



**Chapter IX**

# **Structuration Theory: Capturing the Complexity of Business-to-Business Intermediaries**

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This chapter argues that the three most commonly used perspectives in conducting research on business-to-business (B2B) eCommerce-transaction cost economics, electronic market hypothesis, and network analysis-have inadequately explained the unfolding nature of how B2B intermediaries are being employed in industry today. We argue that these perspectives are insufficient because they assume that technology is deterministic and thus not worthy of critical analysis. This chapter proposes structuration theory as an alternative perspective, which differs from the traditional perspectives in several ways: a) structuration theory examines the impact of B2B intermediaries not just on economic indicators of business success but on such process outcomes as mutual trust, coordination, innovation, and utilization of shared knowledge; b) it examines not just technology, but the alignment between technology, the interorganizational structure, and the nature of the task (e.g., basic procurement vs. collaboration); and c) it recognizes that no technology is simply installed, but rather brought into an organization through a series of adaptations that affect both the technology and the organization over time. Examples of how structuration theory can apply to research on B2B intermediaries are presented. Moreover, we use this perspective to suggest new research questions and methodologies that eCommerce researchers could

consider in the future.

This chapter is focused on business-to-business (B2B) intermediaries. B2B intermediaries can be viewed as extensions of interorganizational information systems (IOIS), which are defined as automated information systems shared by two or more organizations (Bakos, 1987; Cash and Konsynski, 1985; Johnston and Vitale, 1988). B2B intermediaries act as interorganizational intermediaries that match buyers and sellers, facilitate any-to-any online transactions, enable information sharing and collaboration, and provide the technological and institutional infrastructure to enable proper operation of these functions. With more than 1,000 currently established Internet-based B2B marketplaces (Bermudex et al., 2000), there is a substantial variation among B2B intermediaries (Choudhury, 1997). Being able to understand the impact of these variations on interorganizational relationships is essential for choosing among these intermediaries or predicting which intermediaries will be useful under different conditions. Attempts to address these issues solely based on the extant literature have been insufficient as explained in the next section.

## **LIMITATIONS IN THE EXTANT THEORIES FOR STUDYING B2B INTERMEDIARIES**

According to the Electronic Market Hypothesis (EMH), electronic markets should be the mechanism of choice for exchanging low-specificity goods and services among organizations in the presence of electronic communication technologies (Malone, Yates, and Benjamin, 1987). This is because the technology of electronic communication is presumed to lead to better coordination and lower transaction and search costs (Bakos, 1987), following Williamson's (1975) Transaction Cost Economics (TCE) paradigm. Recent evidence suggests that the EMH might be wrong; according to Dai and Kauffman (2000), the adoption of private transacting mechanisms suggests that interorganizational coordination mechanisms are not moving towards the pure market that the EMH predicts in the presence of IT. These authors have found many private aggregating and matching networks, which involve only a few participants, contrary to the EMH predictions. For example, fasturn.com (www.fasturn.com), a B2B intermediary in the low-specificity apparel industry, has recently introduced private, buyer-driven marketplaces, despite the existence of its own global many-to-many electronic marketplace. This suggests that, simply because coordination costs go down with a B2B intermediary, organizations will not necessarily opt for an electronic market,

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