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Trade Facilitation: A Conceptual Review

Andrew GRAINGER*

With falling tariff levels, it is probably not surprising that the non-tariff area and trade facilitation, in particular, are receiving growing attention. Apart from the World Trade Organization (WTO), trade facilitation is a subject of substance within a wide range of international organizations including several United Nations (UN)-type bodies, the World Customs Organization (WCO) as well as those concerned with economic development, supply chain security, and sector-specific issues such as international transport and logistics. The resulting body of international trade facilitation instruments and initiatives, which include conventions as well as detailed technical recommendations, is extensive. This article provides a general review of key elements and topics that are associated with trade facilitation and sets them against underlying challenges and obstacles in practice as well as for research. While much of the current effort in trade facilitation begins with a top-down premise – whereby governments seek to implement international conventions and recommendations nationally – the author argues that trade facilitation is inherently an operations-focused topic and deserves to be approached from a bottom-up approach, too. Such approach not only provides a strong case for an interdisciplinary research agenda, it also brings into question whether current institutions concerned with trade facilitation have the necessary capabilities to apply themselves to the more operational aspects associated with international trade.

1. INTRODUCTION

The last few decades have witnessed an exponential growth in trade and a considerable reduction in tariff levels. It is probably a natural progression for trade negotiations to now refocus their efforts on the non-tariff area. In this context, trade facilitation has come to particular prominence at the World Trade Organization (WTO) – where it was first formally raised at the 1996 ministerial meeting in Singapore. While associated Singapore issues such as transparency in government procurement, trade and investment, and competition policy have been dropped, trade facilitation remains a strong agenda item with considerable momentum. This can be observed within the Doha trade round¹ and also in ongoing aid-for-trade and trade facilitation-specific capacity building programmes,² Economic Partnership Agreements, as well as in the area of supply chain security and border

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¹ For example, World Trade Organization (WTO), 'WTO Negotiations on Trade Facilitation: Compilation of Members' Textual Proposals' (Negotiating Group on Trade Facilitation, WTO, 2009), TN/TF/W/43/Rev.19.

² World Trade Organization/Organisation for Economic Co-operation and Development (WTO/OECD), 'Doha Development Agenda Trade Capacity Building Database (TCBDB)' (WTO/OECD, 2010).

management reform where trade facilitation is seen as a vehicle to overhaul existing control regimes for the benefit of both government and business stakeholders.

Of course, the concept of trade facilitation is nothing new. Right from the onset, the General Agreement on Trade and Tariffs (GATT), in the preamble, made explicit reference to its ambitions for the ‘other’, non-tariff barriers to trade.³ Further back in time, keen observers of history are likely to find plenty of examples by which traders and governing officials seek to simplify trade operations. For example, it was not uncommon for market towns in Europe to display applicable weights and measures publicly. In the event of any dispute, trading parties could quickly verify their own weights against those on public display.

The topic of trade facilitation is very much focused on the operational aspects of international trade and as such differs somewhat from the more economic flavoured discussions associated with trade tariffs traditionally seen to be at the heart of trade negotiations. More specifically, trade facilitation looks at the quality of the trade environment and how it impacts on efficient trade operations. Brian Staples adeptly describes trade facilitation as the plumbing of international trade.⁴ Apart from the relatively recent pressures stemming from international trade negotiations, there are several systemic factors underlying today’s case for trade facilitation.

For example, border agencies – such as customs, immigration, phytosanitary, and quarantine inspectors, among many others – are faced with the operational challenge of having to accommodate exponential growth in trade volumes with only a finite amount of control resources (such as manpower and facilities) at their disposal. Traditional frontier checks, visually symbolized by the boom barrier, seem outdated and inefficient when tackling such escalating trade volumes. Trade facilitation, in this context, is about being able to apply controls more effectively without disrupting trade flows and freeing up enforcement resources to focus on clandestine border movements.

Similarly, there is growing political pressure to accommodate tighter security within trade operations. Especially in response to 9/11, some policy circles perceive the supply chain to be a particularly open and vulnerable system for misuse by terrorist and criminals.⁵ Emerging control regimes that are being developed to address these vulnerabilities make explicit reference to trade facilitation.⁶ They recognize (either explicitly or implicitly) that trade facilitation and collaborative control arrangements with business stakeholders, which need to be suitably incentivized, are necessary for a tighter control regime that is not just limited to border checks alone and expands across the entire supply chain.⁷

³ GATT, *the General Agreement on Tariffs and Trade* (WTO, 1947).

⁴ B.R. Staples, ‘Chapter 16 – Trade Facilitation: Improving the Invisible Infrastructure’, in *Development, Trade, and the WTO: A Handbook*, ed. B. Hoekman, A. Mattoo & P. English (Washington: World Bank, 2002), 139–148.

⁵ For example, S.E. Flynn, ‘America the Vulnerable’, *Foreign Affairs* 81, no. 1 (2002): 60–74.

⁶ For example, World Customs Organization (WCO), *WCO SAFE Framework of Standards* (Brussels: WCO, 2007).

⁷ A. Grainger, ‘Supply Chain Security: Adding to a Complex Operational and Institutional Environment’, *World Customs Journal* 1, no. 2 (2007a): 17–29; Kommerskollegium, *Supply Chain Security Initiatives: A Trade Facilitation Perspective* (Stockholm: Kommerskollegium (National Board of Trade), 2008).

Then, there is also the national competitiveness argument. It holds that in a world characterized by a globalized production structure⁸ and competition on a global scale,⁹ any domestic-driven bureaucratic red tape applied by government executives will place business stakeholders at a disadvantage. In contrast, where a government succeeds in reducing the compliance burden upon its business community, their international competitiveness is seen to be well served.¹⁰ In this context, trade facilitation is also closely associated with development aid and trade capacity building programmes and has recently enjoyed a considerable increase in funding, too.¹¹

The trade compliance burden, which the concept of trade facilitation seeks to overcome, tends to have multiple facets but usually relates to the direct costs of submitting information to the authorities (such as to Customs) as well as the indirect or subsequent costs resulting from time delays and missed business opportunities.¹² This article provides a conceptual review, outlining the scope of trade facilitation, its goals, elements, and principles set against practitioner experience and the current literature. This article aims to inform debate and stimulate much needed academic enquiry while providing a high-level introduction to this very current and pressing topic.

2. TRADE FACILITATION DEFINITIONS AND RECOMMENDATIONS

While there is no one single definition for trade facilitation, the WTO, in a training note on its website, once prominently defined trade facilitation as: ‘The simplification and harmonisation of international trade procedures’ where trade procedures are the ‘activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in international trade’.¹³ Many trade facilitation proponents also make reference to the procedures applicable for making payments (e.g., via commercial banks). This is emphasized, for example, in the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) definition where trade facilitation is viewed as ‘the simplification, standardization and harmonisation of procedures and associated information flows required to move goods from seller to buyer and to make payment’.¹⁴

⁸ For example, as described by P. Dicken, *Global Shift: Reshaping the Global Economic Map in the 21st Century* (London: Sage Publications, 2003).

