Chapter 8
Effective Management of Standardizing in E-Government

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ABSTRACT

Standards play an important role in the interoperable exchange of information among actors with different business functions. Particularly in government, standards enhance communication between public administrations and lay the ground of interoperability in e-government service provision. Still, practice often struggles with numerous challenges such as complex administrative procedures, jurisdiction, numerous stakeholders with diverging wants and needs and the ultimate goal of social welfare. At the same time, academia provides a limited number of approaches to address existing challenges and transferring findings from a private organizations' context is rarely a viable approach. The authors introduce effective management of standardization in e-government by describing the shape of standardization in that specific domain and by encompassing suitable coordination mechanisms. They follow a qualitative explorative research approach and apply coordination theory to pragmatically interpret our findings, offering implications for both theory and practice.

INTRODUCTION

Standards play an important role in the interoperable exchange of information—for example, master data management, software system interoperability and integration, service delivery (Krcmar, 2015)—among actors with different business functions (International Organization for Standardization, 2015). Particularly in government, standards enhance communication between public administrations (European Commission, 2010). For instance, standards are a way to secure and correct information exchanged at the right time with the right people and in the right quality (Radack, 1990) by enabling the interconnectivity of the information systems that underlie the execution of administrative procedures and, ultimately, the provision of services to citizens (Borras, 2004b). With the rise of electronic government (e-government) and corresponding digitalization efforts, standards for managing information technology are a necessity in improving the maturity of digitalized government services (Lam, 2006), so standardization has gained

increased attention in government (Blind & Gauch, 2009), (Charalabidis, Lampathaki, & Askounis, 2009),(A. S. Hellberg & Å. Grönlund, 2013).

Given the importance of IT standardization and the complexity of its effective management (Jakobs, 2005, 2007, 2009), extant research on standardization in organizations (Brunsson, Rasche, & Seidl, 2012) and information systems management (Lyytinen & King, 2006b) has emphasized measures to counter complexity challenges (e.g.(Ole Hanseth, Jacucci, Grisot, & Aanestad, 2006)). Still, the applicability of the provided measures in an e-government context is limited by differences between private organizations and government bodies (Jurisch, 2014b; Rainey, Ronquillo, & Avellaneda, 2010). In particular, IT standardization management is challenged by the complexity of government procedures (Bharosa, Lee, & Janssen, 2009),(Janssen, 2011), stakeholder dependencies and their benefit expectations is often ineffective in practice (Blum, 2005; Hans Jochen Scholl, Kubicek, Cimander, & Klischewski, 2012). To address those issues, various approaches to IT management tailored to the context of e-government have been developed (Guijarro, 2007),(Büttner et al., 2014). Examples standardization artefacts include SAGA (Federal Government Commissioner for Information Technology, 2011) with its focus on software specifications and development methods in the context of government bodies in Germany and the European Interoperability Framework (European Commission, 2010) for public administration in the European Union. Still, their application in practice has not led to the expected results and our understanding of further approaches has yet to advance in theory and practice in order to successfully mediate the process of standardization.

With respect to the addressed challenges, the objective of this paper is to introduce effective management of standardization in e-government by describing the shape of standardization in that specific domain and by encompassing suitable coordination mechanisms. In regard to the shape of standardization in the context of complex administrative procedures, our approach consists of addressing the following two questions by studying literature and surveying cases using secondary data of standardization projects in the e-government context: (i) What are determinants, strategies and outcomes of standardization in e-government? (ii) What types of standardization artefacts are in focus of research and practice in the e-government context? Finally, based on that descriptive approach to shedding light on standardization, we adopt coordination theory to address: What are coordination mechanisms for effective standardization management in the e-government context?

This article is structured as follows. First, we present the research background and describe our research method. Next, we describe the shape of standardization in e-government as well as effective coordination mechanisms for standardization management. Finally, we discuss our findings in regard to implications for theory and practice as well as conclude on limitations and future research.

RESEARCH BACKGROUND

E-Government

Electronic Government ('e-government') is the execution of any kind of processes with the help of information and communication technology within the public sector (Reinermann & Von Lucke, 2002, p. 1). Public administrations can either communicate with each other, with private organizations and with citizens, while one party either consumes or provides a service based on an administrative procedure predefined in law and regulations. Still, e-government is not only about the administration providing

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