

# Chapter 66

## Optimising Customers as Knowledge Resources and Recipients: Cases in Small to Medium Sized Software Enterprises

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### **ABSTRACT**

*Undoubtedly, customers play an integral role in the Knowledge Management (KM) approach of small to medium sized software enterprises (SMEs); in fact the role of customer knowledge is reciprocal in nature. From an SME perspective, it is essential to identify customer knowledge that is valuable to the business and how this knowledge can be leveraged as an external knowledge resource. In doing this, consideration must be attributed to the knowledge activities (KAs), such as knowledge acquisition, codification, storage, maintenance, transfer, and creation, which utilise customer knowledge to facilitate organisational objectives such as new product development. The extent to which an SME effectively leverages customer knowledge directly impacts the customer. In an optimum situation, as knowledge recipients customers should be provided with a product or service that is fit for purpose based on their original knowledge contribution. Using a qualitative analysis approach in five Irish software SMEs, this chapter identifies how these organisations leverage their customers as external knowledge resources and the KAs, with particular emphasis on knowledge acquisition, in which customers play a part.*

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## INTRODUCTION

KM is a complex activity that has been the focus of organisations since the 1990s. While firms understand that managing what they know is important to their success, operationalising such an approach is a more difficult endeavour. While it has been argued that due to their size, KM is not a concern for smaller organisations, in the current economic climate, it is expected that a more formalised approach to KM allows the company to seize opportunities as they arise, and deal with environmental uncertainty more effectively. SMEs operating in high-tech sectors such as the software industry are typically reliant on specialist knowledge to help them build the right product with the objective of meeting customer needs. The nature of niche software markets means that products must be closely informed by customer requirements in order for the software product to be a success. The importance of understanding how smaller organisations manage knowledge has become vital to their success, however in the main; there remains a dearth of empirical research in SMEs in IS research. The very nature of SMEs means that they are wide open to market influence; small changes in market demand or economic climate can significantly impact the success and sometimes survival of an SME. According to Duh and Belak (2008) external sources of knowledge are very important for small business in the face of a changing knowledge environment. As a result developing links with external entities through trust networks may facilitate increased knowledge acquisition activities. This is important for SMEs as the impact of changing supplier, market, and customer activities requires smaller organisations to respond rapidly to the environment (Sparrow, 2000).

However, according to Ichijo *et al.* (1998), in order to achieve the benefits associated with KM, an organisation's approach should be formal in nature. SMEs need to take stock of their external knowledge resources i.e. customer knowledge,

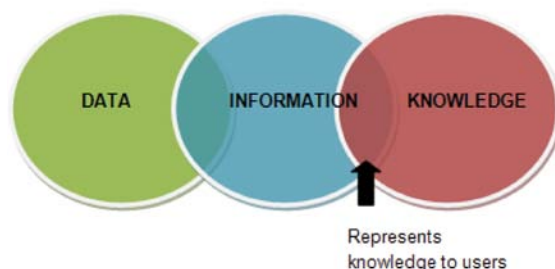
where it is stored and how it is used to improve competitiveness (Zapata-Cantu *et al.*, 2009). In addition, consideration must be attributed to the KAs, or component parts of the KM approach. By doing this, the organisation can identify where its strengths lie, by better understanding the type and extent to which customer knowledge is leveraged in terms of making the right product or service available to the right customer at the right time. This chapter concludes by assessing an SME's approach to KM with a view to better facilitating an organisation's ability to leverage customers as external knowledge resources while improving the product/service provided to the customer.

## DEFINING KNOWLEDGE TYPES

Defining data, information and knowledge as distinct and independent phenomena is an arduous endeavour. In particular it is noted that many authors use the terms information and knowledge interchangeably, those (Dennis, Earl, El Sawy, Huber) that considered organisational information processing in the 1970s, 1980s and early 1990s now focus their attentions on KM as an organisational strategy. Figure 1 represents data, information and knowledge as a continuum.

In Figure 1, it is evident that the extremes of each phenomenon are distinct however there is significant overlap between data/information and information/knowledge. According to Davenport

*Figure 1. Knowledge continuum (after Davenport and Prusak, 1998; Wurman, 2001)*



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