

Customs management in multinational companies

Andrew Grainger¹

Abstract

What do senior customs managers within multinational companies do? By answering this seemingly simple question this paper sheds light on an overlooked but significant business function with immediate relevance to logistics and supply chain management practice. The paper draws on a series of long interviews with key informants at nine multinational companies. Their combined annual turnover is in excess of \$400 billion. Multiple feedback cycles enabled robust analysis and factual accuracy. A review of relevant customs law, procedures and literature gives the necessary context. Findings show that senior customs managers are involved in three interdependent areas of activity: logistics support, supply chain management and regulatory compliance. However, there is considerable diversity in practice and managers are often drawn between allocating time and effort to reducing costs, safeguarding compliance and developing strategic capabilities.

The identified customs management practices provide an opportunity for relevant staff in companies to identify and reflect on scope for improvements and to take more informed trade-off decisions about the allocated time and effort. A more informed understanding of the customs management practices also has utility for trade and customs policy makers tasked with reducing the transaction costs between businesses and border agencies—especially in the context of trade facilitation. Last, but not least, the paper may also serve as a stepping stone for further academic enquiry that extends the link between businesses and Customs agencies.

Introduction

At every port and border, globally operating companies and their supply chains are exposed to customs controls and related trade procedures. Compliance requirements are frequently equated with unnecessary red tape and the transaction costs between businesses and the border agencies are known to inhibit efficient logistics and supply chain management operations. The subsequent urgency for reform is highlighted by numerous international organisations. These include the World Economic Forum (WEF) (2015), the Organisation for Economic Co-operation and Development (OECD) (2009), the United Nations Commission for Trade and Development (UNCTAD) (2006a, 2006b) and the World Bank (De Wulf & Sokol 2005; McLinden et al. 2010). Pressure to reform has been accelerated by the World Trade Organization (WTO) and its recent Trade Facilitation Agreement (TFA) (WTO 2014), which aims to reduce trade and customs-related costs. It also places the impact of trade and customs procedures on businesses at the centre of trade and customs policy.

As is highlighted in the WTO's *World Trade Report 2015*, the TFA can generate significant benefits (WTO 2015). The OECD calculates that the WTO TFA could reduce the worldwide cost for internationally trading businesses by between 12.5 per cent and 17.5 per cent (OECD 2015). Given such favourable numbers it should not come as a surprise that governments across the world are making substantial investments to modernise the trade and customs environment (see McLinden et al. 2010). The subsequent challenge of understanding how trade facilitation policy affects corporate decision-making within international supply chains is highlighted by Mann (2012).

Developing an understanding of how customs issues relate to businesses in international supply chains is important. Indeed, as highlighted by Hameri and Hintsa (2009), customs issues are one of the key drivers to anticipated changes in international cross-border supply chains. Yet, the literature of Customs and their significance for businesses and supply chains is still young—much of it championed by this journal, especially with regard to the administration of customs. But how are customs issues managed within companies? What is it that people in charge of meeting Customs' expectations do? How do they go about it? By shining a light on customs professionals within multinational companies this paper seeks to help fill that gap and, importantly, help provide a starting point for further academic enquiry.

The findings presented are based on interviews with key informants in nine multinational companies from a cross section of industries. Their combined annual turnover in 2013 was in excess of \$400 billion. They represent an example of companies that are responsible for the bulk of global trade.

This paper starts with a brief overview of customs procedures in order to provide the necessary context, especially for readers less familiar with the technical details—the initiated may gloss over that section. A review of the emerging customs literature follows, before going into detail about the methods, research findings and conclusions that expand upon the paper's relevance for companies, research and policy making.

A brief review of customs laws and procedures

Although the scope and institutional arrangements can vary somewhat from one country to the next (WCO 2015b), the main task for Customs is to collect import taxes and enforce trade prohibitions and restrictions. A quick glance at dedicated customs law books about customs procedures in any given country will quickly show how technical the topic can be (for example, for the EU: Lux 2003; Lyons 2008; Massimo 2012; Witte & Wolffgang 2012).

Ports and borders are the first and last point within the confines of national territories where authorities can exercise direct powers over the movement of goods. Once goods pass this point, it is much more difficult for the authorities to stop the goods when needed. The administration tasked with controlling and examining goods coming in and out of any given country is Customs. Though, depending on the specific arrangement in any given country, Customs may cooperate closely with other border agencies. Globally operating businesses are obliged to notify the customs administration and declare their shipments accordingly. Failure to comply with applicable customs legislations can lead to fines and custodial sentences (BBC 2012). In some countries customs law requires importers to use qualified licensed customs brokers. In other countries their use is voluntary or not required.

Customs-administrated import taxes inevitably include import duties, but can also extend to import-related value added taxes (VAT), excise duties and other levies. In a few countries export duties may also apply. Where transport routes involve several countries (for example, to landlocked countries or via global logistics hubs) customs transit procedures come into play. Furthermore, companies often rely upon the customs administration to provide proof of export so that these can be exempted (or zero-rated) from VAT² and excise duties, or apply for any other export refunds.

Physical customs inspections are usually enforced at the ports and borders, and are guided by risk-management principles that favour those businesses with a good compliance record (Widdowson 2005; Han & Ireland 2014). Electronic or paper customs declarations must be submitted to dedicated customs offices before goods can be cleared at the ports and borders. Often, customs declarations are also used for the collection of official trade statistics. The customs offices may not necessarily be located at the port or border. In many countries the administration of customs procedures is highly automated and reliant on electronic customs computers and supporting EDI or web-based data exchanges (Teo, Tan & Wei 1997; Appels & Struye de Swielande 1998; Raus, Flügge & Boutellier 2009; ASYCUDA 2016).

The procedures for declaring goods to customs administrations tend to be based on international instruments. The most relevant are the WTO's General Agreement on Tariffs and Trade (GATT 1994) and the WCO's Kyoto [Customs] Convention (WCO 1999). However, practices can vary significantly from one country to the next, sometimes even from one port or border crossing to the next. Customs officers are guided by their country's respective customs legislation and administrative guidelines.

Described in the most basic of terms, the assessment of customs duties is dependent on the correct tariff classification (WCO 2016) and the country's (or Customs Union's) applicable customs tariff (European Commission 2016; USITC 2016). The majority of customs duties are assessed on an *ad valorem* basis, which is a percentage figure based on the value of the goods. The value of goods is usually determined by reference to the methods outlined in the WTO Valuation Agreement (WTO 1994) and, in most cases, is based on the invoiced value of the goods, the cost of carriage and transport insurance.

Duty rates can be significantly lower where the country of origin benefits from preferential trade agreements. Of these there are many, and the WTO counts 406 active regional trade agreements and lists a further 28 preferential agreements (WTO 2016). Importers that wish to take advantage of them must demonstrate that they meet the relevant agreement's specific preferential origin rules. These, in turn, can be specific to the tariff classification. The resulting technical complexity, which can easily confound experts, has many critics. Bhagwati (1995) once famously compared the tangling of overlapping preferential origin rules to a spaghetti bowl—the so-called 'spaghetti bowl effect'. A different set of origin rules (so-called non-preferential origin rules), apply in instances where origin needs to be determined for anything other than tariff preference, such as for labelling purposes, statistical reporting and trade restrictions.