⁹ For example, T. Levitt, ‘The Globalization of Markets’, *Harvard Business Review* 61, no. 3 (1983): 92; C.K. Prahalad & Y. Doz, *The Dynamics of Global Competition* (New York: Free Press, 1986).

¹⁰ For example, World Bank, ‘Doing Business – Trading across Borders’, <www.doingbusiness.org/ExploreTopics/TradingAcrossBorders/>, 10 Apr. 2010a; World Bank, ‘Logistics Performance Index (LPI)’, <www.worldbank.org/lpi>, 13 Apr. 2010b.

¹¹ For example, reported aid for the most narrowly defined trade facilitation projects has increased from USD 100 million in 2001 to USD 392 million in 2006 (WTO/OECD).

¹² Organisation for Economic Co-operation and Development (OECD), *Business Benefits of Trade Facilitation. Working Party of the Trade Committee* (Paris: OECD, 2001), TD/TC/WP(2001), 21; Organisation for Economic Co-operation and Development (OECD), *Quantitative Assessment of the Benefits of Trade Facilitation, Working Party of the Trade Committee* (Paris: OECD, 2003), TD/TC/WP(2003)31/Final.

¹³ WTO, 1998.

¹⁴ Organisation for Economic Co-operation and Development (OECD), *supra* n. 12, 2001.

As such, trade facilitation looks at how procedures and controls governing the movement of goods across national borders can be improved to reduce associated cost burdens and maximize efficiency while safeguarding legitimate regulatory objectives.¹⁵ The modernization of trade and customs procedures and administrative practices – in particular through use of information and communication technology (sometimes referred to as ICT) – is often a key element in addition to the simplification, standardization, and harmonization objectives.¹⁶ However, for many practitioners, trade facilitation is simply about reducing the volume and impact of *red tape* – a term traditionally associated with wasteful and time-consuming bureaucracy – found in international trade operations. It is not uncommon for trade facilitation proponents to also be concerned about other operational frustrations that plague efficient international logistics operations, such as the quality of transport infrastructure (i.e., ‘transport facilitation’) and corruption.

As outlined, there are multiple drivers pushing the trade facilitation agenda forward. These include the operational pressures faced by border inspection staff in an environment of escalating trade volumes, political pressures to tighten up supply chain security, demands for improved business competitiveness, and international pressures that have placed trade facilitation into mainstream trade policy. Subsequently, a multitude of international organizations are applying themselves to the topic. These include, among others, the WTO, the World Customs Organization (WCO), the UN/CEFACT, the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA), the International Maritime Organization (IMO), the International Chamber of Commerce (ICC), as well as a multitude of international business interest and sector-specific institutions. In addition, organizations like the World Bank, the United Nations Conference on Trade and Development (UNCTAD), the Organisation for Economic Co-operation and Development (OECD), as well as regional bodies, such as United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and Asia-Pacific Economic Cooperation (APEC), have actively contributed to the international trade facilitation agenda. Much of their intellectual output is accessible via the Global Facilitation Partnership for Transportation and Trade portal (www.gfptt.org).¹⁷

The formalized recommendations produced by these international bodies extend from standards about the layout of paper documents,¹⁸ electronic messaging standards between

¹⁵ I originally penned this particular definition while writing up my PhD thesis (A. Grainger, *Trade Facilitation and Supply Chain Management: A Case Study at the Interface between Business and Government* (London, Birkbeck: University of London, 2007b)). In April 2006, I also used this definition for an entry on Trade Facilitation in Wikipedia – which Google suggests has been copied extensively.

¹⁶ For example, the recent overhaul of EU customs legislation was initially driven by modernization objectives (e.g., A. Grainger, ‘Trade Facilitation and Import-Export Procedures in the EU’, Briefing Paper, European Parliament’s Committee on International Trade (Brussels: European Parliament, 2008b); TAXUD/477/2004).

¹⁷ A web portal developed and maintained by a range of core partners, including a multitude of UN bodies, the World Bank, and the WCO.

¹⁸ For example, United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), *Recommendation No. 1: United Nations Layout Key for Trade Documents* (Geneva: United Nations, 1981). ECE/TRADE/352, 37.

electronic trade systems (e.g., the UN/CEFACT's Electronic Data Interchange Standard 'EDIFACT') to the harmonization of customs procedures and legislation (e.g., the WCO's Kyoto Customs Convention or the WCO's Harmonized System for tariff classification). Other examples of international initiatives include UNCTAD's open source software developments for electronic customs systems (ASYCUDA) or IATA's electronic freight initiative,¹⁹ which seeks to radically cut the paperwork and modernize the electronic systems used by airlines and airports in international air-cargo operations. Noteworthy are also those recommendations that have institutional reform ambitions, such as UN/CEFACT's specific recommendation for the creation of national trade facilitation bodies – the so-called PRO (for PROcedures) committees²⁰ – or that aim to radically overhaul national electronic trade infrastructure and the interface between government agencies and traders, such as through the implementation of a Single Window system.²¹

Then, there are also the GATT Articles V, VIII, and X addressing the Freedom of Transit, Fees and Formalities, and Publication and Administration of Trade Regulations. They lie at the heart of current WTO deliberations on trade facilitation. While much is still under negotiation, Member States' proposals include a long catalogue of measures safeguarding: the publication of applicable rules and procedures (e.g., via the internet); advance notification of any changes to rules and procedures; and the establishment of enquiry points. Member States' proposals also extend to the details concerning: the application of trade procedures, such as the use of advance rulings (e.g., for tariff classifications); efficient appeal mechanisms; the preferential treatment of trusted or authorized traders; and the modernization of the trade and customs infrastructure. The commitment to ongoing review and consultation with business stakeholders appears to be a further theme, among many others, that have been raised in WTO discussions.²²

Figure 1 summarizes some of the key international initiatives, recommendations, and legal instruments commonly associated with trade facilitation. The table expands on a helpful compendium produced by UN/CEFACT and UNCTAD,²³ tying in further analysis produced by Andrew Grainger.²⁴

¹⁹ S. Smith & M. Moosberger, 'IATA e-Freight: Taking the Paper out of Air Cargo', in *The Global Enabling Trade Report 2009*, ed. R.Z. Lawrence, M.D. Hanouz, Qin He & J. Moavenzadeh (Geneva: World Economic Forum, 2009).

