework of Standards to Secure and Facilitate Trade," one of the two pillars, the "standard framework" for customs partnercertified operators (AEO) were clearly defined, provides enterprises become AEO must meet minimum standards and benefits obtained. In 2008, the "21st Century customs" documents made it clear that in the 21st century Customs should establish strategic partnerships with trusted operators, the "mutual benefit and win-win" as its ultimate goal (Tweddle, 2007).

With the full launch of the Doha Round, WTO started to promote cooperation between the WCO, Customs and the business community of positive interaction will become an integral part of the legal framework for international trade content. In order to improve the overall business management of the customs performance targets, actively carry out routine inspection, special inspection and verification inspection, the practical realization of customs supervision and space "front push shift" (Gutiérrez *et al.*, 2013).

# 2. Customs Risk Management---the Key to Ensure Trade Facilitation and Security

Gradually, WCO realizes the basic factors to ensure security and facilitation in the global trade lie in the businesses as the risk in the enterprises is also the inherent trouble for customs management. For this problem, Customs administration may avoid, transfer, accept yet take it under control or conduct some other risk-control policies. The adoption of these strategies is based on the Customs' information about the business. AEO system derives in this sense. It focuses not only on the importing or exporting goods, but also on the business internal risks involved in the trading activities. management techniques, business structure, information flow, globalization, etc. may directly affect the inherent risks in the business. If the authorization limits to the traditional way of inspection into the business accounts related to import and export activities, but not considers the overall risk management, this may increase rather than control the risk effectively. The above mentioned example---e-control network of processing trade is a case in point. With the wide use of the existing management, business structure, process design and information technology in the modern business community, the traditional mode of customs external auditing may be unable to conduct the inspection on the revised data by the business. It is comparatively easier for the old approaches of auditing to check the small-medium-sized, off-line enterprises as they are not very much complicated, that's why one can track down such cases in this field. The traditional way of customs auditing lacks effectiveness in identifying the inherent risks in the business. The adoption of the risk management mode will be helpful to the effective administration of the customs external auditing. The key to the implementation of AEO system is the application of customs external auditing based on risk management (Fletcher, 2007).

## 2.1 Conditions and requirements for the authorized economic operator authorization

administrations Member and businesses acknowledge the importance to secure the supply chain and facilitate the cross-border movement of goods. Both the Customs and the enterprises realize the enhancement of one aspect may lead to the effective function of the other. The Authorized Economic Operators in the international supply chain should adopt the selfassessment system measured to the pre-determined security standards and best practices to ensure that their internal policies and procedures provide adequate safeguards against the compromise of their goods and containers until they have been released from Customs control at destination. The Customs-to-Business Partnership program, based on the trading mode of AEO, allows the enterprises to make the secure plans flexibly in view of their own characteristics. The Customs administration and the AEO may both realize and jointly set out secure and cooperative measures, which should be based on the commercial mode of AEO and in written form and by testified procedures, reflect the willingness of AEO business partners, including manufacturers, product suppliers and vendors, to obey the security criteria set out in the WCO Framework. Based on the risk-analysis, Customs administration should inspect the business flow and security measures regularly according to the security procedures of the agreement made with the operators involved. Integrate different statistic data from the executing units, help enterprises fill in the charts and collect valuable information, get to know company's self-control system. To be specific, there are thirteen conditions and requirements for Customs and businesses in the "Authorized Economic Operator Guidelines". They are: (1) demonstrated compliance with Customs requirements: Customs shall take into account the demonstrated compliance history of a prospective AEO when considering the request for AEO status; (2) satisfactory system for management of commercial records: The AEO shall maintain timely, accurate, complete and verifiable records relating to import and export. Maintenance of verifiable commercial records is an essential element in the security of the international trade supply chain; (3) financial viability: Financial viability of the AEO is an important indicator of an ability to maintain and improve upon measures to secure the supply chain; (4) consultation, co-operation and communication: Customs, other competent authorities and the AEO, at all levels, international, national and local, should consult regularly on matters of mutual interest, including supply chain security and facilitation measures, in a manner which will not jeopardize enforcement activities. The results of this consultation should contribute to Customs development and maintenance of its risk management strategy; (5)

education, training and awareness: Customs and AEOs shall develop mechanisms for the education and training of personnel regarding security policies, recognition of deviations from those policies and understanding what actions must be taken in response to security lapses; (6) information exchange, access and confidentiality: Customs and AEOs, as part of an overall comprehensive strategy to secure sensitive information, shall develop or enhance the means by which entrusted information is protected against misuse and unauthorized alteration; (7) cargo security: Customs and AEOs shall establish and/or bolster measures to ensure that the integrity of cargo is maintained and that access controls are at the highest appropriate level, as well as establishing routine procedures that contribute to the security of cargo; (8) conveyance security: Customs and AEOs shall jointly work toward the establishment of effective control regimes, where not already provided for by other national or international regulatory mandate, to ensure that transport conveyances are capable of being effectively secured and maintained; (9) premises security: Customs, after taking into account the views of AEOs and their necessary compliance with mandatory international standards, shall establish the requirements for the implementation of meaningful Customs-specific security enhancement protocols that secure buildings, as well as ensure the monitoring and controlling of exterior and interior perimeters; (10) personnel security: Customs and AEOs shall, based on their authorities and competencies, screen the background of prospective employees to the extent legally possible. In addition, they shall prohibit unauthorized access to facilities, transport conveyances, loading docks and cargo areas that may reasonably affect the security of those areas in the supply chain under their responsibility; (11) training partner security: Customs shall establish requirements and mechanism whereby the security of the global supply chain can be bolstered through the commitment of trading partners to voluntarily increase their security measures, as may be more fully set forth in supplemental national criteria; (12) crisis management and incident recovery: In order to minimize the impact of a disaster or terrorist incident, crisis management and recovery procedures should include advance planning and establishment of processes to operate in such extraordinary circumstances; (13) measurement, analysis and improvement: The AEO and Customs should plan and implement monitoring, measurement, analysis and improvement processes.