In most countries businesses are also able to draw on duty reliefs. These ensure that export-orientated manufacturers are placed on equal footing with competitors elsewhere in the world in instances where imported goods are incorporated into finished goods for export. Standard duty-relief procedures include: inward processing relief (or duty drawback); manufacturing under customs control (or customs bond); export processing zones; temporary import (or admission) for re-exportation in the same state; and customs warehousing (Grainger 2000; IFC 2006). In order to take advantage of these procedures companies will usually have to meet strict authorisation criteria which can include requirements for advanced electronic accounting and inventory control systems.

Subject to authorisation, most countries also offer so-called customs simplifications. These may, for example, permit suitably authorised traders to make declarations on a periodic basis (for example, monthly), or clear goods at the importer's own premises with minimal, if any, interference by customs officers at the ports and borders. Often promoted as an incentive in exchange for collaborating closely with the customs administration, several countries are now beginning to explore how duty-relief authorisations and simplifications can be incorporated into wider supply chain security partnership programs (Widdowson et al. 2014b), such as the EU's Authorised Economic Operator (AEO) scheme or the USA's Customs and Trade Partnership Against Terrorism (C-TPAT). These and similar Customs-led supply chain security programs elsewhere (WCO 2012a; WCO 2015a) came to life subsequent to political fears about how the supply chain could be misused for terrorist and criminal purposes—especially after the events of 9/11 (as highlighted by Flynn 2002).

In addition to the above, customs administrations also enforce prohibitions and restrictions. However, customs authorities may (depending on the country concerned) delegate the administration of related import and export licencing requirements to separate specialist government agencies. The list of prohibited and restricted goods differs significantly from one country to the next. Typically, prohibited and restricted goods include illicit narcotics or ingredients that can be used in their manufacture (so-called drug-precursors), weapons, pollutants, endangered species, as well as goods that are subject to veterinary and phytosanitary (or quarantine) controls. Intellectual property rights while goods are held under Customs' control (for example, at the port or border) may also be enforced. As suggested by Grainger (2007) in the context of the UK, the list of trade and customs procedures can include more than 60 procedures.

Perhaps the most significant type of restriction—especially amongst the customs managers interviewed in this study—relates to strategic export controls. These fall into two broad categories: technology controls; and end-use driven controls. Technology controls are concerned with the information necessary for the 'development', 'production' or 'use' of goods or software for military use or may be used by the military (that is, dual use). End-use export controls relate to weapons of mass destruction (WMD) as well as any country or organisation under an arms embargo or subject to sanctions. A number of countries, such as the USA and the European Union (EU), also apply a 'denied persons list' which prohibits trade with named individuals.

The Customs literature

Traditionally, customs management within companies is the domain of a small group of specialist lawyers, brokers and practitioners that concern themselves with the technical details of what has previously been reviewed. The *World Customs Journal* is one of the leading publications dedicated to championing the subject of Customs in a wider academic context. That said, there is emerging customs literature in a cross-section of related academic fields. For example, in history some writers place the administration of customs duties at the very foundation of the nation state—as is well described by Andreas (2013) in the context of the USA and the Boston Tea Party, but also reflected on in the context of Ancient Rome (Cottier et al. 2008) and in modern China (Brunero 2006; Chang 2012; Vynckier & Chang 2012). Indeed, customs officers are often quick to joke that they represent the second oldest profession in the world; in the UK they may also make reference to famous examples of their profession which includes the likes of Adam Smith (1723–1790) and Robert Burns (1759–1796).

The economic literature takes a specific interest in developing the case for the WTO TFA (Walkenhorst & Yasui, 2003; Wilson, Mann & Otsuki 2005; Pomfret & Sourdin, 2010; Busse, Hoekstra & Königer 2012). Following up within the trade policy literature, Grainger (2011) reviews the underlying trade facilitation concepts and ideas. International organisations complement this particular literature with implementation handbooks (UN ESCAP 2002, 2004, 2009; De Wulf & Sokol 2005; UNCTAD 2006a; UNCTAD 2006b; McLinden et al. 2010) and online information resources, such as the United Nations Economic Commission for Europe (UNECE) online trade facilitation implementation guide (UNECE 2016). The WTO and OECD report upon the spend in related Aid-For-Trade economic development projects (WTO/OECD 2015). The Enhanced Integrated Framework's (EIF) Diagnostic Trade Integration Studies provide a series of case studies where a focus on trade facilitation could make a difference (EIF 2016; World Bank 2016a).

The adverse impact of customs upon humanitarian aid logistics and the recommendation to implement facilitating customs agreements with countries prone to disasters, feature in the work of Kunz, Reiner and Gold (2014). Customs-led supply chain security programs are reviewed by Widdowson et al. (2014b) from an Australian customs-policy perspective, while USA-located company case studies are the focus of Sheu, Lee and Niehoff (2006). Border management reform is the topic of the World Bank – funded

handbook that was edited by McLinden, et al. (2010); a theme that has also been examined by those with an interest in electronic customs system (for example, Appels & de Swiellande; 1998 Baida et al. 2008; Raus, Flügge & Boutellier 2009; den Butter, Liu & Tan 2012; Bharosa et al. 2013), port community systems (Long 2009; Baron & Mathieu 2013; Xu et al. 2013) and trade-management systems (Hausman et al. 2010).

The performance of border agencies is the focus of the World Bank's Logistics Performance Index (World Bank 2015) and Doing Business Trading Across Borders dataset (World Bank 2016b). While not always publicly accessible, many countries also conduct time release studies. These are based on a standardised framework developed by the WCO (WCO 2011; Matsuda 2012). The adverse impact of border delays upon perishable agricultural products has been examined by Liu and Yue (2013). The relationship between the private sector and regulatory authorities is highlighted in the work of Grainger (2014b), Davis and Friske (2013), and Mein (2014).

In all of the above, the driving perspectives are largely at the macroeconomic global or country level, or occasionally at the aggregated company level. The underlying motivation of the prevailing literature is to inform policy making and, occasionally, to highlight subsequent implications for businesses. Surprisingly, no concern as yet has been made for the functional level—that of the customs manager who is tasked with applying and administering customs issues within their respective companies. This gap deserves attention. The nine cases discussed in the following research represent a first comprehensive attempt at filling this gap.

Methods

The guiding motive for this research is to establish 'what it is that customs managers do' and 'how they go about it'. As such, the research is qualitative and relies on the long interview (McCracken 1988) with key informants. These interviews were then followed up with multiple feedback cycles.

As is stressed by McCracken (1988), the qualitative investigator serves as an instrument for collecting and analysing data. Unfortunately, access to senior customs managers is not straight forward. The topic is very technical and requires a deep understanding of customs laws and procedures. Developing such knowledge can take time and often includes what Bonoma (1985) calls a 'drift mode', where the researcher starts by learning the concepts, locale and jargon of the phenomenon as it occurs. Being an established expert before commencing an academic career helped short-circuit this considerable investment in time. The ability to understand and make reference to relevant customs laws, procedures and literature also served as a useful device to manufacture distance between the researcher and informant. Indeed, such manufactured distance is one of the prerequisites for a robust long interview (McCracken 1988).