²⁰ United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), *Recommendation No. 4 – National Trade Facilitation Bodies' CEFACT* (Geneva: UN, 1974), ECE/TRADE/352; United Nations Conference on Trade and Development (UNCTAD), 'Trade Facilitation Handbook Part One – National Facilitation Bodies: Lessons from Experience' (2006b), UNCTAD/SDTE/TLB/2005/1.

²¹ United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), *Recommendation No. 33: Single Window Recommendation* (Geneva: UN, 2004), ECE/TRADE/352, 37.

²² World Trade Organization (WTO), *supra* n. 1, 2009.

²³ United Nations Centre for Trade Facilitation and Electronic Business and United Nations Conference on Trade and Development (UN/CEFACT and UNCTAD), *Compendium of Trade Facilitation Recommendations* (UN/CEFACT, UN, 2002), ECE/TRADE/279.

²⁴ Grainger, *supra* n. 15, 2007b.

Figure 1. International Trade Facilitation Recommendations and Instruments (Adapted from UN/CEFACT and UNCTAD and Grainger)²⁵

International Trade Facilitation Recommendations and Instruments	
World Trade Organisation (WTO)	Trade Facilitation Specific Articles: GATT Article V (freedom of transit), GATT Article VIII (fees and formalities) and GATT Article X (publication and administration of trade regulations) Customs Valuation: GATT Article VII (technical interpretation covered by the WCO) WTO Agreement on Rules of Origin (technical interpretation of 'non-preferential rules of origin' covered by the WCO)
World Customs Organisation (WCO)	Kyoto Convention for Harmonising Customs Procedures; WCO Harmonised Commodity Code Descriptions and Coding System (HS System); Framework of Standards to Secure and Facilitate Global Trade (SAFE);
United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT)	Rec. N°1 : United Nations Layout Key for Trade Documents; Rec. N°. 2 : Locations of Codes in Trade Documents; Rec. N°. 3 : Code for the Representation of Names of Countries; Rec. N°. 4 : National Trade Facilitation Bodies; Rec. N°. 5 : Abbreviations of INCOTERMS; Rec. N°. 6 : Aligned Invoice Layout Key for International Trade; Rec. N°. 7 : Numerical Representation of Dates, Time and Periods of Time; Rec. N°. 8 : Unique Identification Code Methodology – UNIC; Rec. N°. 9 : Alphabetic Code for the Representation of Currencies; Rec. N°. 10 : Codes for the identification of Ships; Rec. N°. 11 : Documentary Aspects of the Transport of Dangerous Goods; Rec. N°. 12 : Measures to Facilitate Maritime Transport Documents Procedures; Rec. N°. 13 : Facilitation of Identified Legal Problems in Import Clearance Procedures; Rec. N°. 14 : Authentication of Trade Documents by Means Other than Signature; Rec. N°. 15 : Simpler Shipping Marks; Rec. N°. 16 : LOCODE - Code for Trade and Transport Locations; Rec. N°. 17 : PAYTERMS - Abbreviations for Terms of Payment; Rec. N°. 18 : Facilitation Measures Related to International Trade Procedures; Rec. N°. 19 : Code for Modes of Transport; Rec. N°. 20 : Codes for Units of Measure Used in International Trade; Rec. N°. 21 : Codes for Passengers, Types of Cargo, Packages and Packaging Materials; Rec. N°. 22 : Layout Key for Standard Consignment Instructions; Rec. N°. 23 : Freight Cost Code – FCC; Rec. N°. 24 : Trade and Transport Status Codes; Rec. N°. 25 : Use of the UN Electronic Data Interchange for Administration, Commerce and Transport Standard (UN/EDIFACT); Rec. N°. 26 : The Commercial Use of Interchange Agreements for Electronic Data Interchange; Rec. N°. 27 : Preshipment Inspection; Rec. N°. 28 : Codes for Types of Means of Transport; Rec. N°. 31 : Electronic Commerce Agreement; Rec. N°. 32 : E-Commerce Self-Regulatory Instruments (Codes of Conduct); Rec. N°. 33 : Single Window Recommendation
United Nations Conference on Trade and Development (UNCTAD)	ASYCUDA: an open source off-the-shelf computerised customs management system used in more than 70 countries (http://www.asycuda.org)
ICAO and IATA (Air)	IATA e-freight initiative ; ICAO Convention on International Civil Aviation (Annex 9 : Trade Facilitation); "know shipper/known consignee" concept
International Maritime Organisation (IMO)	Convention on Facilitation of International Maritime Traffic (FAL); Safety of Life at Sea Convention (SOLAS); International Ship and Port Facility Security Code (ISPS-Code)
Other International Organisations	UNECE: Working Party 7 looking after agriculture quality standards ; UNECE and IRU: TIR (Road Transit) Convention; ISO : countless product and quality standards; ICC: Incoterms (standardised trading terms used in international trade); ICC: Uniform Customs and Practices for Letters of Credit (UCP); ICS: Standard [shipping] Manifest Report and Recommendation; ICS: Standard Format of Bills of Lading

²⁵ United Nations Centre for Trade Facilitation and Electronic Business and United Nations Conference on Trade and Development (UN/CEFACT and UNCTAD), *supra* n. 23; Grainger, *supra* n. 7, 2007a; Grainger, *supra* n. 15 2007b; A. Grainger, 'Trade Facilitation: A Review (Working Paper)' (Trade Facilitation Consulting Ltd, 2007c).

3. TRADE FACILITATION'S ELEMENTS AND TOPICS

To a large extent, the elements and topics associated with trade facilitation can be derived from the international recommendations just outlined. They are also strongly echoed within the Member States' proposals to the WTO²⁶ but can be found in other multilateral, bilateral, or regional documents, too.²⁷ Unfortunately, although a number of the international organizations have produced handbook or reader-type publications,²⁸ very little analysis has been produced to introduce the elements and topics associated with trade facilitation to the wider academic literature in any structured manner.

The following paragraphs attempt to catalogue the range of key topics into four interdependent elements that constitute the current focus in trade facilitation. This framework builds on earlier work,²⁹ with a selection of illustrative examples to help place the listed trade facilitation topics into context. The four interdependent elements that define trade facilitation are: (1) the simplification and harmonization of applicable rules and procedures; (2) the modernization of trade compliance systems, in particular the sharing of information and lodgement of declarations between business and government stakeholders; (3) the administration and management of trade and customs procedures; and (4) the institutional mechanisms to safeguard the effective implementation of trade facilitation principles and the ongoing commitment to reform.

3.1. THE SIMPLIFICATION AND HARMONIZATION OF APPLICABLE RULES AND PROCEDURES

The key objective here is to reduce the degree of complexity associated with trade and customs procedures. Work in this area often concerns itself with the actual draft of applicable texts (or negotiations concerning the draft of texts). Topical themes include: (a) the harmonization of rules and procedures, (b) the avoidance of duplication, and (c) the accommodation of business practices and ensuring that rules and procedures are operable.

