

# WTO Obligations and Trade Facilitation: The Role of Information and Communication Technologies

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**Abstract**—Free trade presupposes not only freedom to trade but also the existence of necessary conditions to effectively exercise the freedom. This warrants a more positive role for governments to facilitate trade, which also has the potential to enhance trade fairness. The present paper identifies various obligations relating to trade facilitation both within and outside WTO framework and raises a pertinent question whether there exists a specific obligation to facilitate trade? It elaborates how trade facilitation manifests itself within diverse WTO obligations and explores recent WTO initiatives aimed at consolidating the element of trade facilitation with regard to a select set of trade obligations. In this process, the paper examines the role of ICT and the Internet in facilitating international trade and investigates how much the same is explicitly recognized by international trade regimes and institutions. The last part of the paper discusses the trade facilitation in a specific domestic context of Macau SAR and enquires how much of the same is achieved through the use of ICT.

**Keywords**—ICT and trade facilitation, legal obligation to facilitate trade, trade facilitation and Macau SAR, trade obligations and trade facilitation.

## I. INTRODUCTION

The objective of achieving free and fair trade by the World Trade Organization (WTO) raises an important corollary regarding the role of trade facilitation. Interesting questions arise including what are the obligations in the WTO that pertains to trade facilitation and are there any specific international obligations to facilitate trade flows (arising within or outside the WTO)? Given the foreign origin of international trade and the consequential implications on foreign traders, the use of Information and Communication Technology (ICT) and the Internet is expected to provide an effective means of achieving trade facilitation. This raises a related question how for the role of such technologies are recognized in context of trade facilitation and is there any related specific legal prescription in this regard? The present paper examines the above questions in the light of WTO regime and related international developments. To explore how trade facilitation

could manifest in a specific jurisdiction (arising out of multilateral or other forms of trade cooperation) and identify some of the actual role played by ICT, the paper examines evidences of trade facilitation in Macau SAR.

## II. THE CONCEPT OF TRADE FACILITATION

Trade facilitation is an important tool to obtain liberalized trade and related measures would benefit national economies and business. Different trade facilitation measures have been recognized in various international and regional cooperation such as WTO and Kyoto Convention on the Simplification and Harmonization of Customs Procedures (Kyoto Convention) including the release of information, easy access to documentation, simple and standardized administrative procedures, necessary infrastructure for trade, etc. ICT is found to have the potential to not only improve efficiency and reduce trade cost but also achieve trade facilitation. The legal recognition of the role of technology is reflected in instruments like the Revised Kyoto Convention and APEC's Second Trade Facilitation Action Plan.

Tariffs have been significantly decreased in past seven decades. Much of this achievement could be attributed to the General Agreement on Tariffs and Trade 1947 and the establishment of the WTO, which contain binding rules on tariffs reduction. Meanwhile, developments in areas such as transports, logistics, infrastructure, information technology directly lead to important reduction in trade cost and time, and substantive improvement in trade efficiency. However, international trade is still costly. The reasons are not the tariff or quantitative restrictions but diverse trade conditions and practices at domestic level. [1] Various situations in different areas such as import duties, administrative procedures, access to trade information, necessary infrastructures and transport have added considerable cost to trade. The research on international trade cost conducted by World Bank identified non-traditional obstacles, such as port efficiency, regulatory barriers, customs environment do increase trade costs. [2] According to the Organization for Economic Co-operation and Development (OECD), 1% decrease in world trade costs would increase about USD 40 billion incomes and reducing 5% of the time at the border could increase about 10% export volume in regional export in Sub-Saharan Africa. [3]

Trade facilitation has been proposed under such circumstances to increase the efficiency of transactions and decrease the cost. Trade facilitation could be realized in various

