

# Chapter 8

## Achieving Standardization: Learning from Harmonization Efforts in E-Customs

**Stefan Henningsson**  
Copenhagen Business School, Denmark

### ABSTRACT

*International e-Customs is going through a standardization process. Driven by the need to increase control in the trade process to address security challenges stemming from threats of terrorists, diseases, and counterfeit products, and to lower the administrative burdens on traders to stay competitive, national customs and regional economic organizations are seeking to establish a standardized solution for digital reporting of customs data. However, standardization has proven hard to achieve in the socio-technical e-Customs solution. In this chapter, the authors identify and describe what has to be harmonized in order for a global company to perceive e-Customs as standardized. In doing so, they contribute an explanation of the challenges associated with using a standardization mechanism for harmonizing socio-technical information systems.*

### 1. INTRODUCTION

The line of trucks waiting to cross the Finish-Russian border is sometimes up to 20 kilometres long. The connection is not obvious at a first glance, but this is actually partly a standardization problem. In this paper we give the foundation to explain how lack of working standards is related to the 20 kilometres queue.

In an increasingly globalized and interconnected world organization of processes across national and organizational borders becomes increasingly important. The subject of how organizations or-

ganize processes between organizations is largely unexplored ground, and one of the most topical subject to organizational researchers (Ahrne et al. 2007; Brunsson and Jacobsson 2000; Brunsson et al. 2012). In the globalized world organizational processes span across national borders and the traditional domains of behaviour regulating bodies (Elenurm 2007; Lorentz 2008; Ahrne 2011).

In settings where hierarchical structures are not available for enforcing behaviour, standards is a frequently attempted managerial technique to regulate activities and to achieve harmonization in behaviour (Brunsson and Jacobsson 2000,

DOI: 10.4018/978-1-4666-9814-7.ch008

Brunsson et al. 2012). Several organizations, including the UN, the World Customs Organization (WCO) and the European Commission (EC), are currently engaged in activities to standardize digital information flows in relation to customs processes. As the world steadily is becoming more globalized, companies are active in several parts of the world, which leads to a steady increase of both regional and inter-regional trade. The administrative burden for global companies has become a painful cost item on the balance sheet.

At the same time as international trade increases there is also an increasing need for more extensive customs controls due to diseases such as bird flu, and mad cow-disease as well as increased threat from terrorists and increasing tax-fraud. The move towards what is called e-Customs (here defined as “digital transfer of information needed for customs processes”) is supposed to solve the seemingly impossible equation of increasing security, traceability and control of export and import while simultaneously decreasing the administrative burden for companies and customs authorities.

To leverage the benefits of digitalization of customs processes, the task of standardizing e-Customs through focusing on customs-related information systems (IS) has turned out to be a critical challenge (Rukanova et al., 2010, Klein et al. 2012). Organizations such as the United Nations (UN), European Union (EU), Association of Southeast Asian Nations (ASEAN), and other regional economic organizations are all active players in the process of standardizing all the world's e-Customs initiatives (Klievink & Lucassen 2013).

However, standardizing e-Customs is especially complex since it means standardization of IS that contains both social (organizational processes and practices) and technical (hardware and software in the computerized network) components (Hanseth and Braa 2001, Hanseth 2014). The technical sides of such systems cannot be

approached ignoring the social use situation, and vice versa the use and functionality cannot be approached without recognizing technical limitations and boundaries (Kolltveit et al. 2007, Henfridsson & Bygstad 2013). The limited research that exists on standards tend to address either only social (e.g., Brunsson and Jacobsson 2000; Schwartz and Tilling 2009) or technical (e.g., Sherif 2007) application areas.

Despite much effort put into the standardization activity, there are signs that this standardization this far has only partly been successful in its attempt to harmonize behaviour and lower total costs. Or, as described by Henningsson and Zinner Henriksen (2011, p. 368) some of the traders are longing for the “good old paper-days”. Taking departure in this dilemma, the objective of the paper is to identify and describe what has to be harmonized in order to that a global company should perceive e-Customs as standardized. This entails the identification of sources why e-Customs solutions, seen as IS, can deviate from each other. Given the limited collective understanding of management through socio-technical standards (Lyytinen and King 2006), a fundamental view of what is to be standardized is a prerequisite for further studies on the political and social processes forming parts of the socio-technical standard.

In the next section we will present previous literature on standardization in international trade, and develop a conceptualization of IS standards implementation deviation, necessary to understand how use of socio-technical standards may deviate from the intentional use. Thereafter we present the case of standardization of the European e-Customs. Based on existing literature and our empirical investigations, we suggest a taxonomy for sources of divergence in e-Customs implementation. Given the taxonomy we discuss and make tentative suggestions on how these problems can be met. Finally we provide conclusions for practice and academia.

14 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/achieving-standardization/147853](http://www.igi-global.com/chapter/achieving-standardization/147853)

## Related Content

---

### The Dilemma and Resolution: The Patentability of Traditional Chinese Medicine

Xu Xuanand Zhang Xiaowei (2012). *International Journal of Asian Business and Information Management* (pp. 1-8).

[www.irma-international.org/article/dilemma-resolution-patentability-traditional-chinese/68982](http://www.irma-international.org/article/dilemma-resolution-patentability-traditional-chinese/68982)

### Personal Traits of Leaders: Creativity, Engagement, Work Performance, and Innovative Behavior of Lecturers in Some Vietnamese Universities

Nguyen Thi Nganand Bui Huy Khoi (2024). *International Journal of Asian Business and Information Management* (pp. 1-17).

[www.irma-international.org/article/personal-traits-of-leaders/356404](http://www.irma-international.org/article/personal-traits-of-leaders/356404)

### Strategic Role of Alumni Associations of Kazakhstan Higher Educational Institutions in Achieving Sustainable Development Goals

Assel Kenesovna Jumasseitova, Rajasekhara Mouly Potluriand Ekaterina Smolyakova (2024). *International Journal of Asian Business and Information Management* (pp. 1-21).

[www.irma-international.org/article/strategic-role-of-alumni-associations-of-kazakhstan-higher-educational-institutions-in-achieving-sustainable-development-goals/351246](http://www.irma-international.org/article/strategic-role-of-alumni-associations-of-kazakhstan-higher-educational-institutions-in-achieving-sustainable-development-goals/351246)

### The Influence of National Culture and Organizational Culture on the Success of an Expatriate Overseas Assignment

Gina Fe G. Causinand Charito G. Ngwenya (2016). *International Business: Concepts, Methodologies, Tools, and Applications* (pp. 1461-1489).

[www.irma-international.org/chapter/the-influence-of-national-culture-and-organizational-culture-on-the-success-of-an-expatriate-overseas-assignment/147917](http://www.irma-international.org/chapter/the-influence-of-national-culture-and-organizational-culture-on-the-success-of-an-expatriate-overseas-assignment/147917)

### Employee Theft Behavior: A Case Study of Five-Star Hotels in Vietnam

Phuong Minh Binh Nguyenand Giang Nu To Truong (2021). *International Journal of Asian Business and Information Management* (pp. 1-20).

[www.irma-international.org/article/employee-theft-behavior/294098](http://www.irma-international.org/article/employee-theft-behavior/294098)