Chapter 12
Electronic Procurement: The Supplier Perspective

Paulo Andrade
ISCTE – Instituto Universitário de Lisboa, Portugal

Bráulio Alturas
ISCTE – Instituto Universitário de Lisboa, Portugal

Tiago Oliveira
ISEGI, Universidade Nova de Lisboa, Portugal

ABSTRACT

E-procurement systems make purchasing activities more effective in terms of both time and cost. However, over the past years there is evidence that some of the expected benefits have not been achieved. Among several causes, supplier’s low adherence to such platforms has been regarded as one. The focus of this work is in supplier adoption of e-Procurement. It will help to better address the issues actually faced by suppliers within e-Procurement. The authors have conducted a questionnaire-based survey to 721 Portuguese companies and performed an empirical analysis of the data. The findings from this work provide evidence that the supplier perceived indirect benefits and business partner pressures are most important to e-Procurement adoption while barriers have a negative impact on their adoption. The main critical success factors on e-Procurement adoption are also presented.

INTRODUCTION

Procurement is a common business activity since companies depend on goods and services provided by other companies. It is estimated that about 75% of sales revenue will be applied to the purchase of goods or services (Cagno, 2004). Suggested by its name, e-Procurement is the application of information technologies in the procurement process. Gershon (1999) considers e-Procurement as the whole process of acquisition from third parties over the internet; this process spans the whole life cycle from the initial concept and definition of business needs to the end of the useful life of an asset or end of a services contract. E-Procurement allows part or all of purchase activities to be conducted electronically, leading to cost reduction in goods, improved order processing times and
gains in transparency (Pereira & Alturas, 2007). E-Procurement has the potential to provide cost and time reductions when ordering from suppliers, and helps to achieve a well-integrated supply chain. A survey conducted in the UK showed that the majority of companies believed that implementation of e-Procurement solutions were critical for the success of their business in the future (Stein & Hawking, 2004). Also an increasing number of public institutions identified electronic purchasing as a priority to e-Government. Many implemented or are in the process of implementing e-Procurement systems. The adoption of e-Procurement in public administration has a huge impact since governments spend large amounts in acquiring materials and services. Some of the benefits are the cost reduction in goods, services and order processing, better transparency to the suppliers and e-commerce development (Pereira & Alturas, 2007).

Companies are approaching e-Procurement implementation with different strategies. Davila et al. (2003) identified two main types of companies. The first type is moving aggressively to adopt e-Procurement, frequently experimenting with various solutions. The second type adopts a more conservative strategy by selectively experimenting, typically with one technology. The latter group relies on these limited experiences to provide the capabilities to move quickly into the technology as a dominant design appears.

An e-Procurement system depends on several critical success factors (CSF). Among the different CSF identified in the literature, supplier adoption is one of the most important (Vaidya, Sajeev, & Callender, 2004). A successful e-Procurement system is required to have suppliers willing and able to trade electronically (Benton, 2005). However, users of e-Procurement reported that they can acquire goods over the Internet from only 15% of their supply base (Davila, et al., 2003). A report from the European Union (EU) also confirms that only 13% of EU companies are receiving orders online and 27% placing orders online with suppliers (EC, 2005). Engaging suppliers in the process (especially smaller companies) has proven to be difficult given the level of investment required and the different needs of their customer base in terms of technologies and internal procedures. Although suppliers play an important role in the global success of e-Procurement implementations, their adoption factors have been studied very little (Gunasekaran, McGaughey, Ngai, & Rai, 2009).

Users of e-Procurement technologies reported that they can acquire goods over the Internet from only 15% of their supply base (Davila, et al., 2003). A report from EU also confirms that only 13% of EU companies are receiving orders online and 27% placing orders online with suppliers (EC, 2005). Engaging suppliers in the process (especially smaller companies) has proven to be difficult given the level of investment required and the different needs of their customer base in terms of technologies and internal procedures. A successful e-Procurement system is required to have suppliers willing and able to trade electronically. For example, a key learning from a study conducted by the Australian Government (AGIMO, 2005) was that supplier adoption is important to the overall success of an e-Procurement program. They concluded that the more suppliers in the system, the more inclined buyers will be to use it. If suppliers are not correctly involved, then a low adoption rate can constrain users from leveraging the full associated capabilities from e-Procurement solutions. The lack of a critical mass of suppliers accessible through the organization’s e-Procurement system might limit the network effects that underlie these technologies, delaying the acceptance and adoption of the solution.

In this study, we will examine the main factors affecting supplier adoption of e-Procurement. While the majority of the actual literature focuses only on the buyer side of e-Procurement (Gunasekaran & Ngai, 2008; Soares-Aguiar & Palma-Dos-Reis, 2008), the focus will be on the seller side. Moreover, the identification of the perceived benefits, perceived barriers, CSF and