Chapter XII

Lessons Learned from EDI and Its Impact on Institutional Trust in Electronic Marketplaces

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Abstract

Given the uncertainties of e-business, this chapter examines the role of institutional trust, which has been viewed as a key facilitator of electronic marketplaces (Pavlou, Tan, & Gefen, 2003). In doing so, we draw upon the principles of research on traditional electronic data interchange (EDI) via value-added-networks (VANs) to develop a set of theory-driven, institutional trust-building, facilitating conditions, namely, (1) IT connectivity, (2) standards, (3) security, and (4) uniform product descriptions. This study has implications for (1) the nature and role of institutional trust in e-marketplaces, (2) the strategic design of trust-building mechanisms in e-marketplaces, and (3) an extension of the literature on institutional trust.

Introduction

E-marketplaces have recently received considerable attention in e-business research (Bakos, 1998; Palmer, Bailey, & Faraj, 2000; Sarkar, Butler, & Steinfeld, 1995). E-marketplaces attract a larger pool of trading partners and deal with multiple participants transacting electronically for the best price in order to increase liquidity and have a variety of price mechanisms, such as auctions (Dai & Kauffman, 2001). They have been defined as "e-marketplace or electronic market system is an inter-organizational system that allows the participating buyers and sellers in some market to exchange information about prices and product offerings" (Bailey & Bakos, 1997). E-marketplaces may be bringing about one of the most significant structural change in business since the industrial revolution (Rayport & Sviokla, 1994), with a recent increase in interest in e-marketplaces by practitioners and academicians ("Business to business e-boom," 2000; Kaplan & Sawhney, 2000). The emergence of e-marketplaces may substantially contribute to advantages of economies of scale and scope, reduction of search costs (Bakos, 1998), trust building (Pavlou, 2002; Pavlou et al., 2003), and value-added services (El Sawy & Pavlou, 2002).

Despite the technology stock down turn and the cost of 80,000 "minute millionaires," the Internet and other examples of technological innovations are expected to continue to drive wealth creation (Weems, 2001). The evident success of business-to-consumer (B2C) e-marketplaces is still not there for business-to-business (B2B) markets, despite a considerable proportion of IT funds being spent on various B2B marketplaces, such as the GlobalNetXchange (GNX) and WorldWide Retail Exchange (WWRE), and B2B marketplaces are yet to become successful. The main reason for the lack of progress is that, in an electronic world, data must be correct and consistent (Sparks & Wagner, 2003). "B2B exchanges" (2002) claimed that a lack of common product language has reduced the success of B2B marketplaces.

According to Bakos (1998), e-marketplaces serve the following functions: (1) buyer demands seller products to achieve economies of scale and reduce bargaining asymmetry (Williamson, 1975); (2) protecting buyers and sellers from opportunistic behaviors of other participants on the market; (3) facilitating the market by reducing operating costs; (4) matching buyers and sellers (Malone, Yates, & Benjamin, 1987); and (5) providing an institutional infrastructure that enables the efficient functioning of the market. In all five categories, there is less of a legal guaranty than there is in a traditional business environment, and hence a heightened need for trust.

Accordingly, understanding what contributes to the success of these markets is crucial, not only because of their economic impact but also because of the high volatility in these markets. Of the over 1,500 online markets in 2000, only about 150 still exist today (Day, Fein, & Ruppersberger, 2003) and many of these still exist because of the nature of the relationships they have created (Dai & Kauffman, 2004). There are clearly many factors contributing to the success of some B2B e-markets in

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