Inter-Organizational Trust in Business-to-Business E-Commerce: A Case Study in Customs Clearance

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ABSTRACT

This study seeks to understand inter-organizational trust as an antecedent factor in adoption and participation in e-commerce. Exploratory research together with a literature review paved the way to the development of a conceptual model. The model was tested via four case studies consisting of a large public sector organization and three small-medium enterprises (SMEs) involved in customs clearance. SMEs included an Internet service provider, a customs broker (agent), and an importer. Data was collected via in-depth interviews, discussions with key personnel, and from existing documents. The findings strongly indicate that inter-organizational trust is important for e-commerce participation, as organizations need to cooperate, collaborate, and communicate timely and relevant information in order to facilitate e-commerce. This entails not only technological proficiencies, but also trust between trading parties, so that business transactions are sent and received in an orderly fashion.

Keywords: interorganization trust; e-commerce; small-medium enterprises

INTRODUCTION

The objective of this study is to examine the importance of interorganizational trust in the adoption of and participation in business-to-business e-commerce. E-commerce participation refers to the extent an organization has adopted and integrated e-commerce. Sydow (1998) defines interorganizational trust (IOT) as “the confidence of an organization in the reliability of other organizations regarding a given set of outcomes or events” (p35). This study defines interorganizational trust as “the confidence in the reliability of two organizations in a possibly risky situation that all trading partners involved in the action will act competently and dutifully.”
The adoption of Internet-based commerce requires a certain level of trust, both in the technology being used to transact business messages and in the parties with whom trade is being conducted. The evolution of Internet provides the ability to conveniently and flexibly share information across organizations, thus radically transforming organizational procedures. Consequently, Internet-based business-to-business e-commerce applications can potentially lead to profound changes in inter-organizational relationships. Moreover, by reaching trading partners through the Internet, organizations are able to implement more effective targeted marketing and relationship-building strategies with lower overheads. For example, extranet e-commerce applications have provided the ability to track real time information with lower costs and flexibility (Riggins & Rhee, 1998; Senn, 1998). Thus, there is a two way or cyclic relationship between participation in e-commerce and trust—trust as an antecedent of participation—and participation in e-commerce can, in turn, modify trust. However, this study will investigate only the forward part of the cyclic relationship that is the role of trust in participation in e-commerce.

There seems to be a perception by businesses that e-commerce transactions may be both insecure and unreliable. Despite the assurances of security and reliability of technological security mechanisms (such as encryption mechanisms, authorization mechanisms, digital signatures, and certification authorities), trading partners in business-to-business e-commerce do not seem to trust the ‘people side’ of the transactions (Marcella et al., 1998). Lack of trust, in e-commerce activities led to uncertainties in the e-commerce environment. These uncertainties, in turn, create a perception of increased risk, thereby inhibiting the tendency to participate in e-commerce. Uncertainties reduce confidence both in the reliability of business-to-business transactions transmitted electronically and, more importantly, in the trading parties themselves. Parkhe (1998) identifies two types of uncertainties: uncertainty regarding unknown future events, and uncertainty regarding trading partners’ responses to future events. It is in this environment of dual uncertainty that trust becomes important in business-to-business e-commerce participation.

It is only recently that IS literature has recognized the complementary and, at the same time, competing roles of technology and trust in interorganizational business relationships. For example, while some scholars (Malone et al., 1987; Clemons et al., 1993) have focused primarily on information technology as a means of reducing interorganizational transaction costs, Kumar et al.’s (1998)’s findings, suggest the substitutability of trust and technology in reducing transaction costs in interorganizational-systems (IOSs). Thus, it is important that we understand the relative roles of technology and trust in e-commerce participation.

The paper proceeds in the following way. The next section discusses the theoretical foundations leading to the development of a conceptual model. While the third section describes the research process, which includes a case study design, data collection and analysis procedures, the fourth section discusses the key findings. The paper concludes with contributions made to this study and directions for future research.
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