²⁶ WTO, 2009.

²⁷ Asia-Pacific Economic Cooperation (APEC), 'APEC Principles on Trade Facilitation', Meeting of APEC Ministers Responsible for Trade (MRT) (Shanghai, 6–7 Jun. 2001); World Customs Organization (WCO), *supra* n. 6, 2007.

²⁸ United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), *Trade Facilitation Handbook for the Greater Mekong Subregion* (Bangkok: UN, 2002), ST/ESCAP/2224; UNECE (ed.), *Trade Facilitation: The Challenges for Growth and Development* (Geneva: United Nations, 2003); L. D. Wulf & J. B. Sokol (eds), *Customs Modernization Handbook* (Washington: World Bank, 2005); V. Mathur (ed.), *Reforming the Regulatory Procedures for Import and Export: Guide for Practitioners* (Washington: World Bank Group, 2006); T. Ujji & ADB, 'Trade Facilitation', ERD Working Paper Series, no. 78 (Manila, Philippines: Asian Development Bank, 2006); United Nations Conference on Trade and Development (UNCTAD), 'Trade Facilitation Handbook Part II: Technical Notes on Essential Trade Facilitation Measures' (2006a), UNCTAD/SDTE/TLB/2005/2; United Nations Conference on Trade and Development (UNCTAD), *supra* n. 20, 2006b.

²⁹ Grainger, *supra* n. 15, 2007b; Grainger, *supra* n. 25, 2007c.

3.1.1. *The Harmonization of Rules and Procedures*

The harmonization of trade and customs procedures with international norms and conventions ensures a degree of uniformity, consistency, familiarity, and compatibility between trading nations. Examples include the WCO's Kyoto Customs Convention, the UN Recommendations on the Transport of Dangerous Goods, the TIR (Transports Internationaux Routiers (International Road Transport) [Transit] Convention, among many more. At the national level, harmonization also enables consistency in the application of controls between different executive agencies. For example, in many countries non-customs procedures – such as the collection of trade statistics, the collection of value-added tax, the enforcement of phytosanitary measures, or marketing standards – are placed under the umbrella of Customs' executive powers, thus enabling a more coordinated level of control. However, in order to be effective such practice usually requires extensive changes to governing legislation. Without such changes, control regimes are often not compatible.

3.1.2. *The Avoidance of Duplication*

At the international level, this trade facilitation theme often concerns itself with establishing joint ownership for controls. For executive enforcement agencies, this may relate to instruments that enable bilateral or international investigations, or provide a framework for sharing administrative and control responsibilities. Topics might include negotiations about formally recognizing: one country's export controls (or part of) in lieu of the other country's import controls; or one country's certification regime (e.g., in the area of security, origin, or veterinary and phytosanitary measures) so that controls do not need to be repeated in full upon import.

At the national level, examples might include the coordinating efforts (be it formal or informal) between government agencies to enforce controls collaboratively³⁰ and share resources such as staff and inspection facilities. Efforts may also extend to the formal or informal recognition of those controls conducted by private sector stakeholders irrespective of any official control specifications, for example, those applied in the context of quality control or commercial due diligence.

3.1.3. *Accommodate Business Practices*

Again, there are many examples, which include the acceptance of commercial documents, such as the commercial invoice or the shipping manifest, in lieu of official documents. The so-called 'simplified procedures' that allow compliance operations to be performed in a more conducive manner – for example, inland clearance (away from the ports) or periodic declarations rather than on a consignment by consignment basis – feature strongly, too.

³⁰ Sometimes referred to as the 'the one-stop-shop concept'.

Another objective is to ensure that enforced procedures are operable. It is not uncommon for legislatively set rules and procedures to be incompatible with local operational practices. For example, a procedure that mandates the port operator to deliver goods to a customs inspection facility will only work in an environment where the port operator has control over the use of cargo handling equipment; at many ports, such as Roll-On/Roll-Off (RO/RO) and ferry ports, this may not be the case. A degree of flexibility and supporting institutional mechanisms to make rules and procedures fit for purpose is often required.

3.2. THE MODERNIZATION OF TRADE COMPLIANCE SYSTEMS

Much of the work here is focused on speeding up the submission and processing of trade and customs declarations operations, especially through use of modern information technology. Associated topics tend to focus on: (a) the recommendation of solutions; (b) the development of enabling standards; and (c) the sharing of experiences.

3.2.1. *Solutions*

One specific solution dominating the trade facilitation agenda is the Single Window concept, which can be defined 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.³¹ As such, it radically streamlines the interface between business and government stakeholders, yielding extensive operational benefits, efficiency gains, and cost-savings.³²

Other propagated solutions range from so-called Port Inventory Systems (enabling information handling at speeds that are comparable or faster than the port operator's physical handling capabilities) to electronic customs systems (speeding up and automating much of the customs administration's processing activities) and information portals (ensuring that traders and operators always have access to the most up-to-date information). Noteworthy is that some of the current trade facilitation-motivated modernization projects, especially those with regional ambitions such as the European Union (EU) electronic customs initiative (TAXUD/477/2004) or Association of Southeast Asian Nations (ASEAN's) commitment to interoperable single window systems,³³ are very ambitious with total implementation costs likely to be in the order of hundreds of millions of dollars.

³¹ United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), *supra* n. 21, 2004, 37.

³² H.-H. Teo et al., 'Organizational Transformation Using Electronic Data Interchange: The Case of TradeNet in Singapore', *Journal of Management Information Systems* 13, no. 4 (1997): 139; L.D. Wulf, 'Tradenet in Ghana: Best Practice of the Use of Information Technology', Background Paper Prepared for the World Development Report 2005 (World Bank, 2004); United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), *supra* n. 15, 2005; World Customs Organization (WCO), *Single Window-WCO Information Sheets on Key Trade Facilitation Measures* (Brussels: WCO, 2008).

³³ ASEAN, 'Agreement to Establish and Implement the ASEAN Single Window, Kuala Lumpur, 9 December 2005', <www.aseansec.org/18005.htm>, 15 Apr. 2010.

3.2.2. *Standardization*

Standardization-type activities are particularly well established within trade facilitation circles, especially at organizations like UN/CEFACT or the WCO. The work is primarily motivated by the desire to reduce transaction costs that might arise from incompatible electronic data messages, that is, the protocols and formats used to communicate information between computer systems. Work often also involves reaching international agreements on the types of data necessary to control trade³⁴ as well as on how specific information should be coded (e.g., airports are universally described by reference to three letters³⁵ and goods are described by reference to the WCO's Harmonized System).

Other work traditionally associated with trade facilitation is the standardization of paper documents and their format.³⁶ Compliance ensures familiarity and consistency irrespective of location, language, or control regime; it also reduces the risk of making mistakes and enables software developers to market commercial off-the-shelf trade document management solutions.