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segments including customs, governance, policy, finance, infrastructure constructions, logistics, as well as information technology. The World Custom Organization (WCO) takes a narrow perspective and limits trade facilitation to customs. It is defined as “the avoidance of unnecessary trade restrictiveness” and “enhancement the efficiency and effectiveness of customs administrations by harmonizing and simplifying customs procedures”. More specifically, trade facilitation further refers to the WCO efforts in areas such as “conventions, standards and programs and technical assistance and support for capacity building”. In the definition of Asia-Pacific Economic Association (APEC), trade facilitated is conceptualized as “simplification and rationalization of customs and other administrative procedures that hinder, delay or increase the cost of moving goods across international borders”. [4] This interpretation refers trade facilitation as to administrative procedures, which includes customs. The core issue of WTO negotiation on trade facilitation launched in 2004 is on rules of permissible and prohibitive measures during trade process. The WTO defines the scope of trade facilitation to administrative process, referring to “enhancing technical assistance and support for capacity building in this area and developing provisions for effective cooperation”. [5]

The World Bank proposed two definitions of trade facilitation, narrow and general. From a narrow perspective, it could only refer to the logistics and administrative procedures, such as transport and customs that linked to the process of trade from one country to another. From a general one, it is considered to include all issues that are relevant to the trade, the trade environment, such as the efficiency of the transport, access to regulations and documents, transparency of trade policy, and application of technology to reduce cost and time. Definitions of trade facilitation are varied from different point of view; nevertheless, the core idea of trade facilitation remains the same. That is to create an efficient trade environment for an easier movement internationally.

Trade facilitation not only involves direct interests of business, but also involves that of government. Trade facilitation provides an opportunity for governments to fit neatly into the gap between domestic regulations and international rules, and exercise positive impacts on national economy. The APEC investigation demonstrated that trade facilitation could exceed the impact of trade liberalization and create APEC a 0.26% direct increase (nearly US\$45 billion) in GDP, but the growth led by trade liberalization would be about a half of the gain from trade facilitation. [6]Therefore, trade facilitation benefits governments as well.

### III. TRADE FACILITATION AND TRADE OBLIGATIONS

#### A. *The WTO Obligations Related to Trade Facilitation*

Under current international trade law, there are several provisions that relate to trade facilitation in binding legal instruments. In the WTO regime, GATT 1994 and WTO agreements contain directly related provisions. Under GATT 1994, Art.V on freedom of transit requires the Members “shall not be subject to any unnecessary delays or restrictions” when other contacting party needs entry to the territory for the traffic

of transit. And the most-favored-nation (MFN) treatment is also contained in this provision. Art. VIII on fees and formalities connected with importation and exportation focuses on the simplification objective and prohibits some unreasonable burdens of costs on trade. In the Agreement on Import Licensing Procedures further specify procedures of Art. VIII and recognized the unnecessary use of licensing procedures could harm international trade. The agreement also aims at simplification and regulates import licensing procedures in automatic and non-automatic way and specifies a time requirement of proceeding procedures. Art. IX on marks of origin requires contracting parties should act in good faith to reduce inconveniences and cooperate in recognizing laws and regulations. Art. X on publication and administration of trade regulations responds to the transparency need in trade facilitation and obligates members to “promptly publish all laws, regulations, judicial decisions and administrative rulings” that related to trade. In the Agreement on Customs Valuation, Art.VII sets out the principles that govern the valuation of imported duties or other fees for the simplification purpose. The Agreement on Preshipment Inspection was initiated to reduce non-tariff barriers in outsourcing public service that may affect imports. As the WTO obligations are implemented by governments, these obligations could obligate the government to regulate private activities for trade facilitation purpose. The Agreement on Technical Barriers to Trade is designed to prohibit protectionist obstacles for importers and exporters in various national technical standards and regulations. Under this agreement, governments of Members are bound by transparent requirement regarding international uniformed technical standards and regulations. Similar duties could also found in Agreement on the Application of Sanitary and Phytosanitary Measures. In the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), in addition to contain transparency obligation in Art.III, special border measures is directly related to trade facilitation to include required assistance from the customs administration in release and circulation of goods.

