

Chapter 5

Company IT Standardization: Anticipated Agile Benefits

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ABSTRACT

Many companies have embarked on IT standardization initiatives with specific benefits in mind, but some projects fail dramatically whereas others are very successful. The research suggests that successful company standardization projects require good governance and management across distinct lifecycle phases: selection, implementation, and use and change. The authors present a case study from a financial services company to demonstrate effective practices that have led to significant financial benefits, to improved service delivery and support, and to a more stable IT environment. In addition, the authors discuss how an agile way of working could further improve standardization initiatives in organizations.

INTRODUCTION¹

Many companies try to converge on particular IT processes and/or IT products to gain business benefits such as quality improvements, cost reductions or obtaining strategic advantage (Swaminathan, 2001; Boh and Yellin, 2007; Mueller et al., 2015). These efforts can be described as standardization activities since the parties involved “.... have the intention and expectation that the established solutions will be used within a certain period by a substantial number of the parties for which the solutions are meant.” (De Vries, 1999, p. 162). The result of such an initiative is called a company IT standard (Van Wessel, 2010). De Vries (1999) argues that a company standard may have the form of:

1. A reference to one or more external standards officially adopted by the company;
2. A company modification of an external standard;

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3. A subset of an external standard (for instance, a description of the company's choice of competing possibilities offered in an external standard, or a subset of the topics covered in the external standard);
4. A standard reproduced from (parts of) other external documents, for instance, suppliers' documents;
5. A self-written standard.

We define a company IT standard as: “A *specification of an IT product or process to be repeatedly and consistently used in the company*” and the company IT standards in this chapter relate to category 4. in the above list.

Typically, a company standardization process encompasses a number of sequential steps: selection, implementation, and use (including changes and withdrawals) of the standard, which together comprise the lifecycle of the company's IT standards. These internal IT standards are not necessarily restricted to formal standards created by official standard setting organizations, but may also include standards set by consortia or even specifications of propriety products and processes. Some of such standardization initiatives fail dramatically whereas others are very successful, and the reasons are not clear. Companies have to make choices among numerous IT products and processes to arrive at company standards, but how should they do so effectively and efficiently? Who should be involved? How should they plan and control? How should they measure their effects? What are the pros and cons, and the costs and benefits? This paper aims to find empirical evidence of the business impact of a company's IT standard and of the effective governance and management mechanisms for successful company standardization initiatives.

Since the 1980s, scholars have studied the economic aspects of standardization, such as network effects and switching costs (Van de Kaa et al., 2011). The majority of standardization studies focus on the effects of (IT) standards on a macro-economic scale (Blind, 2004; WTO, 2005), on the development of standards by industry, consortia, and international standards bodies (Backhouse, 2006; Nickerson and zur Muehlen, 2006; Teichmann, 2010; Jain, 2012), and on battles between competing standards (overview of studies in Van de Kaa et al., 2011). Others apply the diffusion of innovation theory (Rogers, 2003) to the field of standardization (Poba-Nzaou and Raymond, 2011), or a combination of diffusion of innovation and economic theories (West and Dedrick, 2006; Mendoza and Ravichandran, 2011). At the company level Wiegman (2019) investigated, among others, how firms managed standards for micro Combined Heat and Power (mCHP) technology while developing their mCHP products. Yet, the number of academic studies on standardization in companies remains limited and fragmented and this book forms an exception. The professional literature on IT standards seems to have adopted an almost exclusively technical point of view.

One of the classic problems facing standardization and standards usage in companies is demonstrating its contribution to the company's total success (Hesser and Inklaar, 1997). Typically, in standardization there are significant uncertainties about the factual costs and benefits and about adequate planning and control strategies (Weitzel, 2003). Kayworth and Sambamurthy (2000) show that the organizational context in which IT infrastructure standards are used is an important success factor with respect to the satisfaction of specific local needs and the degree to which the standards are integrated in the whole company. Swaminathan (2001) describes the issues that companies face when they consider mass customization to meet the needs of their businesses. He identifies four operational strategies for standardization employed by firms to minimize the increase of variability in the operating environment. These include part standardization, process standardization, product standardization, and procurement standardization.

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