Which Move to the Middle: Industry Consortia or Private Exchanges?

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ABSTRACT

The move-to-the-middle hypothesis has been used to predict firm structures, suggesting that firms will move to more outsourcing but from a reduced set of stable partners (Clemons et al., 1993). Extending this hypothesis to predict electronic marketplace structures, we suggest that both industry consortia and private exchanges represent a move to the middle by reducing transaction costs and risks. In industries with highly interdependent relationships, industry consortia may be more successful because of their reduction of coordination costs without corresponding increases in transaction risk. Within an industry, companies may choose to participate in both types of marketplaces. Product characteristics moderate the relationships between the transactions costs and risk and the type of marketplace.

Keywords: electronic markets; industry consortia; private exchanges; transaction cost economies

The choice isn’t just whether to participate in an exchange, but whether to go public, private or a combination of both.

~Elana Varon, CIO Magazine, September 2001

INTRODUCTION

Information technology connects buyers and suppliers in order to facilitate business transactions. Many public business-to-business (B2B) marketplace exchanges emerged in the late 1990s. These early exchanges were owned by third-party independent investors (e.g., e-steel.com in the steel industry). These were followed by exchanges created by industry consortia (e.g., Covisint in the automobile industry). Meanwhile, private exchanges continue to evolve. Some companies use traditional EDI capabilities to transact with their suppliers. Others set up extranets using Internet technology to link suppliers into their systems in order to improve communication and cross-company business processes.

B2B e-commerce grew from $406 billion in 2000 to more than $2.7 trillion in 2004. Over half of the B2B transactions were conducted through electronic marketplaces and the remaining under bilateral arrangements such as EDI.
and procurement extranets. Nearly 1,800 public marketplaces (1,507 independent and 287 industry-sponsored) were created, mostly between mid-1998 and mid-2000 (Le, 2002); about 400 were closed down or acquired by others (Le, 2002).

The facts indicate that many public B2B exchanges had difficulties surviving, while overall B2B commerce grew fast. This conflicting phenomenon in part may be due to the fact that many firms switched from independently sponsored public B2B exchanges to private B2B exchanges, or they were never comfortable using public exchanges, preferring, instead, to trade off-line until they could move into private B2B exchanges. Some firms did not embrace public B2B exchanges because of their concerns about information transparency (Zhu, 2004). However, there are scenarios in which firms can participate without jeopardizing sensitive information to transact non-strategic products (e.g., indirect or MRO products). Two fundamental questions exist:

• What are the differences among independently sponsored public B2B exchanges, industry consortia-owned B2B exchanges, and private B2B exchanges in terms of costs and risks?
• How can firms take advantage of these exchanges?

Our article presents a research framework that underscores the fundamental differences among the three types of electronic markets and provides insights into strategies that firms may use in order to participate in multiple types of exchanges without increasing associated costs and risks. Based on the tradeoffs between transaction risk and cost, we argue that industry consortia-sponsored electronic markets and firms’ own private exchanges will dominate, although they may be used for different types of products. We expect that independent public exchanges will not generate large market shares.

The article is organized as follows. The next section reviews relevant background, including information exchange technologies, public and private exchanges, and transaction cost economics. The third section discusses our proposed research model; the last section presents the conclusions, managerial implications, and future research.

BACKGROUND

Information Technologies for Information Exchange

A number of technologies facilitate information exchange. EDI has been used since the 1970s, but its diffusion was limited by its proprietary nature and requirements for Value-Added-Networks (VANs). Larger organizations are the major adopters of EDI. Small to medium-sized firms often do not use EDI because of costs (Dresner et al., 2001; Major, 1993; Newburger, 1993; Taylor, 1993). Firms usually are unable to achieve 100% compliance of EDI use.

Due to low implementation costs, the introduction of the Internet has created new opportunities for both large and small companies. Internet technology offers advantages such as open global network architecture, flat-pricing, cheap access, standardization, and low operating costs (Choi et al., 1997; Hruska, 1995; Kalakota & Whinston, 1996; Mak & Johnson, 1997). The Internet provides a feasible and convenient way for firms to exchange or share information with their suppliers and customers, either through exchanges in support of traditional intermediaries or directly between partners.

Internet-based electronic markets eventually may become a strategic necessity in some industries (Bakos, 1991b). Emerging Internet-based electronic markets have developed into new types of intermediaries, replacing traditional intermediaries (Bailey, 1998; Bakos, 1997; Chircu & Kauffman, 1999; Wigand & Benjamin, 1995). Electronic markets provide efficient market search or brokerage effects (Malone et al., 1987), improving efficiency, partnership, and negotiation opportunities (Ordanini, 2005). On the other hand, traditional intermediaries can...