3.2.3. *Sharing of Experiences*

Much discourse, especially within international organizations that have a capacity building remit, concerns itself with the sharing of implementation experiences. Much is published on the Global Facilitation Partnership for Transportation and Trade website (www.gttfp.org). Occasionally, the exchange of experiences also flows over into published conference proceedings and derived reader-type publications.³⁷ Articles within the practitioner section of the International Network of Customs Universities (INCU)-sponsored *World Customs Journal* also seek to help fill this information gap. However, an often neglected area is the considerable potential for the joint or collaborative development of systems and public electronic trade infrastructure. Generic problems and generic solutions lend themselves to common or shared solutions. With the notable exception of UNCTAD's ASYCUDA customs software, such open source initiatives remain surprisingly rare.

3.3. ADMINISTRATION AND MANAGEMENT

There are a wide range of generic ideas about how the administration and management of trade procedures can be improved. Many are based on international recommendations but basically resonate around a handful of key ideas and principles that can be categorized into: (a) service standards and (b) management principles, including mechanisms to induce cooperation between stakeholders.

³⁴ World Customs Organization (WCO), *The WCO Customs Data Model [Version 2.0]* (Brussels: WCO, 2006).

³⁵ For example, 'LHR' would stand for London Heathrow.

³⁶ For example, United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT). *supra* n. 18.

³⁷ UNECE, *supra* n. 28.

3.3.1. *Service Standards*

Ideas here relate to public service provisions, such as commitments to: always publish and make available relevant rules and procedures; keep the published customs tariff up to date and make it easily accessible (e.g., online); provide helpline or information centre-type services; and enable traders to apply for advance binding ruling, such as for a tariff classification.³⁸ Commitments to the setting up of fast track appeal mechanism are often a feature, too. Appeal mechanisms might include so-called ‘departmental reviews’ (express rulings by technical experts within the department that are able to overturn decisions made by officers on the ground) or come in the shape of independent tribunals and specialist courts. Service standards-type discussions also often extend to time-release measures, the lengths of queues at inspection facilities, and working hours – the latter being particularly significant where cargo arrives at night and needs to be cleared before the morning.

3.3.2. *Management Principles, Including Collaborative Mechanism*

There are a range of generic trade facilitation ideas that specifically focus on how trade and customs procedures should be applied and managed. One guiding principle is that applicable rules and procedures should be proportionate to the risk against which they seek to protect. For example, in view of the low customs tariffs prevailing in most developed countries, traders often argue that the regulatory burden associated with actually paying customs duties (or deferring them) is disproportionate. Anecdotal evidence often suggests that many companies, in response to the perceived bureaucratic burden, actually forfeit preferential duty treatment or simplified customs procedures.

Another key management principle is the use of risk management techniques.³⁹ The application of risk management holds that controls and checks should be targeted, refocusing the control effort on suspicious movements while freeing up the legitimate trade from regulatory burden. Rather than enforcing blanket controls at set inspection quotas (e.g., 100%, 50%, or 5% of all traffic), control levels are set in proportion to the perceived degree of risk. Often risk-based control regimes are tied to official authorizations, conferring privileges to those low-risk operators that have a good compliance record. Privileges might include access to preferential and fast-track treatment, simplified procedures, or procedures with fiscal benefits (e.g., customs warehousing, duty deferment, duty drawback, and similar procedures).⁴⁰ Access to such incentives as a reward for virtuous business behaviour plays a particularly strong theme in recent supply chain security-type programmes and formal partnership agreements. Examples include the Authorized Economic

³⁸ Sometimes also referred to as a Binding Tariff Information (BTI).

³⁹ For example, A.-M. Geourjon & B. Laporte, ‘Risk Management for Targeting Customs Controls in Developing Countries: A Risky Venture for Revenue Performance?’, *Public Administration and Development* 25, no. 2 (2005): 105–113; D. Widdowson, ‘Managing Risk in the Customs Context’, in ed. Wulf & Sokol, *supra* n. 28, 2005, 91–99.

⁴⁰ Confusingly, some customs officers occasionally refer to these measures as ‘trade facilitations’, which is not quite the same as the concept of ‘trade facilitation’ (without the ‘s’) discussed in this paper.

Operator (AEO) concept or the USA's Customs and Trade Partnership against Terrorism (CTPAT).⁴¹

Related to the risk management principle is the *pareto principle* whereby a very small minority of operators is responsible for the majority of declarations (e.g., postal services, express carriers, large shipping lines, and freight forwarders). Unfortunately, there is little published research, but anecdotal evidence suggests that ratios of 5/95 or even 3/97 – that is, 3% of the trader population is responsible for 97% of the declarations submitted – are not unusual. Thus, a smart enforcement strategy is to encourage traders with high volumes to internalize regulatory set control objectives in exchange for additional operational privileges and low-risk scoring – or even the grant of arms-length control arrangement, for example, in the form of minimal customs interference and a very high degree of operational autonomy.

In addition to formal collaborative arrangements, such as in the area of supply chain security or authorizations, the use of memoranda of understanding (MoUs) can be an alternative – especially in areas where formalized legislation might be inappropriate or too time consuming and resource intensive to bring to life. To give one example, it is not uncommon for MoUs to be drawn up between enforcement agencies and larger operators or industry associations in campaigns against organized crime. Examples include arrangements for sharing intelligence and providing 'tip-offs' as well as voluntary security arrangements.

3.4. INSTITUTIONAL MECHANISMS AND TOOLS

Here, the trade facilitation discourse recognizes the diversity of private sector interests and requirements. Capturing them in order to optimize trade facilitation solutions is seldom straightforward. Generic tools and institutional mechanisms frequently recommended are so-called PRO (for PROcedures) committees⁴² as well as departmental consultation vehicles (i.e., operated by a government department enforcing the governing rules and procedures). Other formal and informal consultation approaches include open consultations (e.g., published in a public gazette) as well as informal consultation (e.g., in the form of regular breakfast meetings with key stakeholders). In addition to the gathering of reform requirements and identifying operational frustrations in practice, such stakeholder engagement also help gain insight into the more detailed facets of operational practices, as well as ensure that reform activities are pursued in a coordinated manner.⁴³

One specific tool for agreeing scope for reform is the draft of a Blueprint (or White-paper) document, which allows government departments and their executive agencies to agree on a plan about their vision for the future form and shape of the trade environment.

⁴¹ US Customs & Border Protection, *Securing the Global Supply Chain: Customs-Trade Partnership against Terrorism (CTPAT) Strategic Plan* (US Customs & Border Protection, 2004); World Customs Organization (WCO), *supra* n. 6, 2007.