Another challenge is that many companies view the topic to be commercially and legally sensitive. The interviewer thus needs to establish a high level of trust so that confidentiality is assured and that views are fairly represented within the technical context that they were shared. That required level of trust was developed over a period of more than 10 years, first as a trade and customs consultant for one of the Big Four and later as the Deputy Director for Trade Procedures at SITPRO (the UK's former trade facilitation agency), and Secretary for EUROPRO (the umbrella body of European trade facilitation bodies).

The nine key informants were primarily selected by virtue of the size of the companies that they work for—at least \$1 billion in annual turnover with a combined annual turnover in excess of \$400 billion—and to give insight into a cross section of industry sectors. The exclusive focus on multinational firms is merited because the *Pareto principle* (80/20 rule) applies; they represent the bulk of international trade activity. In Australia, for example, there are 245,000 customs-registered importers, but less than 450 make more than 1,000 customs declarations per year (Widdowson et al. 2014a). Anecdotal reports from customs officers in other countries suggest similar *Pareto distributions* (Grainger 2010).

Moreover, multinational companies, by their very nature, operate in multiple locations (Dicken 2011). Thus, insights gained here provide an opportunity to reflect on practices beyond the confines of customs law within any one single country. Importantly, by virtue of their scale and underpinning administrative structure, it is possible to ask about linkages with other business functions, such as logistics, procurement, informational technology, human resources, tax and legal, as well as linkages with suppliers and third parties. In smaller companies these boundaries may not be as clearly defined.

Seven of the nine companies examined can be classed as global shippers, with their primary activities in the following industry sectors: food (2), pharmaceutical (1); technology (1); media (1); automotive (1); and retail (1). Two companies are large-scale logistics service providers with a focus on express shipments. Each of these sectors is exposed to trade and customs procedures in different ways. For some, import taxes might be significant, whereas for others, less so. Some have high customer service expectations that place a premium on speedy logistics capabilities; others do not. Some sectors are predisposed to prohibitions and restrictions; others less so. By taking a cross-section approach, the likelihood of identifying variances in reported practices by nature of the goods shipped, existing customs capabilities and customer expectations, was increased.

Eight of the key informants hold full-time customs or trade compliance roles. One informant shares customs-related responsibilities with the company's indirect tax manager. The majority of interviewees' job titles are variants of Director, Senior Manager, Manager, and Counsellor for Customs, Customs Affairs, Indirect Tax or Trade Compliance. In some cases, job titles also include reference to the region of their responsibility. Geographical responsibilities amongst the sample include: global, Europe Middle East and Africa (EMEA), Europe and the UK (Figure 1). Six of the informants have responsibilities for customs operations in over 50 countries. With one exception, interviewed customs managers worked within their respective companies for more than five years, and most for significantly longer.

Figure 1: Interviewees by region of responsibility and industry sector

Region/Country of Responsibility	Number of Interviewees	Industry Sector
United Kingdom	1	Food (1)
Europe or EMEA	7	Pharmaceutical (1); Technology (1); Express Carriage (2); Media (1); Automotive (1); Food (1)
Global	1	Retail (1)

Source: Author.

All interviews were conducted by telephone in the northern spring 2014 at pre-agreed times and followed up with further emails and telephone exchanges. A typical interview session lasted 60 minutes and followed four lines of enquiry: (1) the interviewee and the company; (2) the company's customs-management practices; (3) the influences of the interviewee upon the company's supply chain and the interviewee's significance within the company; and (4) customs training and education (Figure 2). In line with McCracken's (1988) recommendations for long interviews this ensured that each interview session covered the same terrain and offered prompts to further help manufacture the necessary distance

between the researcher and the interviewee. However, the use of a strict interview protocol was avoided in order to give interviewees some space to shape direction and content, and not lose out on the benefits of learning through interviewer-interviewee interaction (Spradley 1979). To capture the richness of what was communicated, and make sure that the richness of what was conveyed (including the technical details) was not lost, extensive hand-written notes were taken (Lofland & Lofland 2006). Once typed up, these notes totalled 35 pages. The alternative of recording conversations would have been inappropriate since most key informants drew on confidential examples and were mindful of the possible implications that a recorded record might have.

Figure 2: Broad line of enquiry and content of interviews

Lines of enquiry	Interview focal points
About the interviewee and the company	<ul style="list-style-type: none"> • About the interviewee <ul style="list-style-type: none"> • Role and function • Contact and reference details • About the company <ul style="list-style-type: none"> • General • Type of goods traded • Logistics and commercial arrangements
Customs management practices	<ul style="list-style-type: none"> • Location of customs as an area of activity within the corporate set-up • Number of customs staff • Outsourced customs activity (e.g. 3PL, brokers) • Customs linkages within the organisation (internal) • Standard Operating Procedures (SOPs) and related management practices • ICT and automation • Challenges
Influences on supply chain management and the significance of Customs [within the corporate set-up]	<ul style="list-style-type: none"> • Compliance operations • Duty and tax planning practices • AEO, Security, Prohibitions, Export Controls, Fair Trade and other non-duty related customs procedures • Public and legal affairs • General
Customs training and educations	<ul style="list-style-type: none"> • Education and training of the interviewee and of immediate colleagues at the corporate (head office) level and at the country/operational level

Source: Author.

NVivo software was used by the author as a support tool to help identify common narratives and compare and contrast the respective information provided by the interviewees. The first identified narrative touched upon in all interviews was an account of the customs manager's function within their respective organisations. The second identified narrative was an account of the tools used by customs managers to meet their objectives. The third identified narrative was an account of diversity in management practices.

These three identified narratives, which are discussed in the following section, provided for useful analytical categories which were confirmed in subsequent dialogue and through formal review cycles with the key informants. The review cycles also ensured the necessary validation of the analysis made, as well as safeguarding factual accuracy. Importantly, they also ensured that informants felt that confidentiality requirements had been met.

The review cycles applied in this project included: shorter follow-on conversations over the phone or in person to clarify questions that emerged subsequent to speaking to other informants; the production of a draft interim report of all the findings, which in turn provided a reference document for further consultation and feedback;³ and a final feedback cycle with regard to the content and analysis presented in this specific paper. Last, but not least, three academics from different continents provided friendly peer review.

The customs manager's function

The accounts given by the key informants suggest that the function of a customs manager is broad. When describing what they do, three interdependent areas of activity were highlighted: (1) logistics support; (2) supply chain management; and (3) regulatory compliance. Depending on the company not all of these activities received the same level of attention. For some, out of fear of fines and damages to reputation, regulatory compliance is an overriding priority. For others, the primary priority is to ensure port and border clearance without delay (which also necessitates a good reputation with Customs). Several, but not all, are also keen to reduce duty liabilities and the subsequent cost of supplies. Let us consider each of the three areas in greater detail.

Logistics support

Without the consent from Customs goods cannot be cleared through a port or border. One of the customs manager's objectives thus is to help ensure that goods clear ports and borders without disruption or delay at minimal costs. Inevitably, this includes making sure that the correct information is provided to the customs administration and that the correct amount of duties is paid. Where possible, exemptions from VAT on exports are sought. The customs manager may also consider and implement systems that provide for simplified customs and border clearance—for example, by ensuring that customs controls take place at the company's own premises (e.g. when unpacking containers and placing them into their own warehouse) rather than at the port where storage and demurrage costs can be significantly higher.

