

## Chapter 75

# Knowledge Leakage when SMEs Participate in Supply Chains: What Is It About and How Can It Occur?

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### ABSTRACT

*The advantages of sharing knowledge when participating in a Supply Chain (SC) are well established in the literature, but the challenge of knowledge leakage, and how to manage it, is still in its infancy. In order to increase the understanding of knowledge leakage, when SMEs participate in SCs, this study describes types of knowledge that may leak away, how they are valued, and how knowledge leakage can occur. The result includes two frameworks that also have shown to be potentially useful for examining the maturity of a specific SME with regard to knowledge leakages when participating in the SC.*

### INTRODUCTION

In order to remain competitive, knowledge is a critical resource for all types of companies, not least for small and medium-sized enterprises (SMEs) (e.g. Blomqvist, Hurmelina and Seppänen, 2005; Nunes, Annansingh and Eaglestone, 2006; Annansingh, 2012). Modern organizations must be proficient learners in order to survive. “The ability to learn faster than your competitors is your only lasting competitive advantage” as put by a HR manager in Sweden. Knowledge Management (KM) and Supply Chain Management (SCM) are two management concepts that aim to support the company in its efforts to efficiently meet the requirements of a fast changing world, in order to be competitive.

Creating value through supply chain integration has become a potential way to improve and secure a competitive advantage (Li, Ragu-Nathan, Ragu-Nathan and Rao, 2006). A Supply Chain (SC) includes tangible resources and assets, as well as intangibles, such as knowledge (Wu, 2008). The consequences of knowledge sharing and knowledge creation are tangible and include improved employee and customer satisfaction, as well as an enhanced image and increased share valuation (Coulson-Thomas, 2004). “Knowledge is becoming the only resource capable of offering competitive advantage and continued

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growth and prosperity for supply chain partners” (Wu, 2008, p. 241). This means that to achieve the goals associated with collaboration, for example, in SC, knowledge sharing is needed (Ritala, Olander Michailova and Husted, 2015). When working in a SC “... knowledge or experience leaking away from its origin may lead to a loss of competitive advantage for an organization” (Mohamed, Coles, Mynors, Chan, Grantham and Walsh, 2007, p. 456), but it can also be positive, in the form of knowledge spillover between cooperation partners (Ferdinand and Simm, 2007). Accordingly, organizations that are parts of SCs need to be aware of and prepared for knowledge leakage and its consequences for the collaboration and the business. This takes us back to KM.

Successful KM that contributes to improved organizational effectiveness requires that the appropriate knowledge is provided to those that need it, at the right time (Jennex, Smolni and Croasdell, 2007), and includes knowledge reuse and learning, i.e., knowledge creation. Accordingly, KM work in SMEs concerns “... the processes and structures provided in SMEs to support different knowledge processes, such as transfer, storage and creation.” (Durst and Edvardsson, 2012, pp. 879-880). Already in 2001, McAdam and Reid (2001) stated that KM was developed in and for large organizations to be subsequently applied in SMEs. Eleven years later, Durst and Edvardsson (2012) conclude that little has happened and that there is still a strong need for more research on KM in SMEs. However, despite the need of KM processes related to knowledge leakage and the fact that KM processes have intensively been studied, the study of knowledge leakage appears to be underdeveloped (Parker, 2012; Ahmad, Bousa and Scheepers, 2014; Durst, Aggestam and Aisenberg Ferenhof, 2015).

The goal of this study is to spread further light on knowledge leakage when SMEs participate in SCs or, more precisely, *what types of knowledge may leak away, how they are valued, and how knowledge leakage can occur*. From the perspective of the framework, proposed by Durst et al. (2015), to organize knowledge leakage research, this paper contributes to the conceptual “Interaction” domain. Furthermore, the paper’s scope is in line with the research directions proposed by Durst and Edvardsson (2012), in order to develop a greater understanding of knowledge management in SMEs. The paper uses the recommendation of the European Commission and defines a SME as a company that employs fewer than 250 persons and has an annual turnover not exceeding 50 million euros or an annual balance sheet not exceeding 43 million euros (the European Commission, 2003).

This paper aims to further increase the understanding of knowledge leakage when SMEs participate in SCs, and hence contributes to more efficient SCM as well as increased knowledge concerning knowledge leakage. To achieve this goal, an extensive literature review and an empirical study have been conducted. The empirical study included five SMEs and was performed as qualitative deep interviews. The results of this paper are

- A framework describing what types of knowledge have the potential to leak away when a SME participates in a SC and how SMEs value these different types of knowledge leakage
- A framework describing how knowledge leakage can occur from a SME when participating in a SC.

The work also shows the potentials for using the developed frameworks as analysis tools for examining the maturity of a specific SME concerning knowledge leakage when participating in a SC.

The paper is organized as follows; the next section briefly discussed the related literature. Then the method is described, followed by a section where the results are included. Finally, we present the conclusions as well as the theoretical and practical implications.

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