Chapter XV

The Role of Inter-Organizational Trust in B2B E-Commerce

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ABSTRACT

This chapter seeks to understand inter-organizational-trust as an antecedent factor in the adoption of and participation in e-commerce. Exploratory research from different theoretical perspectives including the inter-organizational relationship theory, transaction cost economics theory, resource dependency theory, and a literature review on trust in business relationships, and trust and security based mechanisms 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 (SME) involved in customs clearance. SME 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 suggest that there are two forms of trust; trust in the technology and trust in the trading partner. Further, 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.

INTRODUCTION

E-commerce is the sharing of business information, maintaining business relationships, and conducting business transactions by means of telecommunications networks. The hype and growth of B2B (B2B) e-commerce has been accelerating in recent years. Forrester research predicts that e-commerce in the United States worth $131 billion in 1999 B2B is projected to reach $1.5 trillion by 2003. However, 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 B2B e-commerce do not seem to trust the *'people side'* of the transactions (Marcella et al., 1998). Lack of trust in e-commerce activities leads to uncertainties in the e-commerce environment, which in turn creates a perception of increased risk, thereby inhibiting the tendency to participate in e-commerce. Uncertainties reduce confidence both in the reliability of B2B transactions transmitted electronically and, more importantly, in the trading parties themselves. Based on the above reasoning we suggest that there are two types of uncertainties. First, uncertainties in the e-commerce system and environment (as in third party services, national and international standards, taxes, also known as environmental uncertainty), and secondly, uncertainties in the trading partner (i.e., being dishonest and unreliable, also known as behavioural uncertainty).

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 trading partners 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 B2B 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.

The objective of this study is to examine the importance of inter-organizational-trust in the adoption of and participation in B2B e-commerce. E-Commerce participation refers to the *extent* an organization has adopted and integrated e-commerce. Sydow (1998) defines inter-organizational-trust (IOT) as *"the confidence of an organization in the reliability of other organizations regarding a given set of outcomes or events"* (p. 35). This study defines inter-organizational-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 rest of the chapter is structured as follows. The next section discusses the theoretical foundations leading to the development of a conceptual model. This is followed by a section describing the research process, which includes a case study design, data collection and analysis procedures. The following section discusses the

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