Customs managers also explained that they frequently find themselves working alongside logistics managers where goods have been held by Customs and subject to further questioning or examination. The customs manager will usually try to build a good rapport with the customs administration. This is to ensure that the risk of inspections with subsequent delays at the border is minimised or, where goods are held, to quickly provide assurance that goods can be cleared. Some customs managers may seek to join customs supply chain security partnership programs by applying, for example, for the EU's AEO status.

Supply chain management

Customs managers are relied on to provide advice about the implications of customs duty associated with the origin of respective supplies, product design (tariff classification), the degree of manufacturing at specific locations (customs valuation), the company's location decisions (applicable customs duties), and the company's logistics decisions—including transport and warehousing (duty suspensions and reliefs). In companies with multiple manufacturing locations this task can be complex and necessitates extensive modelling and business analysis. In sectors that are predisposed to tariff quotas (for example, textiles) and other trade controls (for example, agricultural products, food, high-tech), customs managers

may also have to ensure that import and/or export licences have been secured before procurement or sales decisions are taken. Furthermore, during contract negotiations with suppliers, customs managers are often relied on to ensure that customs-relevant obligations are specified in the contract, such as ensuring that the correct documentation relevant for customs declarations is provided for each and every shipment.

Regulatory compliance

The objective here is to ensure that there are no breaches with applicable customs procedures and legislation. It is also about ensuring that the correct amount of customs duties is paid. Usual regulatory compliance objectives require the customs manager to put systems in place (internally and externally with business partners) to minimise non-compliance risks and subsequent exposure to fines, custodial sentences and loss of reputation. Any adverse dealings with customs administrations can lead to the loss of advantageous customs authorisations, which in turn can impact upon the ability to clear goods efficiently or take advantage of any other beneficial customs procedures.

However, it is not just customs laws and regulations that customs managers need to be concerned about. It was highlighted by several of the informants that in some countries customs administrations are known to be corrupt. The company's country managers may, in such instances, feel tempted to breach company guidelines and pay bribes. This in turn exposes the company to anti-bribery laws in the USA (the *Foreign Corrupt Practices Act*, enacted in 1977), the EU (for example, the UK's *Anti Bribery Act 2010*) and elsewhere. One informant stated that '*corporate reputation is important; we are not a company that takes undue risk. [Though] there have been a few near misses where [country managers] believed [company] rules do not apply to them*'. This interviewee also suggested that competitors have been less diligent about weeding out corruption and subsequently faced criminal prosecution and blacklisting.

In addition to the requirements of customs administration, most informants also made reference to requirements with other tax authorities. One frequently cited example is the UK, where the senior accounting officer of larger companies is required (by reference to the UK's *Finance Act 2009*) to report and confirm that the company has suitable tax accounting arrangements in place. The customs manager will have to prepare reports that confirm that the company's management systems are sufficient to ensure that customs duties are correctly paid.

Tools of the trade

Customs managers, as was explained by the key informants, need to be on top of their field. Within the sample, most did not gain their knowledge and expertise through formal education and found that customs-related education opportunities are rare outside of customs administrations. Occasionally, interviewed customs managers do take part in specialist (non-accredited) executive courses offered by independent customs consultants, law and accountancy firms, and conference organisers. Most informants developed their knowledge and experience through a combination of extended careers: as a customs officer or related public-sector organisation (for example, a national trade facilitation body); as a trade and customs consultant within one of the big four; and as a freight forwarder.

The majority of the interviewees also hold one or more professional qualifications in law, tax, accounting, import and export, or logistics. Regular participation in specialist, often informal practitioner networks, helps ensure that knowledge is shared and kept current. Most interviewees also have an advanced awareness of how customs rules and regulations take shape, and actively engage with policy makers to influence regulatory outcomes.

Typically, customs managers have three mechanisms at their disposal to ensure that customs issues receive due consideration within their company. The first is in person as the in-house expert or 'go-to

person' (a term borrowed from one of the informants). The second mechanism is of an indirect nature by relying on the company's administrative systems. The third mechanism is to contract out to third parties. Let us consider each one of them.

The go-to person

The companies for which most interviewees work are complex, with multiple business units at multiple locations and in multiple countries. Often, as was explained by most informants, a distinction is made between corporate and country management levels as well as between business activities. The later—reminiscent of the work by Porter (1985)—includes primary business activities, such as procurement, production, logistics, and sales, as well as supporting business activities, such as human resources, information technology, tax and accounting. As phrased rather bluntly by one of the informants, the customs manager needs to deal with *'the whole lot'*.

Colleagues in procurement may ask the customs manager for advice about duty liabilities. Colleagues in logistics may: seek advice about how to correctly clear goods in the port; ask for customs clearance—related mentoring and training; request support in how to make customs declarations; and ask for beneficial simplified and duty-relief procedures to be put in place.

People in production may need to be consulted in order to work out the correct customs tariff classification. People in accounts may seek support in securing exemptions from VAT payments on exports, and, in the case of European-based food companies, pay or reclaim any agricultural levies. Customs managers may also need to work with accounts staff to establish the correct customs value upon which import taxes are based.

Further down the supply chain, sales staff, especially within the express sector, may ask the customs manager to provide advice to key customers. Likewise, logistics managers may draw upon the support of the customs manager when contracting out to third parties. Upstream, customs managers are relied on to lend advice on any contractual arrangements with suppliers that touch on customs, such as the correct use of the International Chamber of Commerce's (ICC) Incoterms (ICC 2010) and any customs-relevant obligations that fall upon suppliers (especially those concerning customs-relevant documents, such as origin declarations and commercial invoices).

Sometimes, customs managers partner with colleagues in other fields. For example, colleagues in tax and VAT may identify compliance irregularities within a specific country or business unit, which may also suggest that there are irregularities with regards to customs. *'They look out for me and I look out for them'*, as was explained by one of the interviewees. Most interviewed customs managers also partner with suitably trained logistics colleagues who are responsible for the day-to-day interaction with relevant national customs administrations, including submitting customs declarations. This frees the customs manager to focus on more complex customs matter, especially at the company's regional or global level.

All interviewees stressed the importance of good personal relationships with staff within the customs administrations. This can help resolve any compliance irregularities quickly, and thus safeguard the company's good repute. Such relationships were also thought to be invaluable where companies seek to keep informed on new customs legislation and procedures, such as those relating to supply chain security (WCO 2012b) and the ongoing overhaul of EU customs law—the Union Customs Code (952/2013/EU 2013).

Utilisation of the company's administrative system

Rather than relying on colleagues 'going to' the customs manager, the use of the company's administrative systems can be an efficient way of ensuring that customs requirements and objectives are adequately met. All informants explained that they rely extensively on standard operating procedures (SOPs), as well as supporting electronic systems and software.

SOPs are commonly used within international businesses to document business processes; often they will be tied to the company's quality management system (and independently certified, for example, ISO 9000). Company employees are expected to follow the SOPs and, when necessary, review and update them. For customs managers, SOPs provide an opportunity to specify how customs-related issues are to be addressed within the company. Some of the interviewed informants write the customs-relevant SOPs themselves; others assist relevant business functions in writing SOPs where activities touch upon customs. SOP review meetings involving customs managers can be frequent; for some as frequent as once a week, for others it is more ad hoc.