⁴² United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), *supra* n. 20, 1974; United Nations Conference on Trade and Development (UNCTAD), *supra* n. 20.

⁴³ A. Grainger, 'The Role of the Private Sector in Supporting Border Management Reform', in *Border Management Modernization: A Practical Guide for Reformers* (Washington: World Bank, 2010).

Blueprint-type documents also enable private sector stakeholders to contribute valuable input about operability, costs, and benefits at the earliest possible stage.⁴⁴

Trade facilitation-specific assessment tools often play a significant feature in trade facilitation implementation programmes, too. Examples of assessment tools produced or commissioned by international organizations include: the UNESCAP's 'Trade Facilitation Framework: A Guiding Tool';⁴⁵ the trade facilitation toolkits produced by John Raven and published by the World Bank;⁴⁶ and Articles V, VIII, and X GATT self-assessment guide produced by David Widdowson with the support of the World Bank.⁴⁷ Unfortunately, findings made through use of these tools are seldom placed into the public domain. The one notable exception are the Diagnostic Trade Integration Studies (DTIS) accessible via the World Bank website⁴⁸ and the Integrated Framework facility.⁴⁹

4. EVALUATING THE COMPLIANCE BURDEN

Subsequent to the 1998 WTO ministerial, much of the trade facilitation-specific research has been focused on economic modelling to highlight the potential gains that can be derived from reducing trade transaction costs. Much of this early work, though not exclusively, was produced by international institutions and their employees or consultants.

For instance, the OECD,⁵⁰ using a Global Trade Analysis Project (GTAP) database, calculate that the economic prize of trade facilitation can be quite significant and is worth up to USD 43 billion worldwide for each 1% reduction in trade-related transaction costs. Similar calculations emphasizing economic gains were made by John Wilson et al.⁵¹ Using gravity models, they calculated that, if APEC members who perform below average on trade facilitation proxy indices were able to improve their performance to half the APEC average, intra-APEC trade could increase by a staggering USD 254 billion and raise average gross domestic product (GDP) for the APEC region by 4.3%. Later, they used a similar methodology but broadened the focus from APEC to a representative mix of seventy-five countries and calculated that the total gain in trade flow in manufacturing is worth USD 377 billion.⁵²

⁴⁴ For example, HM Revenue and Customs (HMRC), *A Blueprint for the Future of Customs in the UK (September 2009)* (HM Revenue and Customs).

⁴⁵ United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), *ESCAP Trade Facilitation Framework: A Guiding Tool* (Bangkok: UN, 2004), ST/ESCAP/2327.

⁴⁶ J. Raven, 'Trade and Transport Facilitation: A Toolkit for Audit, Analysis and Remedial Action', World Bank Discussion Paper, 0259-210X; no. 427 (Washington: World Bank, 2001); J. Raven, *A Trade and Transport Facilitation Toolkit: Audit, Analysis and Remedial Action* (Washington: World Bank, 2005).

⁴⁷ D. Widdowson & World Bank, 'WTO Negotiations on Trade Facilitation Self-assessment Guide. Negotiating Group on Trade Facilitation' (WTO, 12 Apr. 2007), TN/TF/W/143.

⁴⁸ <<http://go.worldbank.org/ULW8UUZUT0>>.

⁴⁹ <www.integratedframework.org/>.

⁵⁰ Organisation for Economic Co-operation and Development (OECD), *supra* n. 12, 2003.

⁵¹ J.S. Wilson et al., 'Trade Facilitation and Economic Development: A New Approach to Quantifying the Impact', *World Bank Economic Review* 17, no. 3 (2003): 367-389.

⁵² J.S. Wilson et al., 'Assessing the Potential Benefit of Trade Facilitation: A Global Perspective', Policy Research Working Papers (World Bank, 2004), WPS 3224.

Reviewing earlier literature and reports on trade facilitation, the OECD⁵³ estimates trade transaction costs to lie between 2% and 15% of the value of imported goods. Studies referenced by the OECD in their review include: United States' National Council on International Trade Development (US-NCITD),⁵⁴ Swedish Trade Procedures Council (SWEPRO),⁵⁵ Ernest and Whinney,⁵⁶ European Commission,⁵⁷ UNCTAD,⁵⁸ Ministry of Economics Trade and Industry (METI),⁵⁹ Haralambides and Londoño-Kent,⁶⁰ and Japan External Trade Organization (JETRO).⁶¹ Unfortunately, as the OECD concludes, the data from these studies are not comparable as they vary in methodology, time frames, country samples, and the variables used to assess trade transaction costs. Focusing more on the value of time, David Hummels⁶² suggests in his model that for manufactured goods each day saved in travel is worth an average of 0.8% of its value.

Unfortunately, there is very little substantiated research that looks at quantifying trade transaction costs other than through indirect economic models. Even larger cost-benefit analyses commissioned by government-sponsored organizations struggle in quantifying benefits in what is essentially a very complex environment with many different actors and interests.⁶³ However, there are a few reports and papers that do provide some illustrative findings and help shed some insight into the more operational nature of trade transaction costs. For example, a UN study referred to by OECD⁶⁴ reports that over 200 data elements are typically requested in a trade transaction, of which 60–70% are re-keyed at least once while 15% are re-typed up to thirty times. SITPRO (Simplifying International Trade Procedures; the former UK Trade Facilitation Agency), in an unpublished study, found that the export of milk powder from the United Kingdom to a North African country can easily involve as many as twenty-nine different parties and requires twenty-one different regulatory declarations, official certificates, and transport and insurance documents, often with multiple copies in different languages.⁶⁵ A similar example of complexity, with explicit reference to the potential for a trade facilitation agreement, was also found

⁵³ Organisation for Economic Co-operation and Development (OECD), *supra* n. 12, 2001, 2003.

⁵⁴ US-NCITD, 'Paperwork or Profits in International Trade. United States National Committee on International Trade Documentation' (NCITD, 1971).

⁵⁵ Swedish Trade Procedures Council (SWEPRO), *Data Interchange in International Trade* (Stockholm, 1985).

⁵⁶ Ernst & Whinney, *The Cost of Non-Europe: Border Related Controls and Administrative Formalities* (European Commission, EU, 1987).

⁵⁷ European Commission, 'COST 306 Final Report, 1998' (1989).

⁵⁸ United Nations Conference on Trade and Development (UNCTAD), *Fact Sheet 5* (Geneva: UN International Symposium on Trade Efficiency, 17–21 Oct. 1994).

⁵⁹ Ministry of Economics Trade and Industry (METI), 'Report on Asia-Scale Industrial Structure Policies' (Japanese Ministry of Economics Trade and Industry, METI, 1998).

⁶⁰ H. Haralambides & P. Londoño-Kent, *Impediments to Free Trade: The Case of Trucking and NAFTA in the US-Mexican Border*, *Mimeo* (Rotterdam: Erasmus University, 2002).

