Chapter 5

Role of Small and Medium Sized Enterprises in E–Supply Chain Management:
A Case Study

Fang Zhao
American University of Sharjah, UAE

ABSTRACT

This chapter studies the role that small and medium-sized enterprises (SMEs) play in the e-supply chain management. It has two objectives: (1) it explores how a SME embraces and implements electronic supply chain management (e-SCM) and the challenges facing it, and (2) it develops strategy to deal with the challenges. The chapter draws upon a case study of IFC Global Logistics (IFC), a small-to-medium-sized third party logistics provider. The case study illustrates how the SME embraces enabling technologies, the Internet, and modern business practices to integrate its supply chain management processes and to create for itself differentiation and a competitive advantage in the tough logistics industry. Based upon a literature review and the case study, the chapter explores effective strategy for SMEs in e-supply chain management.

INTRODUCTION

There is a general census amongst practitioners and academia that SMEs are playing an increasing important role in the technology-driven economy of both developed and developing countries. The old supply chains have evolved into electronically powered networked supply chains that rapidly link optimal supply chain members with the right com-

ponents, technology, and services for customers (McCormack et al., 2003). In this regard, information technology (IT) is an important enabler to achieve supply chain performance (Fawcett et al., 2007, Chandra et al., 2007, Yee, 2005). The issues in electronic supply chain management (e-SCM) take on a different perspective when the enterprises involved are in the SME sector. The literature review for the present study found that research in the current literature tends to focus more on e-supply chain management of large firms but not on SMEs from which they outsource raw materials, intermediates, parts, components and services (Sastry, 1999; Hong and Jeong, 2006). To fill the knowledge gap, this chapter studies the role of SMEs in the e-supply chain management. It has two objectives: (1) it explores how a SME embraces and implements e-SCM and the challenges facing it, and (2) it develops strategy to deal with the challenges.

The chapter starts with background information which provides definitions of the key concepts to be discussed in this chapter and reports the main themes in the study fields. Followed by that, the chapter presents a case study which illustrates how a SME embraces enabling technologies, the Internet, and modern business practices to integrate its supply chain management processes and to create for itself differentiation and a competitive advantage in the tough logistics industry. Based upon a literature review and the case study, the chapter explores effective strategy for SMEs in e-supply chain management. The chapter concludes with proposing future directions for research.

BACKGROUND

E-Supply Chain Management (e-SCM)

E-supply chain management is viewed as the most recent stage of development of the concept of supply chain management (Ross, 2003; Joh-

son, 2006). The focus of management is placed primarily on the application of the Internet to the SCM concept and SCM synchronization. From an operational perspective, there are two major activities in e-SCM: the flow of materials and the development of information systems. E-SCM is likely to offer competitive advantage in better lead times, customer service and supply chain synergy (Burgess, 1998, Nguyen, 2004) and therefore it represents an effective strategy for many manufacturers and service providers. Networked and multi-enterprise supply chains have become a popular organizational design. As Ross (2003, p. 11) describes, "SCM has evolved, through the application of e-business technologies, into a powerful strategic function capable of engendering radically new customer value propositions through the architecture of external, Internet-enabled collaborative channel partnerships". In this regard, e-supply chain management is concerned largely with the management of such "Internet-enabled collaborative channel partnerships" called e-collaboration (van Hoek, 2001).

e-SCM and E-Collaboration

Generally speaking, e-collaboration refers to the use of electronic technologies (like the Internet and/or Internet-based tools) among business partners beyond market transactions (Kock, 2007; Davis and Spekman, 2004).The term is often used in the context of supply chain. E-collaboration is identified as one of the new areas of optimizing the relationship between suppliers and original equipment manufacturers (OEM) via the Internet (Radjou, 2004). It is an Internet-supported, enterprise-spanning cooperation which is seen as crucial during the development and construction process (the so called e-engineering process) (Kersten et al., 2004). E-collaboration aims to facilitate coordination of various supply chain activities and decision-making processes. Therefore, the fundamental construct of e-SCM is to foster an e-collaboration environment where members in

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