#### B. *The Obligation to Facilitate Trade*

Contrasting with obligations that relate to trade facilitation, obligations to facilitate trade has become increasingly important in trade discussion to be directly addressed. In the WTO regimes, for instance, the negotiation on trade facilitation was launched in 2004. This negotiation is focused on specifying three provisions of the General Agreement on Tariff and Trade (GATT 1994) related to movement of goods (Article V Freedom of Transit), administrative procedures (Article VIII Fees and Formalities connected with Importation and Exportation) and transparent issues of domestic law (Article X Publication and Administration of Trade Regulations). Clarifying on the three articles, the main idea in proposals from member aims at a speedier movement of goods with more transparency and predictability, the proposed measures are intended to improve trade environment through the WTO functions, like access to information, predictability,

simplification of procedures and documents and free transit of goods. Actually, the WTO started its efforts to address trade facilitation as early as in Singapore Ministerial Declaration in 1996. This Declaration included a specific concern on trade facilitation. However, the trade facilitation efforts were opposed by less developed countries, which intended to avoid undertake obligations more than their implementation capacity. Under this circumstance, the WTO in 1996 tried to focus on technical assistance instead of directly address trade facilitation. This could be observed in the wordings of the Declaration that “minimizing the burdens on delegations”. [7]

The WCO was established to enhance the trading efficiency and promote cooperation among customs areas world while. More importantly, the WCO has achieved to adopt obligations to facilitate trade as part of an international convention. The Kyoto Convention was adopted in 1974 and revised in 2006 to satisfy the trade facilitation needs in the specific context of custom procedures. Comparing the 1974 version, transparency, predictability, standardization and simplification of documentation and procedures, the significance of use ICT, cooperation in trade are highlighted as governing principle. Besides, the Revised Kyoto Convention is featured not only by the newly included compulsory provisions, but also by its non-acceptance of reservation. [8] Thus, comparing to the version of 1974, the revised one has a stronger binding force. In the Revised Kyoto Convention, state parties shall maintain efficient customs procedures, which shall be consistent with international standards. Moreover, trade facilitations measures such as computerized customs systems, pre-arrival information should be taken to release goods faster at borders.

#### IV. IMPLEMENTING TRADE FACILITATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY

With the emergence and wider application of ICT, the objective of trade facilitation to increase trading efficiency and reduce cost has been well implemented through electronic means, such as electronic data interchange (EDI), electronic payment, online administrative procedures, and electronic forms of documents. The significant development of logistics services, for instance, is mainly brought about by the well-established information systems. The ICT, like customs automation, online tracking movement of goods, electronic single windows, enables relevant information easily accessed and cost and time significantly reduced.

##### *A. Obligations and Recommendation to Use the Information and Communication Technology in Trade Facilitation*

In the field of customs cooperation, the WCO has adopted conventions and recommendations to standardize and simplify various procedures on transit of goods. These main efforts have been initiated in the revision process of the Kyoto Convention. The trade facilitation enhanced by electronic means was contained in principles of the Revised Kyoto Convention, which have been already translated into domestic legislation of at least 40 member customs systems. More specifically, “maximum practicable use of information technology” was adopted as key principles of the Revised Kyoto Convention.

And the articles in its general annex not only obligates customs administration to use information technology in goods declaration and customs control, but also prescribes detailed requirements to ensure the application of information technology in national practices. Firstly, it states that information technology should be used in customs when customs consider situations as cost-effective for both Customs and trade; second, custom procedures should also follow international standards when they use computer applications; thirdly, relevant standard should meet documentary requirements in e-commerce. For implementation concerns, the Revised Kyoto Convention requires governments adjust their use of information technology in consistence with the international criteria within a specific period.