Information technology is also heavily relied on. Indeed, nearly all declarations to customs (within this interview population) are made electronically. The systems described by the informants include in-house enterprise resource planning (ERP) implementations (for example, by SAP and Oracle) with add-on customs management functionality, as well as specialist third party electronic customs and trade management software (for example, by Amber Road). These systems require customs-relevant information (for example, the commercial invoice, tariff classification, origin, consignor and consignee, shipping details) to be captured correctly. As one of the interviewees delicately put it, *'if the data is shoddy, it [customs compliance] won't work'*, and can be a constant worry for the customs manager. Several companies also use specialist tariff classification software (though not all interviewees were convinced of its accuracy) as well as software to help identify any potential shipments to 'denied persons' (Bureau of Industry and Security 2016) and other export controls and sanctions.

Contracting out to third parties

Contracting out is a further and very common approach to managing customs requirements, especially where companies rely on third party logistics service providers who, as part of their service bundle, will also clear goods through Customs at the ports and borders. Third party customs brokers and customs agents may also be used. A significant part of the customs manager's responsibility thus is to ensure that the appointed third parties are issued with the necessary customs instructions and to monitor their performance, for example by setting contractually pre-agreed key performance indicators and conduct occasional audits of the logistics service provider's customs records.

Some customs managers also rely on third parties—especially customs brokers and customs consultants—*'to provide an extra set of hands'*. These may be used to assist in the custom classification of goods and materials, provide advanced planning advice, implement customs – related IT systems, implement customs duty-relief regimes, and support any other activities necessitating an advanced understanding of customs rules and procedures.

Diversity in customs management practice

Amongst the nine informants, customs management practices differ significantly. In part, this is attributable to the company's specific customer expectations, industry sector, operational priorities and administrative legacies. For instance, the two express carriers and the media company within the interview sample were primarily concerned with ensuring that goods clear ports and borders without delay. Their ability to do this is a key customer expectation. In contrast, other interviewees stated that they were more concerned about safeguarding regulatory compliance and mindful of potential liabilities and impact upon their company's reputation.

A seemingly extreme strategy for avoiding customs compliance risks was described by one of the food manufacturers. This company avoids exposure to customs compliance risks by procuring most of its supplies from local distributors who imported the goods first and then sold them on for a profit. While this does reduce operational complexity and compliance risks, the flip side of this strategy is that the

company—as was explained by the interviewed manager —has no visibility or direct control over its supply chain, nor any knowledge of its exposure to customs-related costs.

Nearly all interviewees described complex electronic accounting and information management systems that enabled them to utilise duty deferment, customs warehousing, inland clearance, and periodic payment of customs duties (on a monthly basis). However, some of the interviewees stated that some of their operations were so complex that the cost of developing IT systems necessary to secure customs authorisation was too large. Some also gave examples of where they failed to persuade senior management to invest in such sophisticated systems (that would be able to meet the conditions of the customs administration and give subsequent access to beneficial customs procedures). Furthermore, several interviewees gave examples of where they are forgoing regular duty-saving opportunities (worth millions per year) in order to ‘*keep things simple*’ and not add to the non-compliance risk or risk delay at the port and borders.

One informant also alluded to the negative public perception of aggressive tax planning, stating that ‘*we are not Amazon*’; a reference to firms that have been publicly singled out for their tax avoidance practices (Oliver & Houlder 2015). Yet, for other interviewees import duties do matter. For example, the retailer highlighted that customs duties amounted to one-quarter of the company’s overall tax bill. This interviewee added that, although ‘*duty planning is not a defined process, it is miraculously well understood* [by buyers utilising preferential origin rules]’. This customs manager also went on to explain that he recently introduced systems to take advantage of beneficial customs valuation rules (so-called first or earlier sale) which helps reduce customs liabilities. Other interviewees explained that they were aware of this option, but were also mindful that this beneficial valuation method may be phased out in the EU once it updates its customs legislation in May 2016 (Regulation 952/2013/EU).

Some interviewees explained that although savings in customs duties are of interest, greater savings can be made in different tax areas, such as transfer pricing—especially in those sectors where goods attract comparatively low customs duties (for example, pharmaceuticals and media). Indeed, several interviewees went on to highlight that the number of tax specialists employed by their company is many times greater than that of customs specialists.

Nearly all interviewees explained that they rely heavily on third party logistics service providers for clearing goods at the ports and borders. However, to quote one of the interviewees, the company’s reliance on third parties ‘*was not a good place to be*’ and they went on to describe how vulnerable the company has become to the risk of agents acting on poor instructions from colleagues in logistics, or simply by making mistakes that go unnoticed by those that monitor the logistics service provider’s performance. Others described a good relationship with their providers and expressed confidence in the services provided.

Perhaps surprising is the diversity in functional affinity. Amongst the interviewees, corporate-level customs managers may work together as a separate (albeit comparatively small) department (for example, Global Trade Compliance); be part of the organisation’s logistics function (for example, Global Logistics and Trade Compliance) or report to the logistics department; be part of the legal department; or fall under tax and finance. Some interviewees highlighted that affinity with the tax or legal departments attracts higher salaries.

All interviewees described considerable scope for improvements, such as by taking advantage of duty-planning measures; becoming more involved in the decision-making process when appointing third party service providers; utilising technology; or engaging in customs policy-making processes more effectively. A common sentiment was that they ‘*only have so much time in the day*’ and most lamented that there have been multiple occasions where they failed to secure suitable company commitment to enhancing customs capabilities. Subsequently, good ideas and initiatives were discarded for lack of investment.

The number of customs managers also differed from company to company. At the global corporate level, numbers ranged from 20 staff (sometimes subdivided by geographic regions) to no staff at all. At the country level, shippers tend to delegate customs matters to logistics staff and third party logistics service providers. In contrast, the two express carriers employed between 150 and 300 country-level customs experts in each of the major countries of their operations. One of the interviewee's company made less of a distinction between corporate and country-level responsibilities, highlighting that they employ about 60–70 full-time customs staff worldwide. Despite variances in staffing practices within the sample, when compared to the total number of staff within the respective companies—for some in excess of 100,000 employees—*'customs is a very small cog indeed'*. Several interviewees stated that they considered themselves to be an *'important cog, but frequently overlooked'*.

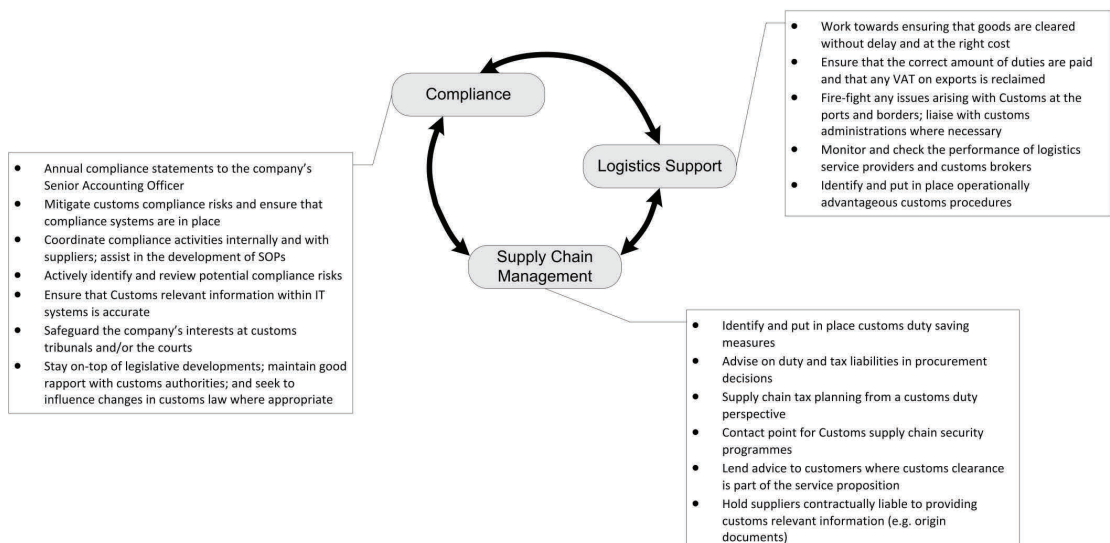
Some informants stated that public affairs work, where they seek to influence customs laws, can consume much of their time (in one case, 80 per cent), while others stated that their day-to-day responsibilities leave them with little spare time for any long-term strategic-motivated activities. Several of the informants have, on occasion, taken customs administrations to court or tribunal in order to overturn decisions made by officers.