## 2.2 Application of Risk management based on AEO System

The traditional approach of customs external auditing includes concrete approaches as checking materials, examining goods, etc. in order to define and

seize any illegal cases, which may finally lead to punishment or rectification of the enterprises concerned. Nevertheless, the Customs control aims at systematic supervision over companies' operations from different angles but not at investigation into possible illegal cases (Grainger, 2012). The application of the AEO system requires the Customs administration to conduct the auditing based on risk assessment so as to evaluate and testify the enterprise's legal status, to standardize its internal management and to enhance the sense of lawabiding and self-discipline. So, it is necessary to put the customs external auditing into action (Haughton, 2011).

Based on the acknowledgement of the business operations and the risks involved, this auditing evaluates overall risk-management of the companies comprehensively and provides more safeguards for the conducted risk-control campaign by Customs administration. It limits the monitoring scope and focuses on high risk fields. Furthermore, compliance testing and substance testing may be applied better. Depending on the automated management system, this mode gets into different layers of businesses and tries to find out weaknesses and risks by way of examining the internal control system. Then, it may further audit and check the truthfulness and legitimacy of the import and export operation accordingly. It is effective to enable the auditing officials to detect problems or vulnerability and identify legal status of the businesses correctly with less endeavor and shorter period of time (CP3 Group, 2005).

The main structure is below:

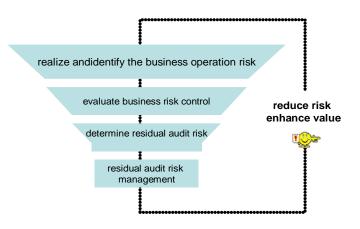


Fig. 1: the structure of the Risk Management

According to the chart, Customs auditing officials should acknowledge the internal control management of the personnel involved in the import and export activities, including the essential situation of the business, flow of the shipments, capital, information and manpower, etc. Collect relevant internal control materials and conduct compliance testing one item after another to examine and prove the system's integrity,

credibility, enforcement and validity. In the event of obvious weaknesses and risks of the system, the substance testing will be necessary for some selected items in order to detect if such vulnerability may lead to any illegal cases against national law and regulations. After the testing, it is time to evaluate the risk control, determine residual audit risk, and take different measures accordingly. If everything under auditing is OK without evident weakness upon the completion of the checking, we can draw the conclusion of "no problem", and finish the auditing task. If there is any trouble, the government shall ask the business community involved to make some improvement and rectification. The companies won't get through the checking until they meet the necessary requirements of the customs management. In case of any illegal cases against national law and regulations, a routine auditing will be adopted in time to conduct more items of substance testing in the light of risks and weaknesses. If there is any tax problem concerning the companies during the checking, we shall differentiate the situation respectively. With regard to overdue taxes they have to pay, they may get a pass. Concerning a supplementary tax imposed on the business, they can't get the pass. If there exist possible smuggling or other illegal cases against national law or regulations, the company won't be through the auditing at all (Rodwell et al., 2012)

In different stages of the auditing, we should focus on different parts by way of appropriate means of inspection according to actual needs. In the first stage, we may make use of the approaches such as "business analysis framework", "business risk model", "business information flow", "business performance review", "business risk management process", etc. In the second stage, we can adopt methods like "risk control process framework", "risk control standard matrix", "information credibility testing", "risk control identification", "risk control evaluation", "risk control testing", "control reliance decision tree", etc. During the third stage---the period of determining residual audit risk, we should pay attention to the fact that if there is any risk which hasn't reduced to the degree of the acceptable level. If there exists the possibility, examine if some of the checking procedures are not effectively used. In the final stage, we think about proper suggestions to the enterprises concerned for the improvement of their risk control process. Therefore, the business can better satisfy the conditions and requirements of AEO system.

### 3. Conclusion

The new system of AEO aims at the establishment of a new partnership between Customs and business, in order to ensure the security and facilitation in the global trade. Yet, Customs and businesses may have different benefits and sometimes they are conflicting. Customs insist on more tariff, "Collect all the duties that should be done accordingly" whereas the businesses hold the opinion of the fewer the better. The key to the issue is the credibility, qualification, law-abiding of the business and the fair, polite law-enforcing of the Customs. Any lapse of either part may affect and damage the partnership. The customs external auditing on the enterprises is to promote a harmonious co--operation and mutual development of Customs building. AEO program needs not only Customs internal information, but also other social support and feedback, such as the information relevant to the enterprises and commodities from the bureau of industry and commerce, administration of taxation, administration of foreign exchange control, banks, etc. We shall set up a good relationship with different departments. Customs administration will contact and audit the businesses which may apply for AEO system. Customs may set a model to demonstrate the capability to execute in accordance with law and to enforce the law for the people. It is also a significant channel to prevent possible illegal offences and create a better situation for import and export trade. Through AEO program, business can strengthen a standard management system; enhance a sense of law abidance and self-discipline. A new partnership, aiming at winwin co-operation between Customs and business will be formed, which may benefit Customs development. In this respect, customs external auditing will shoulder heavier responsibility and have an ever larger arena through the AEO system.

In a long run, the concern over trade security should be highlighted. The scope of the Customs service should be extended to the main players in the international supply chain. The needs of SMEs should be addressed. Risk management should be further incorporated into the AEO system. The existing preferential or facilitative measures should be integrated and streamlined. All the AEOs can enjoy the uniform treatments nationwide and worldwide.

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