



Chapter I

A Classification Scheme for B2B Exchanges and Implications for Interorganizational eCommerce

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The Internet is transforming and reshaping the nature of interorganizational commerce by enabling many new types of interfirm electronic exchanges. A B2B exchange is defined as a new organizational form residing in digital space that acts as an interfirm intermediary that enables firms to conduct and engage in any-to-any online relations. This chapter proposes a classification scheme for B2B exchanges that attempts to capture the chaos and complexity of today's online B2B relations. This typology integrates several theories of interfirm relations from the information systems, marketing, and organizational economics literatures to propose a parsimonious but comprehensive taxonomy that encompasses neutral markets (many-to-many) and dyadic relations (few-to-few), and also the concept of biased relations, monopolies (few-to-many) and monopsonies (many-to-few). This chapter discusses the implications of the proposed taxonomy for interorganizational eCommerce that ensue from the alternative types of B2B exchanges. Furthermore, the influence of product, organizational, and market characteristics on B2B

eCommerce is discussed, and guidelines for appropriate selection of exchange type and particular B2B exchanges are proposed.

INTRODUCTION

Intense competition in electronic markets and the growing number of web-based B2B marketplaces have made interorganizational eCommerce important and challenging. The notion of B2B eCommerce is not new, but its scale and scope has proliferated with the advent of B2B exchanges, which provide a facilitating structure for virtual relationships by enabling an easier identification and selection of suppliers and products, lower transaction costs, and more integrated supply-chain management compared to traditional channels (Dai and Kauffman, 2000). With over 1,000 currently established Internet B2B exchanges and an expected online transaction volume of over \$6 trillion by 2004 (Bermudex et al., 2000), a primary issue associated with research on B2B exchanges is their proper classification (Kaplan and Sawney, 2000). Most B2B exchanges have substantially different characteristics in terms of their industry and product focus, the type of relationships and power asymmetries between buyers and suppliers, and type of product sourcing. The complexity of B2B exchanges calls for a complete but parsimonious typology that can bring order to the chaotic space of B2B eCommerce. Before being able to make some systematic efforts to capture today's chaotic B2B environment and build new theories, an academic-oriented classification scheme should be introduced to link the existing literature into the new landscape. Hence, the primary purpose of this chapter is to establish a comprehensive and versatile typology to capture and explain the scope of today's B2B exchanges, illustrated by existing real-life examples.

An important application of B2B eCommerce has been the interorganizational information system (IOIS) through which multiple firms interact online to identify and select trading partners, negotiate, and execute business transactions (Bakos, 1991). Internet-based IOIS can be considered as an extension of traditional EDI-based systems that enable firms to transact without investments in dedicated assets. Nonetheless, perhaps the most important development of an IOIS is the web-based B2B exchange, which is *not* merely a more advanced information system that acts as an interfirm intermediary, but it also offers an *organizational arrangement* with certain institutional structures to coordinate interfirm relations. A B2B exchange is defined as a new organizational form residing in digital space that acts as an interfirm intermediary that enables firms to conduct any-to-any online rela-

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