Discussion

The customs manager's function is broad. Their activities support the logistics mission by ensuring smooth and uninterrupted port and border operations; they inform wider supply chain management considerations, especially where it concerns preferential customs duties and subsequent location and sourcing decisions; and they ensure that the company does not fall foul of customs and related trade laws.

Figure 3 provides a brief summary of the interdependent activities of customs managers described in preceding sections. Each of these activities requires the customs manager to interact with colleagues across the firm at the country and corporate level, often with an eye on interfaces with suppliers and customers as well as contracted third party logistics services.

Figure 3: The activities of Customs managers within multinational companies



Source: Author.

That said, all interviewed customs managers felt they could do more. With only so much time in the day, they find themselves drawn between allocating time and effort to:

- **Reducing costs:** For example, by taking advantage of duty saving opportunities, but also by ensuring that goods are not delayed at the border.
- **Safeguarding compliance:** Where the customs manager seeks to ensure that the company and senior individuals (including the customs manager) are not exposed to fines or custodial sentences. This in turn safeguards good reputations with customs and border agencies as well as customers and shareholders who expect that the company acts responsibly.
- **Developing strategic capabilities:** Where the customs manager ensures that the company is ahead of its competition. This appears to be particularly important for those managers working in sectors where reliable fast-track customs and border clearance is a critical customer expectation.

Inevitably, there is a significant degree of variance in practice. Within this study many gave examples of how compliance risks could be managed better (especially where customs compliance is outsourced to third parties), how further duty saving opportunities could be made, and how trade and customs procedures could be improved—if only they had the time and capacity. This suggests that there is considerable scope for companies to make improvements, or at the very least make more informed trade-off decisions when allocating time to customs – related activities (or not). The variances in priorities might be attributable to the individuals' specific functional affinity, whether it is linked to logistics, legal, tax, independent or other. Many companies may be well advised to review the role of the customs manager independent of any specific functional allegiance. Instead, guidance should be taken from applicable customs laws and the company's appetite for efficiencies, compliance and strategic capabilities within the customs domain.

That said, customs laws and procedures have been described as complex; a sentiment that has also been conveyed in this paper's brief review of customs law and procedures. Taking a leaf from Simon (1978), there appears to be a degree of *satisficing*, whereby companies and their managers take decisions within the boundaries of their understanding of the topic. This might explain why so much of customs compliance is outsourced and why so many customs opportunities are overlooked. Inevitably, there is scope for customs administration (and educators) to better inform, but also for policy makers to simplify procedures—for example, by eliminating red tape and advancing trade facilitation, which indeed is what much of the international trade and customs policy community is seeking to achieve by reference to the WTO TFA.

Moreover, customs managers, such as those interviewed in this study, have a robust understanding of the operational implications of customs and trade laws. Nearly all those interviewed in this study made reference to how governing customs laws and procedures could be simplified and improved without undermining regulatory objectives. The devil is in the technical detail and policy makers are well advised to draw on this source of expertise via dedicated consultation mechanisms (Grainger 2014b). Indeed, the creation of National Trade Facilitation Committees, as is recommended by the WTO TFA, would be one way of capturing that expertise in order to help reduce the impact of trade and customs procedures upon businesses. A better understanding of customs managers' practices and motivations could also help customs administrations develop better incentives for Customs-Business cooperation schemes, which are one of the cornerstones within the newly emerging supply chain security motivated customs controls (Widdowson et al. 2014b; WCO 2015a).

Conclusions

This paper has shone a light on customs managers within their respective companies. It has shown how their function matters to both logistics and supply chain management, and how it is also driven by fear of non-compliance. It has also highlighted what it is that customs managers do, reflected on opportunities to improve upon customs-management practices within relevant companies, and emphasised the value of consulting customs managers for policy-making purposes.

There remains considerable scope for further research that expands on the customs manager's function. For instance, now that we have identified what it is that customs managers do, it would be useful to explore the customs manager's specific management priorities, choices and behaviours to better understand what drives customs compliance, thus ensuring that regulatory objectives are best met. It would also be prudent to compare practices of the largest companies with those of smallest companies that are presumably even more reliant on third parties, less aware of customs management opportunities, and maybe even more fearful of customs-related risks. Further research that yields a better understanding of customs-related costs would be of interest to policymakers who need to set trade facilitation priorities. Individual companies may wish to learn how to best integrate the customs manager within wider corporate decision-making.

Last, but not least, there is also scope to reflect on this paper as a stepping stone towards extending logistics and supply chain theory by considering the link between Customs and border agencies. As touched upon here, customs administrations have a direct impact on logistics and supply chain management operations by adding to costs. Improved linkages between the parties can reduce those costs. To achieve this requires a better understanding of regulatory requirements, their operational implications as well as the will to reform governing procedures, such as by taking advantage of the favourable wind created by trade-policy commitments to enhance trade facilitation. Customs managers are familiar with the technical details and are a human face to the link between the company and customs administrations. These individuals and their function deserve attention with subsequent implications for research and practice.

References

- Andreas, P 2013, *Smuggler nation: how illicit trade made America*, Oxford University Press, New York.
- Appels, T & Struye de Swielande, H 1998, 'Rolling back the frontiers: the customs clearance revolution', *The International Journal of Logistics Management*, vol. 9, no. 1, pp. 111–18.
- ASYCUDA 2016, *About ASYCUDA*, viewed 18 February 2016, www.asycuda.org/aboutas.asp.
- Baida, Z, Rukanova, B, Liu, J & Tan, Y-H 2008, 'Preserving control in trade procedure redesign – the beer living lab', *Electronic Markets*, vol. 18, no. 1, pp. 53–64.
- Baron, M & Mathieu, H 2013, 'PCS interoperability in Europe: a market for PCS operators?', *The International Journal of Logistics Management*, vol. 24, no. 1, pp. 117–29.
- BBC 2012, *Ireland garlic scam: Paul Begley jailed for six years*, viewed 18 February 2016, www.bbc.co.uk/news/world-europe-17320460.
- Bhagwati, J 1995, 'US trade policy: the infatuation with free trade areas', in J Bhagwati & A Krueger (eds), *The dangerous drift to preferential trade agreements*, AEI Press, Washington, DC.
- Bharosa, N, Janssen, M, van Wijk, R, de Winne, N, van der Voort, H, Hulstijn, J & Tan, Y-H 2013, 'Tapping into existing information flows: the transformation to compliance by design in business-to-government information exchange', *Government Information Quarterly*, vol. 30, supplement 1, ICEGOV 2011 Supplement, pp. S9–S18.