⁶¹ Japan External Trade Organization (JETRO), 'Report on Market Access to Japan: Single Windows for Port and Trade Related Procedures' (Tokyo: Japan External Trade Organization, 2002).

⁶² D. Hummels, 'Time as a Trade Barrier', GTAP Working Papers, no. 1152 (West Lafayette: Purdue University, 2001).

⁶³ International Trade Data System (ITDS Office), *Cost/Benefit Analysis for the International Trade Data System* (Washington: International Trade Data System Office, ITDS, 1998); G. Linington, *International Trade Single Window and Potential Benefits to UK Business* (London: SITPRO, 2005).

⁶⁴ Organisation for Economic Co-operation and Development (OECD), *supra* n. 12, 2001.

⁶⁵ For an illustration, see C. Clark, *BPAWG Reference Model of the International Supply Chain* (2003), TBG 14, UN/CEFACT. UN/CEFACT/BPA/BP044.

by Andrew Grainger⁶⁶ in a study examining the export of beef and poultry from Mercosur into the EU.

Using the operational lens, direct costs associated with trade compliance occur immediately when collecting, producing, transmitting, and processing required information and documents. Additional charges and fees that add to the burden include the expense of setting up and financing customs bonds and guarantees, laboratory testing and examination expenses, inspection fees, stamp charges, service fees levied by shipping lines and banks, labour and handling charges to deliver goods to inspection facilities and to present goods, storage charges, and possible out-of-hours surcharges.

Further direct costs are also incurred when traders engage the services of third party intermediaries for a service fee. These include customs brokers (a licensed profession in many countries), information technology (IT) vendors who offer data management and declaration services, and freight forwarders and logistics providers who offer documentation services, customs compliance, and suspensory regimes (e.g., bonded warehousing). By contrast, indirect costs result from: delay at the border; uncertainty in the environment; and most of all, the loss of business and opportunities. Typically, these can be associated with inadequate or contradictory documentation, congestion at inspection facilities, lack of staff (especially outside normal working hours), and unforeseen emergency measures. They also include any additional handling, storage, and demurrage charges associated with delay.

5. A COMPLEX ENVIRONMENT

Although trade facilitation seeks to overcome the operational frustrations associated with trade and customs procedures, much of the current trade facilitation debate seems to be orientated from the top-down. Its premise starts with prescriptive international recommendations or generic concepts and ideas, as reviewed earlier, about how operational frustrations can be overcome. However, given that trade facilitation as a topic has been around for quite some time, a legitimate question worth asking is: why has it taken so long for trade facilitation to establish itself as a mainstream agenda item; especially as the case for trade facilitation – the desire to cut red tape and reduce wasteful trade compliance cost – is self-evident.

The devil, like so often, is in the detail. The difficulties associated with implementing trade facilitation can probably be best explained in the context of the trade environment. It is a complex construct, involving many stakeholders (Figure 2). The list of potential procedures can be formidable (Figure 3) and, when examined in detail, considerably larger than what the World Bank's Doing Business Index⁶⁷ might suggest. For example, Andrew Grainger⁶⁸ counts more than sixty procedures in the United Kingdom alone. Moreover,

⁶⁶ A. Grainger, 'A Case Study Focusing on Trade Procedures as Applicable to the EU Import of Beef and Poultry Products (Products of Animal Origin)', in *Trade Sustainability Impact Assessment (SLA) of the Association Agreement under Negotiation between the European Community and Mercosur: Sector Study for Trade Facilitation*, ed. C. George et al. (Brussels: European Commission, 2009).

⁶⁷ World Bank, *supra* n. 9, 2010a.

⁶⁸ Grainger, *supra* n. 7, 2007a.

international supply chain arrangements are likely to vary significantly from one operation to the next. Often the importer or exporter will not know the exact detail of all applicable operations, let alone their costs.

Figure 2. Stakeholders and Actors in the Trade Environment

<p>Traders Small, large, importers, exports, experienced, in-experienced, agents (direct or indirect representatives)</p> <p>Intermediaries <u>Transport and related services:</u> Shipping Lines, Non Vessel Owning Common Carrier (NVOCC), Airlines, Charter Operators, Trucking and Haulage Companies, Railway Companies, Logistics Service Providers, Freight Forwarders, Customs Brokers, Banks and Finance Companies, Insurance Companies <u>Facilities and infrastructure:</u> Seaports, Airports, Rail-terminals, Inland Container Ports, Port Operators and Stevedores, Cargo Handlers and Handling Agents, Warehouse Operators, Transit-shed Operators, IT Service Providers</p> <p>Government Revenue and Customs; Transport Ministry; Port Health Authorities; Ministry for Food and Agriculture; Marketing Boards; Trading Standards Bodies; Ministry for Trade and Industry; Civil Aviation Authority; Health and Safety Executive; Immigration Services; Finance Ministry; Ministry for Internal Affairs; Quarantine Inspection Service; Phytosanitary Inspection Services; Police; Highway Agency; 3rd Country Representatives; Contracted inspection and testing companies</p>
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Figure 3. Regulatory Categories and Examples

Regulatory Category	Examples of related activity
Revenue Collection	Collection of Customs duties, excise duties and other indirect taxes; payment of duties and fees; management of bonds and other financial securities
Safety and Security	Security and anti smuggling controls; dangerous goods; vehicle checks; immigration and visa formalities; export licences
Environment and Health	Phytosanitary, veterinary and hygiene controls; health and safety measures; CITES controls; ships' waste
Consumer Protection	Product testing; labelling; conformity checks with marketing standards (e.g. fruit and vegetables)
Trade Policy	Administration of Quota restrictions; Agriculture refunds

Moreover, depending on the Incoterms⁶⁹ used (e.g., ExWorks, Delivered Duty Paid, Carriage and Insurance Paid To, etc.), responsibility lies seldom with one party alone. Compliance costs are likely to be hidden within fixed costs overheads, such as IT and accounting systems, or fragmented across departments and organizational boundaries. Although the supply chain management and logistics literature is very familiar with examining the complexities among interacting firms,⁷⁰ with very few exceptions,⁷¹ the logistics and supply chain management literature has not yet applied itself to the trade compliance problem at the interface with government executive agencies.