In the particular focus on trade facilitation during the Doha Round of WTO negotiations some specific references to ICT applications relating to Article V(Freedom of Transit), VIII (Fees and Formalities on cross-border transit) and X (Publication and Administration of Trade Regulations)of the GATT1994 were made. In the proposals before the negotiation, the objective of trade facilitation and relevance of information technology have been included. Clarifying the three articles, the proposals further contains transparency requirements in dispute settlement procedures, avoidance of discretionary charges and customs, clear standards which follow international criteria. Proposals are also seeking simplification and unification of domestic procedures, fees and documents. The proposed solutions are that a new agreement on trade facilitation can include the transformation of electronic forms, automatic payment, downloadable documents and information. Even though these proposals could ultimately fail to be adopted as binding obligations; the intensions demonstrate the universal recognition of the significance of electronic means in information access, data interchange, and tendency of automatic procedures for a lower cost and higher efficient trade environment. In the sector of service, more than sixty-one WTO members have made commitments on EDI. The use of Internet service is foreseen including electronic mails and online information access.

At regional level, use of ICT in trade facilitation is contemplated in the APEC Second Trade Facilitation Action Plan as APEC’s Trade Facilitation Principle. The use of ICT is mainly applied to reduce clearance time at border and simplify documentation. To implement this principle, this Plan includes objectives and actions for Member states to follow. The technology should be applied in payment methods, implementation of policies, enhancement of transparency, protection of private data, e-governance over logistics and interchange information.

##### *B. Challenges in Application of ICT*

Implementing trade facilitation through ICT means confronts some challenges in practice. First, for countries where infrastructure cannot satisfy the requirements of electronic means, technology challenges would arise. The need to address the technology gap has been considered as part of aid for trade. The Aid for Trade mainly contains two aspects. One is about technical assistance, like helping target countries develop their own strategies in international trade. The other is

related to trade facilitation infrastructure constructing, such as building roads, airports, information technology and communications. In the WTO regime, the Trade-Related Technical Assistance and Trade –Related Capacity Building (TRTA/CB) was jointly launched by WTO and OECD in this regard.

Second, investments in information technology could be costly as well, particularly for less developed countries. Current literature on the application of information technology in trade facilitation tends to emphasis mainly on the benefits. Automation, for instance, is advantageous beyond doubt; however, the regular updating and maintaining the electronic systems could also mean cost, which could offset the benefits derived from trade facilitation. Although costs are varied in different domestic regimes and no unified template could be followed at international level, there are certain elements of costs that could be identified in automation process. In a research on automation experiences, OECD found that costs of Automated Systems for Customs Data in both OECD and non-OECD countries can be identified in installing, maintaining, and purchase of necessary hardware.[9] Thus, part of costs could be predictable.

#### V. REFERENCE TO THE TRADE FACILITATION IN MACAU SAR

As an individual customs administration as well as a party of the Revised Kyoto Convention, Macau should undertake the conventional obligations to facilitate trade and use information technology in goods declaration and customs control, and ensure the application of use of electronic means in trade facilitation in consistence with international standards. Similarly as a member of WTO, Macau is obligated to fulfill WTO obligations related to trade facilitation identified earlier in this paper. However, more interestingly the trade facilitation in Macau transcends beyond WTO obligations and some of the trade facilitation realized in Macau arises from the regional trade cooperation.

As an individual trade area, Macau has established close trade cooperation with mainland China. Mainland and Macau Closer Economic Partnership Arrangement (CEPA) is an important trade facilitation agreement cover trade facilitation, trade in goods and service. It came into effect in 2004 to promote trade facilitation as principal objective between the two regions. Trade costs have been reduced remarkably due to the implementation of the CEPA. Before the CEPA came into force, 273 categories of good that produced in Macau could enter Mainland with zero tariffs. The CEPA entitles 1,259 categories of Macau made goods that meet origin regulations zero tariff treatment until December 2011 (according to 2011 Mainland Tariff Codes) and exempted tariff as much as USD193.3 billion. CEPA also takes Macau's condition into special arrangement for its lack of port infrastructure, and granted Macau preferential treatment on movement of goods via Hong Kong. Macau is eligible to import raw materials and semi-manufactures without charges, which considerably decrease the production cost. More importantly, Trade facilitation relevant fields, such as information technology, standardization and simplification of administrative procedures and documents, information exchange, legal and regulatory