- Bonoma, TV 1985, 'Case research in marketing: opportunities, problems, and a process', *Journal of Marketing Research (JMR)*, vol. 22, no. 2, pp. 199–208.
- Brunero, D 2006, *Britain's imperial cornerstone in China: the Chinese Maritime Customs Service, 1854–1949*, Routledge, London.
- Bureau of Industry and Security 2016, 'Denied persons list', viewed 18 February 2016, www.bis.doc.gov/index.php/policy-guidance/lists-of-parties-of-concern/denied-persons-list.
- Busse, M, Hoekstra, R & Königer, J 2012, 'The impact of aid for trade facilitation on the costs of trading', *Kyklos*, vol. 65, no. 2, pp. 143–63.
- Chang, C 2012, 'The making of new Chinese bureaucrats: the Customs College and the Chinese Customs staff, 1908–1949', *Twentieth-Century China*, vol. 37, no. 3, pp. 229–49.
- Cottier, M, Crawford, M, Crowther, C, Ferrary, J, Levick, B, Salomies, O & Wörrle, M 2008, *The customs law of Asia*, Oxford University Press, Oxford.
- Davis, DF & Friske, W 2013, 'The role of public-private partnerships in facilitating cross-border logistics: a case study at the US/Canadian border', *Journal of Business Logistics*, vol. 34, no. 4, pp. 347–59.
- den Butter, F, Liu, J & Tan, Y-H 2012, 'Using IT to engender trust in government-to-business relationships: the Authorized Economic Operator (AEO) as an example', *Government Information Quarterly*, vol. 29, no. 2, pp. 261–74.
- De Wulf, L & Sokol, JB (eds) 2005, *Customs modernization handbook*, World Bank, Washington, DC.
- Dicken, P 2011, *Global shift: mapping the changing contours of the world economy*, Sage, Los Angeles, CA.
- Enhanced Integrated Framework (EIF) 2016, The EIF supports the Least Developed Countries (LDCs) to use trade as a vehicle for economic growth and poverty reduction, viewed 18 February 2016, www.enhancedif.org/.
- European Commission (EC) 2016, *TARIC Consultation*, viewed 10 February 2016, http://ec.europa.eu/taxation_customs/dds2/taric/taric_consultation.jsp?Lang=en.
- European Union (EU) 2013, 'Regulation (EU) No 952/2013 of the European Parliament and the Council of 9 October 2013 laying down the Union Customs Code (recast)', *Official Journal of the European Union*, vol. 56, no. L269.
- Flynn, SE 2002, 'America the vulnerable', *Foreign Affairs*, vol. 81, no. 1, pp. 60–74.
- Grainger, A 2000, 'Customs and international supply chains issues', *Logistics & Transport Focus*, vol. 2, no. 9, pp. 40–3.
- Grainger, A 2007, *Trade facilitation and supply chain management: a case study at the interface between business and government*, Birkbeck, University of London.
- Grainger, A 2010, 'The role of the private sector in border management reform' in G McLinden, E Fanta, D Widdowson & T Doyle (eds) *Border management modernization*, World Bank, Washington, DC.
- Grainger, A 2011, 'Trade facilitation: a conceptual review', *Journal of World Trade*, vol. 45, no. 1, pp. 39–62.
- Grainger, A 2014a, 'Customs management within multinational companies', *Nottingham University Business School Research Paper*, vol. 2014–06.
- Grainger, A 2014b, 'The WTO Trade Facilitation Agreement: consulting the private sector', *Journal of World Trade*, vol. 48, no. 6, pp. 1167–88.
- Hameri, A-P & Hintsa, J 2009, 'Assessing the drivers of change for cross-border supply chains', *International Journal of Physical Distribution & Logistics Management*, vol. 39, no. 9, pp. 741–61.
- Han, C-R & Ireland, R 2014, 'Performance measurement of the KCS customs selectivity system', *Risk Management*, vol. 16, no. 1, pp. 25–43.

- Hausman, WH, Lee, HL, Napier, GRF, Thompson, A & Zheng, Y 2010, 'A process analysis of global trade management: an inductive approach', *Journal of Supply Chain Management*, vol. 46, no. 2, pp. 5–29.
- International Chamber of Commerce (ICC) 2010, *Incoterms 2010*, ICC Publication, Paris.
- International Finance Corporation (IFC) 2006, 'Streamlining customs procedures: exports and duty-relief regimes', *Reforming the regulatory procedures for import and export: guide for practitioners*, The World Bank Group, Washington, DC, pp. 96–107.
- Kunz, N, Reiner, G & Gold, S 2014, 'Investing in disaster management capabilities versus pre-positioning inventory: a new approach to disaster preparedness', *International Journal of Production Economics*, vol. 157, pp. 261–72.
- Liu, L & Yue, C 2013, 'Investigating the impacts of time delays on trade', *Food Policy*, vol. 39, pp. 108–14.
- Lofland, J & Lofland, LH 2006, *Analyzing social settings: a guide to qualitative observation and analysis*, Wadsworth, Belmont.
- Long, A 2009, 'Port community systems', *World Customs Journal*, vol. 3, no. 1, pp. 63–7.
- Lux, M 2003, *Das Zollrecht der EG*, Bundesanzeiger Verlag.
- Lyons, TJ 2008, *EC Customs law*, 2nd edn, Oxford University Press, Oxford.
- Mann, CL 2012, 'Supply chain logistics, trade facilitation and international trade: a macroeconomic policy view', *Journal of Supply Chain Management*, vol. 48, no. 3, pp. 7–14.
- Massimo, F 2012, *Customs law of the European Union*, 4th edn, Wolters Kluwer, Alphen aan den Rijn, The Netherlands.
- Matsuda, S 2012, 'The time release study as a performance measurement tool for a supply chain and an international corridor', *World Customs Journal*, vol. 6, no. 1, pp. 79–92.
- McCracken, G 1988, *The long interview*, Sage, London.
- McLinden, G, Fanta, E, Widdowson, D & Doyle, T (eds) 2010, *Border management modernization*, World Bank, Washington.
- Mein, JE 2014, 'Customs-private sector partnership: not just wishful thinking', *World Customs Journal*, vol. 8, no. 1, pp. 129–36.
- Organisation for Economic Co-operation and Development (OECD) 2009, *Overcoming border bottlenecks: the costs and benefits of trade facilitation*, OECD, Paris.
- Organisation for Economic Co-operation and Development (OECD) 2015, Policy brief: Implementation of the WTO Trade Facilitation Agreement: the potential impact on trade costs, in Trade and Agriculture Directorate (ed.), OECD, Paris.
- Oliver, C & Houlder, V 2015, 'Amazon tax probe will go ahead, EU warns', *Financial Times*, 26 May.
- Pomfret, R & Sourdin, P 2010, 'Trade facilitation and the measurement of trade costs', *Journal of International Commerce, Economics and Policy*, vol. 1, no. 1, pp. 145–63.
- Porter, ME 1985, *Competitive advantage: creating and sustaining superior performance*, Free Press, New York, NY.
- Raus, M, Flügge, B & Boutellier, R 2009, 'Electronic customs innovation: an improvement of governmental infrastructures', *Government Information Quarterly*, vol. 26, no. 2, pp. 246–56.
- Sheu, C, Lee, L & Niehoff, B 2006, 'A voluntary logistics security program and international supply chain partnership', *Supply Chain Management: An International Journal*, vol. 11, no. 4, pp. 363–74.
- Simon, HA 1978, 'Rationality as process and as product of a thought', *American Economic Review*, vol. 68, no. 2, p. 1.

