Chapter 4.14
Translating Knowledge Management Practices into the Boundaries of Supply Chain

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ABSTRACT
This chapter aims to evaluate the application of knowledge management (KM) literature in supply chains. The underlying understanding derived from this evaluation can be used to devise a valid business strategy to encourage knowledge management practices in supply chains. The concept of a supply chain encompasses businesses organised around a common goal of delivering a product or service from the initial supplier to the end customers. In this respect, the importance of knowledge management within the boundaries of supply chain management has been iterated by many authors; some underline the strategic and tactical importance of knowledge management, whereas others focus on the advantages and tools used to create knowledge in supply chains. The difficulty of assessing knowledge management is twofold when considering supply chains—first, the underlying difficulty of locating the trail of knowledge creation in supply chains and secondly how this can be utilised to devise a business strategy. On close examination of the literature in this field, we can identify a salient need for the theoretical categorisation of existing theoretical frameworks of supply chain management (SCM) on KM-related practices. This chapter explicitly looks into three supply chains, namely learning chains, virtual chains and build-to-order supply chains, and the specific challenges that these create for knowledge management and devising a valid business strategy.

INTRODUCTION
In a supply chain, where the boundaries cannot be set easily, disseminating and sharing the knowl-
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edge between the members of the supply chain becomes of interest to academics and practitioners. Wang et al. (2008) acknowledge that research on knowledge management has been carried out on definition- and content-related aspects of SCM. However, in a rapidly changing environment it is also important to assess how these concepts and principles are translated into supply chains and their day-to-day operations. Several attempts in the literature have been made towards assessing the implications of knowledge management utilisation in the context of supply chains; however, an exhaustive literature review seems to be limited in its scope. This can be also evidenced by a study (Harry et al., 2007) which reflected on academic databases, such as the Elsevier online database, and noted that from a total 1500 supply chain-related articles only 149 referred to knowledge management and its practices within the supply chains. Given the limited range of the supply chain papers on knowledge management, it can be assumed that the nature of these papers and subject areas covered is dispersed in its scope. Therefore, some researchers when carrying out the literature review focus on specific areas of knowledge management in the supply chain management, rather than the application within the supply chains. Also found in the words of Harry et al. (2007:883) is the statement that “...there are only a few research papers that consider both knowledge management (KM) initiatives and the application of a knowledge management systems (KMS) written by academics and practitioners”. Hence, the aim of the chapter is similar in as much that it does not intend to give an exhaustive review on knowledge management or knowledge management systems; rather it focuses on knowledge management and its implications within the boundaries of supply chains, and how these impact on the overall business strategy. In an effort to accomplish this task, this chapter will first explore knowledge management and how it is embedded within the supply chain literature. Secondly, this assessment will allow us to answer the question of how these concepts can be transferred into a successful business strategy. Before we examine the impact of knowledge management to supply chain management, let us examine how these two seemingly relevant themes merge.

THE USE OF KNOWLEDGE MANAGEMENT WITHIN SUPPLY CHAIN BOUNDARIES

Knowledge management has been referred to as the backbone – and in some cases the lifeblood – of the supply chain (Desouza et al., 2003). This notion stems from the boundaries of supply chain which encompass several (sometimes globally dispersed) organisations gathered around delivering a common goal, a product or service. It becomes difficult to assess at what stage, or by which supply chain member, knowledge is generated and how this knowledge can be shared throughout the boundaries of the supply chain because knowledge management caters not only for creating knowledge, but also preserving, using and sharing it (Warkentin et al., 2001). Desouza et al. (2003) argue that a disruption in knowledge in any areas, or in one or more entities of supply chain members, will lead to disruption within the supply chain as a whole. As a result, knowledge management at a tactical and strategic level will increase its importance for a supply chain’s competitiveness.

In a supply chain, the dissemination of knowledge throughout requires knowledge flow from the initial supplier to the end customer. Hence, knowledge management resides within the boundaries of individuals, teams and sometimes in strategic business units of supply chains. The integration – or in other words, synchronisation – of knowledge becomes a difficult task to accomplish. In order to overcome the overstretching boundaries of supply chains (in some cases across different continents) to allow knowledge sharing, supply chains have invested in e-business applications such as cus-