Chapter 2
The Drivers of ERP Value Among Scandinavian and Iberian SMEs

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ABSTRACT

In the strategic information management field, IT value from for instance Enterprise resource planning (ERP) systems are considered to be paramount in the global economy. Recent research on IT business value claims for more cross-country studies as well as within the space of SMEs. Grounded in the resource-based view theory the authors propose a research model to explain ERP value. To empirically test this model, the study addresses a survey to a wide range of 2000 Scandinavia and Iberia firms and their IT and business executives. The model explains 43.9% and 49.1% of the variation in ERP value for Scandinavian and Iberian firms respectively. Results show that whereas for both regions, analytics and collaboration are important drivers for ERP value, ERP use is not significate for Scandinavian SMEs. This research studying ERP value among SMEs add an international dimension to the IS literature. The current paper also presents theoretical and practical implications, and the study’s limitations.

INTRODUCTION

Today’s economy is forcing many enterprises to change in order to survive. To compete in the global economy, firms often use enterprise resource planning (ERP) systems, which provide a process-oriented business management view, a better way to execute business operations in an effective, organized, and sophisticated way (Ruivo et al., 2015, Parthasarathy and Sharma, 2014, Ram et al., 2013c, Ram et al., 2013b, Ram et al., 2013a, Ram et al., 2014). ERP is an IT resource that supports business activities along the value chain (Bharadwaj, 2000, Uwizeymungu and Raymond, 2012). The ERP is considered as one of the most significant and complex technological innovations for a firm (Davenport and Harris, 2007).

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The value of ERP systems is an active research area in the information systems (IS) discipline. Although important, much of the existing literature has focused on the adoption decision, more precisely on “adoption versus non-adoption” (Huy et al., 2012, Hong et al., 2012). However, innovation diffusion represents a complex process that starts at adoption and extends to use and value creation (post-implementation) (Zhu and Kraemer, 2005, Devaraj and Kohli, 2003, Gattiker and Goodhue, 2005a, Ram et al., 2014).

ERP systems were initially implemented mostly in large organizations, and this has probably been the main reason for why research has focused on large enterprises. Although small and medium enterprises (SME) have been adopting ERPs for many years, the literature argues that little attention has been given to research on ERPs in SMEs (Chang et al., 2010, Sharma et al., 2012, Ruivo et al., 2015) and even less on cross-national studies (Buonanno et al., 2005, Lee et al., 2012).

European firms adopt more and more information systems to transform firm’s value-chain activities. According to the European Commission (2011), 99% of all European firms are SMEs with less than 250 employees. Although culturally disparate, both Scandinavian (Sweden and Denmark) and Iberian (Portugal and Spain) regions (Everdingen and Waarts, 2003), adhere to this profile, and with the same percentage. SMEs are the support of Europe’s economy, and are important for increasing productivity and gaining competitive advantage in the global economy, and because of that they are also important drivers of innovation and transformation.

The organizational applications and managerial implications of ERP systems play an important role in providing a deep understanding of the phenomenon to researchers and practitioners in the strategic information management field, and studying ERP value among SMEs between two distinct European regions is of special interest (Ramdani et al., 2009).

Motivated by these issues, this study seeks to improve the understanding of ERP on SMEs by inquiring: What are the drivers of ERP value among Scandinavia and Iberia?

To answer this research question we developed a conceptual model based on a synthesis of resource-based view (RBV) theory of the firm. We empirically evaluate the joint model through a large-scale survey targeting 2000 firms in Scandinavia and Iberia regions.

The paper is organized as follows: we next present the theoretical foundation and propose the conceptual model through the hypotheses development, followed by the methodology and results. This paper closes with a discussion of major findings, contributions and limitations, and concluding remarks.

THEORETICAL FOUNDATION AND RESEARCH MODEL

Over the last decade research on ERP systems has focused mainly on identifying the drivers to ERP implementation and successful usage (Anderson et al., 2011, Dezdar and Sulaiman, 2009, Helo et al., 2008, Jang et al., 2009, Ke and Wei, 2008, Koh et al., 2009, Nicolaou and Bhattacharya, 2006, Ram et al., 2013a, Ram et al., 2014, Shahin and Ainin, 2011, Tchokogué et al., 2005, Zhang et al., 2005, Schlichter and Kraemmergaard, 2010, Botta-Genoulaz et al., 2005) and not so much on an attempt to identify the drivers in ERP post-implementation (Bendoly et al., 2009, Cotteler and Bendoly, 2006, Gattiker and Goodhue, 2005b, Hwang and Grant, 2011, Kang et al., 2008, May et al., 2013, Ram et al., 2013c, Rhodes et al., 2009, Tsai et al., 2011, Uwizeyemungu and Raymond, 2012, Law et al., 2010). Unlike the typical focus on adoption (or intent to adopt), we focus on post-implementation stages, that is, actual use of ERP and value creation from ERP. Both are critical stages that impact a firm’s performance (Tornatsky and Fleischer, 1990, DeLone and Mclean, 2003, Zhu and Kraemer, 2005, Cooper and Zmud, 1990, Devaraj
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