transparency, electronic commerce have been specifically contained in the CEPA agenda. Regarding the application of information technology in trade facilitation, electronic signature certificates are mutually recognized by Macau and Guangdong Province. In the Tenth Section of Implementation in 2012, CEPA has been an essential mutual-beneficial forum for trade both in Mainland and Macau.

Macao Trade and Investment Promotion Institute (IPIM) is the main governmental organ responsible for trade facilitation. The web portal of this organ is used as an important electronic platform to implement trade facilitation. It not only provides necessary information, such as information of administration regulations, procedures, exhibition and conference. It also contains a well-established single window system on offshore service and company registration separately. Regarding that the majority of business in Macau is small and medium enterprises (SMEs), a part on SMEs is contained as a striking feature of this electronic platform. To promote SMEs use electronic means to explore commercial opportunities and enhance their capacity in the information technology era, the institute establishes a compressive platform, E-Commence, for information and resource sharing. The SME Service Centre has been set up to help SMEs to utilize the E-Commence in promotion of brands products and service. In addition, the Institute also encourages SMEs to promote business through E-Commence by Incentive Measures, such as subsidies to as much as 70% of service fees. In the Franchising model website for retails, the institute has not only organized Macao Franchise Expo and established the SME Service Centre, but also provide online One stop service, consultation, online access to regulations, online application, online matching services.

In the field of customs clearance, Macau has initiated EDI system by Macau Productivity and Technology Transfer Centre for the simplification purpose since 1999. Automated compilation and transition of purchase orders and other documentations, online application and approval of licensees and declarations are available in this system. Procedures that are taken days could be completed in hours. Besides, an organization that was established and owned by the government in 1999, *Transferência Electrónica de Dados - MACAU EDI VAN S.A. (TEDMEV)*, is to promote electronic commercial service and simplify administrative procedures, particularly the international trade documents. After joining in the Pan Asian E-Commence, Alliance, TEDMEV have followed relevant international standards in trade facilitation. In 2004, the scope of the TEDMEV online services expanded to include all sorts of licenses and declarations for foreign trade operations, which considerably provides an easier access to trade information and reduce the time of customs clearance procedures.

#### VI. CONCLUSION

When facilitating trade becomes fundamental in realizing free trade, efforts have to be continuously made to achieve trade facilitation as part of international legal obligations. This could be observed within and outside of the WTO regime. The Revised Kyoto Convention is a good example to specifically address trade facilitation as obligatory rules. However,

recognizing trade facilitation as legal obligations cannot be easily achieved in multilateral negotiations. More obligations would imply additional burdens, which cannot be easily accepted by countries, particularly those less developed countries with limited implementation capacities. However, cooperation in trade facilitation at regional level or bilateral levels could be realized with fewer difficulties and this could be a good starting point for achieving a wider trade facilitation aimed at multilateral trade cooperation. The bilateral trade cooperation between Mainland China and Macau SAR is a case in point which has been fruitful in realizing the objectives of trade facilitation. Besides, the use of ICT has become indispensable as an important tool to effectively achieve trade facilitation. Any efforts towards developing international obligations requiring trade facilitation should necessarily built in the elements of ICT in order to ensure that the resulting trade facilitation would indeed be able to meet the needs and realities of modern global trading. The example of WCO in revising the Kyoto Convention is a case in point, which experience should provide relevant insights to the Doha WTO negotiations on trade facilitation. A much stronger obligation to facilitate trade, especially using ICT, would go a long way in ensuring that global trade remains free and fair.

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