6. OBSTACLES TO BORDER MANAGEMENT REFORM

In view of the overall environmental complexity, obstacles to any trade facilitation initiative, as most practitioners are likely to attest, can be many. They typically revolve around one or several of the following three issues: conflicting interests among stakeholders, lack of knowledge, and institutional limitations.⁷²

Although there is a collective interest in bringing down the cost of trade, improve efficiency, and increase overall competitiveness, the interests of individual actors are unlikely to be aligned. Frequently, as can be observed in the exchanges (published and unpublished) between business and government stakeholders, interests are also conflicting. Unaligned or conflicting interests tend to be found between: businesses with different types of operational requirements and capabilities (e.g., small versus large ports or airports versus seaports); business interests and the interests of individual executive agencies (e.g., between control and compliance); competing government departments (e.g., Department for Transport versus Customs versus Immigration); competing policy priorities when bidding for budgets (e.g., transport, customs, health, or education); and between preferences for protectionists and liberal trade policies. Moreover, it is not uncommon to observe rent-seeking behaviour and vested interests. One person's simplification can easily become another person's redundancy.

Institutional limitations can also form significant obstacles to the implementation of trade facilitation. At their core lies a conflict between day-to-day business operations and the institutional mechanisms that govern the trade environment. While the former is very

⁶⁹ ICC, *Incoterms 2010: ICC Official Rules for the Interpretation of Trade Terms* (Paris: International Chamber of Commerce, 2010).

⁷⁰ C.D.J. Waters, *Global Logistics: New Directions in Supply Chain Management* (London: Kogan Page, 2007).

⁷¹ C.M. Jones & M.R. Crum, 'The U.S. Customs Modernization Act and Informed Compliance Act: Implications for the Logistics Pipeline', *International Journal of Logistics Management* 6, no. 2 (1995): 67–81; T. Appels & H.S. de Swielande, 'Rolling Back the Frontiers: The Customs Clearance Revolution', *International Journal of Logistics Management* 9, no. 1 (1998): 111–118; M.A. Haughton & R. Desmeules, 'Recent Reforms in Customs Administration', *International Journal of Logistics Management* 12, no. 1 (2001): 65–82; E. Verwaal & B. Donkers, 'Firm Size and Export Intensity: Solving an Empirical Puzzle', *Journal of International Business Studies* 33, no. 3 (2002): 603–613; E. Verwaal & B. Donkers, 'Customs-Related Transaction Costs, Firm Size and International Trade Intensity', *Small Business Economics* 21, no. 3 (2003): 257–271; C. Sheu et al., 'A Voluntary Logistics Security Program and International Supply Chain Partnership', *Supply Chain Management: An International Journal* 11, no. 4 (2006): 363–374; Grainger, *supra* n. 15, 2007b.

⁷² A. Grainger, 'Customs and Trade Facilitation: From Concepts to Implementation', *World Customs Journal* 2, no. 1 (2008a): 17–30.

fluid and can change from one transaction to the next, the latter is embedded within the wider regulatory regime and takes time to amend. Legacy arrangements can be equally difficult. Changes – for example, through the introduction of new control procedures, amendments to declaration documents, or changes to electronic systems – can be costly to implement and stakeholders need to be convinced that the costs for migration from the existing status quo are justified. Another example of institutional limitations may be found in the way governments procure their IT services. Trade facilitation projects like the single window,⁷³ which seek to reduce trade transaction by integrating public IT infrastructure, can potentially stand at odds with preferential supplier agreements put in place by each of the affected government agencies. For example, customs may have one IT supplier with its preferred technology and business architecture while the port authority or quarantine service might contract with other suppliers who base their electronic solutions on different technologies and business architectures. Institutional difficulties might also be found in the geographical distance between head office and the borders or ports. As argued in this article, much of trade facilitation is about fixing operational problems. Those executive officers with direct operational experience at the borders may not necessarily be the same individuals who help shape policy in the capitals. Much of the detail required to understand trade facilitation-type problems can easily go missing.

The lack of knowledge and awareness can be a further significant obstacle to regulatory improvements. International supply chains tend to be complex arrangements and vary from one company to the next. Few individuals in business and policy circles are able to take an umbrella view and expand analysis beyond the confines of their own organizations. Precious little research has yet been attempted, which takes a system-wide view of the operational aspects of the cross-border environment in order to help establish areas for improvements. Subsequently, policy makers have few places to turn to other than the international recommendation outlined earlier. While dedicated trade facilitation committees can be of significant help, their resources are usually very limited. For example, SITPRO – the former UK trade facilitation agency (and probably one of the largest national trade facilitation bodies) – had an annual budget of less than GBP 1 million.⁷⁴

7. CONCLUSION

This review has covered considerable ground, including an overview of policy drivers, definitions, the international efforts shaping the trade facilitation discourse, as well as a review of key elements and topics that lie within. This article also provides an express review of current research, which is largely biased towards economic modelling, and highlights the challenges and obstacles faced by trade facilitation proponents.

⁷³ United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT), *supra* n. 21, 2004, 37.

⁷⁴ SITPRO, *Report and Accounts for the Year Ended 31 March 2009* (London, SITPRO, 2009), <www.sitpro.org.uk/about/management/accounts09.pdf>.

At present, as evidenced, for example, in WTO discussions, there is considerable reliance on international recommendations and generic ideas or topics that are not necessarily grounded in any substantiated operations-focused research. To some extent, one can also question whether current institutions working in the wider area of trade policy have the required operational experience and insight. Certainly, one area that raises concern in trade policy circles is the question of how to enforce any trade facilitation-type commitments. At present, there is much reliance on emphasizing the unilateral benefits derived from trade facilitation, such as better utilization of inspection resources, increased business competitiveness, and tighter control. Binding commitments of substance, without an institutional framework that is able to independently assess and verify the quality of a nation's trade environment, will be difficult to implement. As we move towards the non-tariff barriers, the ability to evaluate and assess operational variables is an issue of concern and relevance.

A further question worth addressing is whether current institutions are able to evaluate and interpret operational frustrations adequately. Moreover, given that business operations tend to be very fluid and can change from one day to the next, are current institutions capable and flexible enough to respond to business stakeholders' concerns? While many countries do have dedicated trade facilitation committees, they currently tend to play a very low-key role with few, if any, direct agenda setting powers. Perhaps, this needs to be revisited in light of the considerable momentum driving trade facilitation forward.

Irrespective of the above, the absence of any significant operations-focused bottom-up-type body of research is startling. There certainly appears to be considerable opportunity for the logistics and supply chain management community to apply themselves to this area. However, the interdependencies with the technical details surrounding legislatively defined rules and procedures as well as the technical detail associated with the development of electronic solutions and setting of standards suggest an interdisciplinary approach. The diversity of stakeholder interests when seeking to influence optimal solutions and the form and shape of the governing trade environment further highlights the interdisciplinary nature of the subject. As Tom Butterly⁷⁵ rightly asserts, trade facilitation is at once a political, economic, business, administrative, technical, and technological issue. Given the significant budgets – often hundreds of millions – allocated to trade facilitation-type projects (be it in the context of aid-for-trade, customs modernization, national single window projects, or supply chain security), it certainly is an urgent research agenda that deserves addressing.

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