Chapter V

Perceived Barriers and Risks of E-Commerce Supply Chain Management Network Among SMEs in Australia and New Zealand

Pauline Ratnasingam, Central Missouri State University, USA

Abstract

Small to medium-sized enterprises (SMEs) have limited power in the Supply Chain Management Network (SCMN), as they come with limited resources to invest in advanced planning systems. This makes it difficult for them to cope with the latest challenges such as mass customization, which places higher demands on the company’s ability to attune its production planning to customers’ wishes and their suppliers in supply chain management. This chapter discusses the challenges (barriers and risks) that SMEs face today based on the findings of a survey that examined the extent of e-commerce adoption in Australia and New Zealand. The findings revealed how technical
issues impact two groups of adopters, namely leaders and followers. Leaders refer to businesses that are willing to take risks and invest in IT, whereas followers refer to businesses that were more conscious of their IT investments. We conclude the chapter with key findings and implications to practice.

**Introduction**

E-commerce is impacting the way SMEs conduct business. Supply chains in practically every industry are at the beginning of a startling reinvention triggered by the rise of the Internet. Since the 1980s and with the emergence of logistics management, Just in Time (JIT) manufacturing and distribution, quick response (QR), efficient consumer response (ECR), vendor-managed inventory (VMI), materials resource planning (MRP), and others form the basis of a comprehensive “Supply Chain Management Network” (SCMN). Moreover, the increasing global competition, changing government regulations, technology innovation, new ways of retailing, and changing consumer needs represent issues that impact supply chain activities. The information, decisions, and processes in the SCMN are moving towards the Internet, and are breaking old paradigms of inter-organizational boundaries. Yip (2000) suggests that the impact of the Internet is more multiplicative than additive. For example, the automotive industry is rapidly embracing the supply chain management activities. Ford and General Motors have partnered with Commerce One to develop the American Automotive Network Exchange (AANX), an online marketplace that allows smaller suppliers to use custom-designed, Web-enabled applications to conduct real-time transactions with multiple Ford and General Motors organizations including: purchasing, financing, engineering, production control, and logistics. Another example, Sun Microsystems developed Web-based collaborative planning tools as a way to strengthen strategic relationships with key customers. These tools allowed Sun to exchange forecast and product status information with customers on orders, shipments, and promotions, and helped Sun to manage their products through the entire lifecycle. This capability has resulted in substantial reductions in lead times and forecast availability, improved inventory turns, increased customer satisfaction, and more efficient supply chain operations. As the supply chain evolves, using the Internet to support tighter coordination between business partners means that all information transactions and decisions that are the essence of synchronized supply chains will flow through the Web. Today customers place increasing demand for customized products, reduced delivery time, and reduced price. They are demanding innovation and personalization of not only the products, but also the associated service and delivery. Together with the general development towards globalization, and shorter product lifecycles, SMEs are forced to take action within several areas to compete on price and flexibility. This calls for new investment in flexible production systems, increased use of outsourcing, and optimized supply chain (supply network) activities to improve external coordination, and to achieve fast flows of high-quality products to customers.

One important pre-condition for effective SCMN is the sharing of information among partners in the supply chain. However, there exist various obstacles for the smooth
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