Chapter II

Organizational Assimilation of E-Procurement: An Institutional Perspective and the Research Model

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Abstract

The focus of the majority of research on e-procurement has been on the possible impact of e-procurement adoption on the buyer’s interaction with the suppliers, whereas very little has been discussed about e-procurement assimilation. This chapter looks beyond the decision of adoption of the technology, investigating the environmental conditions that may influence the successful assimilation of e-procurement in the public sector organizations. Using institutional theory and building on prior research on the theories of technology assimilation, this chapter investigates the institutional factors that enable higher levels of e-procurement assimilation in the public sector and also argues that the e-procurement benefits greatly depend on the operational and strategic organizational assimilation of e-procurement with different levels.
of success. This chapter also discusses the need to integrate other theories such as diffusion of innovation theory, transactional cost theory, and structural theory of technology use, and proposes a holistic research model in order to investigate the antecedent conditions that are likely to influence the assimilation of public e-procurement.

Introduction and Background

Procurement encompasses a range of activities such as information search, requisition request, approval, purchase order, delivery receiving, and payment (operational activities), and identifying sourcing opportunities, negotiation, and contract (strategic activities) (Gebauer & Segev, 2001). Electronic procurement (e-procurement), for the purpose of this chapter, has been defined as the use of Internet-based information and communication technologies (ICTs) in order to carry out one or more transactional or strategic procurement activities. While there is no consistency in defining the terms procurement process and e-procurement in the existing literature (Vaidya, Yu, Soar, & Turner, 2003), this chapter considers various transactional and strategic procurement activities as the standard procurement process which can be conducted by using e-procurement technologies, including e-tendering, e-auctions, e-catalogues, e-marketplace, and integrated in-house or third-party e-procurement software (e-procurement system).

Over the last several years, the implementation of e-procurement has experienced explosive growth in some organizations, while others have resisted its assimilation. It has been suggested that if e-procurement were to be fully assimilated, it could save governments up to 5% on expenditure and up to 50-80% on transaction costs (Commissions of the European Communities [CEC], 2004). According to the recent e-procurement benchmark report by the Aberdeen Group, (Minhan, 2004), organizations have been able to reduce off-contract spending by 64%, requisition-to-order cycles by 66%, and requisition-to-order costs by 58%. IDC predicts that e-procurement will grow from US$225 billion in 2002 to about US$1.5 trillion by 2006 (Hamblen, 2002). Greater estimates have been made for the emerging economies. However, despite the growth of e-procurement and the potential benefits provided by the technology, organizations differ in the speed with which they assimilate e-procurement. Needless to say, the contribution of new technologies such