- Spradley, JP 1979, *The ethnographic interview*, Wadsworth Publishing, California.
- Teo, H-H, Tan, BCY & Wei, K-K 1997, 'Organizational transformation using electronic data interchange: the case of TradeNet in Singapore', *Journal of Management Information Systems*, vol. 13, no. 4, pp. 139–65.
- United Nations Conference on Trade and Development (UNCTAD) 2006a, *Trade facilitation handbook part I – national facilitation bodies: lessons from experience*, UNCTAD, Geneva.
- United Nations Conference on Trade and Development (UNCTAD) 2006b, *Trade facilitation handbook part II – technical notes on essential trade facilitation measures*, UNCTAD, Geneva.
- United Nations Economic Commission for Europe (UNECE) 2016, 'Trade facilitation implementation guide', UNECE, viewed 18 February 2016, <http://tfig.unece.org/>.
- United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) 2002, *Trade facilitation handbook for the Greater Mekong subregion*, United Nations, New York, NY.
- United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) 2004, *ESCAP trade facilitation framework: a guiding tool* (ST/ESCAP/2327), United Nations, New York, NY.
- United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) 2009, *Business process analysis guide to simplify trade procedures* (ST/ESCAP/2558), UNESCAP, Bangkok.
- United States International Trade Commission (USITC) 2016, 'Harmonized Tariff Schedule', USITC, viewed 18 February 2016, <http://hts.usitc.gov/>.
- Vynckier, H & Chang, C 2012, 'The life writing of Hart, Inspector-General of the Imperial Maritime Customs Service', *CLCWeb: Comparative Literature and Culture*, vol. 14, no. 5, article 10.
- Walkenhorst, P & Yasui, T 2003, 'Quantitative assessment of the benefits of trade facilitation', in *Working Party of the Trade Committee* (ed.), OECD, Paris.
- Widdowson, D 2005, 'Managing risk in the customs context', in L De Wulf & JB Sokol (eds) *Customs modernization handbook*, World Bank, Washington, DC.
- Widdowson, D, Blegen, B, Kashubsky, M & Grainger, A 2014a, *Review of Accredited Operator Schemes*, Centre for Customs and Excise Studies, Charles Sturt University, Canberra.
- Widdowson, D, Blegen, B, Kashubsky, M & Grainger, A 2014b, 'Review of accredited operator schemes: an Australian study', *World Customs Journal*, vol. 8, no. 1, pp. 17–34.
- Wilson, JS, Mann, CL & Otsuki, T 2005, 'Assessing the benefits of trade facilitation: a global perspective', *World Economy*, vol. 28, no. 6, pp. 841–71.
- Witte, P & Wolffgang, H-M 2012, *Lehrbuch des Europäischen Zollrechts*, NWB Verlag: Herne.
- World Bank 2015, *Logistics Performance Index (LPI)*, viewed 16 July 2015, www.worldbank.org/lpi.
- World Bank 2016a, *Country trade diagnostic studies*, World Bank, viewed 18 February 2016, <http://go.worldbank.org/99WGL1CJI0>.
- World Bank 2016b, *Doing business – trading across borders*, viewed 18 February 2016, www.doingbusiness.org/ExploreTopics/TradingAcrossBorders/.
- World Customs Organization (WCO) 1999, *International Convention on the Simplification and Harmonization of Customs Procedures (as amended)*, (Revised Kyoto Convention), WCO, Brussels.
- World Customs Organization (WCO) 2011, 'Guide to measure the time required for the release of goods', (Version 2), WCO, Brussels.
- World Customs Organization (WCO) 2012a, *Compendium of Authorized Economic Operator programmes* (2012 edn), WCO, Brussels.
- World Customs Organization (WCO) 2012b, *SAFE Framework of Standards to Secure and Facilitate Global Trade* (June), WCO, Brussels.

- World Customs Organization (WCO) 2015a, *SAFE Framework of Standards to Secure and Facilitate global trade* (June), WCO, Brussels.
- World Customs Organization (WCO) 2015b, *World Customs Organization Annual Report 2014–2015*, WCO, Brussels.
- World Customs Organization (WCO) 2016, 'What is the Harmonized System (HS)?', WCO, viewed 18 February 2016, www.wcoomd.org/en/topics/nomenclature/overview/what-is-the-harmonized-system.aspx.
- World Economic Forum (WEF) 2015, 'Enabling trade: increasing the potential of trade reforms', WEF, Geneva.
- World Trade Organization (WTO) 1994a, *Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade 1994*, WTO, Geneva.
- World Trade Organization (WTO) 1994b, *The General Agreement on Tariffs and Trade*, WTO, Geneva.
- World Trade Organization (WTO) 2014, 'Agreement on Trade Facilitation' (WT/L/931), in *Preparatory Committee on Trade Facilitation* (ed.), WTO, Geneva.
- World Trade Organization (WTO) 2015, *World trade report 2015 – speeding up trade: benefits and challenges of implementing the WTO Trade Facilitation Agreement*, WTO, Geneva.
- World Trade Organization (WTO) 2016, 'Regional trade agreement', viewed 18 February 2016, www.wto.org/english/tratop_e/region_e/region_e.htm.
- World Trade Organization (WTO) and Organisation for Economic Co-operation and Development (OECD) 2015, 'Doha Development Agenda Trade Capacity Building Database (TCBDB)'.
- Xu, J, Notteboom, T, Baron, ML & Mathieu, H 2013, 'PCS interoperability in Europe: a market for PCS operators?', *The International Journal of Logistics Management*, vol. 24, no. 1, pp. 117–29.

Notes

- 1 The author wishes to thank all informants who made this project possible, as well as Professor Chris Evans (UNSW Business School, Australia), Professor Cristiano Morini (University of Campinas, Brazil) and Dr Stefan Gold (Nottingham University Business School, UK) for their kind support of this undertaking. It is much appreciated.
- 2 In the EU, to give an example, the Standard VAT rate in each member state is at least 15 per cent (Article 97 of the VAT Directive 2006/112/EC).
- 3 Once further comments had been collated the author produced a final research report. This, too, was circulated to informants for comment and approval before it was made public as a discussion paper (Grainger 2014a).

Andrew Grainger



Dr Andrew Grainger is based at Nottingham University Business School where he is a lecturer in logistics and supply chain management. His wider research interest is the interface between business and government in international supply chain operations, especially in the context of trade logistics, borders and ports. Before joining the University he was the Deputy Director Trade Procedures at SITPRO, the UK's former trade facilitation agency. Andrew regularly provides advice to international organisations and government ministries and has published extensively within the area of trade facilitation and customs. He is an active member of the International Network of Customs Universities (INCUI).

