Chapter 2.13
The Evolving Portfolio of Business-to-Business E-Services:
Service and Channel Innovation

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ABSTRACT

E-services have been recognized for their contribution to strengthening customer relationships and fostering customer loyalty. While prior research has focused on the role of e-services in business-to-consumer interactions, this chapter studies e-services in the business-to-business domain. More specifically, it explores how the preferences for e-services and electronic channels change over time as a result of developing technology and evolving customer requirements. Based on the case study of ETA SA, a Swiss manufacturer of watch movements and components, three stages of increasing electronic interaction with customers have been identified. The company pioneered online ordering of watch spare parts based on a first generation e-commerce solution and subsequently introduced a comprehensive customer service portal. This research suggests that moving from the e-commerce solution to the customer process portal involved a significant extension of the e-service portfolio (service innovation), whereas the subsequent stage introduced an additional electronic channel (channel innovation). Every stage in this evolution path forces companies to substantially re-architect their interorganizational process and system linkages. From the experiences of ETA SA, we conclude that a well-designed B2B architecture is required to cope with the growing number of e-services and the complexity of serving multiple electronic channels.

INTRODUCTION

Progress in information technology (IT), and more specifically the emergence of the Internet, is considered a major accelerator in realizing closer forms of collaboration between business partners. On the customer side, the electronic channel has proved valuable in offering supplementary self-services that are information-based and need not be co-located

DOI: 10.4018/978-1-60566-964-9.ch012

with the product (e.g. Day & Hubbard, 2003; Piccoli, Brohman, Watson, & Parasuraman, 2004). In fact, many companies report closer customer relationships and improved operational efficiencies in their customer-facing or downstream processes (Chen & Chen, 2004). While the literature on electronic services is heavily skewed toward the business-to-consumer (B2C) field and focuses on online retail channels (e.g. Cenfetelli, Benbasat, & Al-Natour, 2008; Madlberger, 2006; Palmer, 2000; Piccoli, et al., 2004), the specificities of business-to-business (B2B) interactions have attracted less attention so far. These interactions tend to be more complex in nature since they often imply trading sophisticated bundles of goods and services in mid- to long-term business relationships. Thus, traditional mechanisms for customer service in industrial markets such as large (and expensive) field forces and customer support centers will tend to be complemented rather than replaced by self-service strategies (e.g. Archer & Yufei, 2000; Bhappu & Schultze, 2006; Merrilees & Fenech, 2007; Wilson & Daniel, 2007).

In the literature, the term 'e-services' is sometimes used as a synonym for Web sites (van Riel, Liljander, & Jurriëns, 2001), and many studies assess e-service quality based on factors like Web site esthetics, accessibility or reliability, typically using the SERVQUAL service quality framework. Recently, a more differentiated view has been adopted which introduces a functional perspective of Web-based services (Cenfetelli, et al., 2008; Otim & Grover, 2006; Piccoli, et al., 2004). In the context of our research, e-services denote services which are delivered using electronic channels, most frequently the Internet. Interestingly, many e-services that once were a source of differentiation, like online product configuration or parcel tracking, become state-of-the-art functionality over time. Whereas the emergence of such a dominant design has been described by Piccoli et al. (2004), it is not well understood how the preferences for e-services and electronic channels change over time as a result of developing technology and evolving customer requirements. Previous studies in this field, e.g. by Yeung & Lu (2004) and Piccoli et al. (2004), focus on the evolution of commercial Web sites. They do not take other electronic interaction channels into account which are of particular relevance in industrial markets (Cullen & Webster, 2007). This paper takes on the particular challenges of business-to-business e-services and explores the following questions:

(1) How does the e-service portfolio as well as the nature of electronic interaction evolve over time?
(2) In which way does the evolving e-services portfolio impact the process and integration architecture of an enterprise?

Since there has been little conceptual and empirical research on the evolution of e-services and the implications for organizational and IS design, our study is exploratory in nature. We adopted a case study research method which is particularly suitable for understanding phenomena within their organizational context (Benbasat, Goldstein, & Mead, 1987; Eisenhardt, 1989; Yin, 2002). As case site, we chose ETA SA, a manufacturer of watch movements and components, that launched one of the first e-shops targeted at B2B customers in Switzerland and today is successfully interacting through electronic channels with 80% of its global customer base. Based on a longitudinal case study, we explore different stages of electronic interaction with customers and deduce the future need for offering electronic services using both direct and portal-based electronic channels.

This paper is structured as follows: Following an introduction to e-services and the role of electronic channels, this article goes on to outline typical issues in implementing higher levels of process integration with external partners and the convergence of internal and external integration technologies. Then, the research approach and the research methodology are discussed. Next, the