

## Chapter 5.9

# The Potential of B2B Commerce for Competitive Advantage

**Ronan McIvor**

*University of Ulster, Northern Ireland*

**Paul Humphreys**

*University of Ulster, Northern Ireland*

### ABSTRACT

This chapter examines the implications of business-to-business (B2B) commerce for the buyer-supplier interface. Innovations in electronic commerce have a key role to play in managing inter-organizational networks of supply chain members. The evidence presented in this chapter illustrates that the Internet represents a powerful technology for commerce and communication at the buyer-supplier interface. Internet technologies are having a considerable impact on the communication patterns at the buyer-supplier interface. It is shown how electronic commerce technologies have the potential to create competitive advantage through radically changing the structure and interaction patterns at the buyer-supplier interface. The chapter identifies a number of areas where electronic commerce technologies can make a

contribution to the creation of competitive advantage. While the Internet offers ways for organizations to communicate and trade more effectively with their suppliers, and gives consumers higher levels of service and sophistication, it also poses major challenges to those within organizations who have to manage it. It is argued that closed network problems and the nature of buyer-supplier relations present major impediments to electronic commerce achieving its full strategic potential at the buyer-supplier interface.

### INTRODUCTION

The objective of this chapter is to examine the strategic implications of business-to-business (B2B) commerce for the buyer-supplier interface. In the past few decades, ICTs have deeply

affected the way business is performed and the way that organizations compete (Porter, 2001). In the business-to-business environment, inter-organizational information systems (IOSs) have been used since the 1970s to link one or more organizations to their customers or suppliers through private value added networks such as Electronic Data Interchange (EDI) (Archer & Yuan, 2000). Significant interest has grown in the potential use of the Internet at the buyer-supplier interface due to the potential benefits associated with the open systems protocol. By bringing together large numbers of buyers and suppliers and automating transactions, Internet-enabled markets expand the choices available to buyers, give suppliers access to new customers, and reduce transaction costs for all participants (Kaplan & Sawhney, 2000). Goldman Sachs estimates that online purchasing could save firms anything from 2% in the coal industry to perhaps 40% in electronic components. As a result of such cost savings, Goldman Sachs estimates, B2B commerce could increase the level of output in the developed economies by an average of 5% over time. More than half of that increase would come through within 10 years, an increase of 0.25% a year in the rate of growth over the next decade. Therefore, the importance of B2B commerce is increasing dramatically, either as private networks connecting cooperating organizations, or as networks linked through the Internet (Segev, Porra, & Roldan, 1997).

Innovations in electronic commerce have a key role to play in managing inter-organizational networks of supply chain members. The evolution of electronic commerce technologies is having a considerable impact on the communication patterns in supplier networks in many industries. Electronic commerce can reduce the costs of closely integrating buyers and suppliers, and through electronic networks firms can achieve an integration effect by tightly coupling processes at the interface between stages of the value chain (Benjamin, Malone, & Yates, 1986). Business-to-business e-commerce can reduce an organization's

costs in a number of ways. It reduces procurement costs, both by making it easier to find the lowest priced supplier and through efficiency gains. It is much less costly to place an order online, and there are likely to be fewer errors in orders and invoicing. Cisco Systems reports that a quarter of its orders used to have to be reworked because of errors in telephone and fax ordering systems. When it switched to online ordering, the error rate fell to 2%, saving the company \$500 million. Research carried out by Aberdeen (1999) has shown that B2B e-commerce can lead to average 5-10% price reductions for products and services through lower material and service costs, reductions in acquisition and order fulfillment cycle times of 50-70%, reductions in requisition processing costs of 70% per order, and improved inventory management practices. Much of the early literature on management information systems has examined the link between information technology and competitive advantage (Weill, 1992; Porter & Millar, 1985; McFarlan, 1984). This article focuses on how Internet technologies represent a powerful force in the evolution of the development of inter-organizational communication and trading. It is shown how electronic commerce technologies radically change the interaction patterns at the buyer-supplier interface by identifying a number of areas where Internet technologies can act as a source of competitive advantage. The effectiveness of electronic commerce implementations at the buyer-supplier interface is assessed. It is argued that closed network problems and the nature of buyer-supplier relations present major impediments to companies achieving the full potential of Internet technologies at the buyer-supplier interface.

### **THE EVOLUTION OF B2B COMMERCE**

Electronic business-to-business commerce has progressed through a number of phases of develop-

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