

## Chapter 4.17

# Social Software for Customer Knowledge Management

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### ABSTRACT

Social software is assuming a significant role in electronic business, increasingly referred to as e-business, and has been utilized recently on a growing scale by companies in customer relationship management. However, it is largely unclear at what levels firms should implement social software. This chapter addresses the gap by identifying the optimal level of social software deployment for a firm that plans to maximize its transactional benefits through the management of a customer knowledge base. The conclusion reached is that the optimal level of social software depends on a range of factors: for example, the initial volume of knowledge base, transaction benefits, and the estimates of the positive and negative effects of social software use. The chapter offers insights and guidance for business managers and practitioners.

### INTRODUCTION

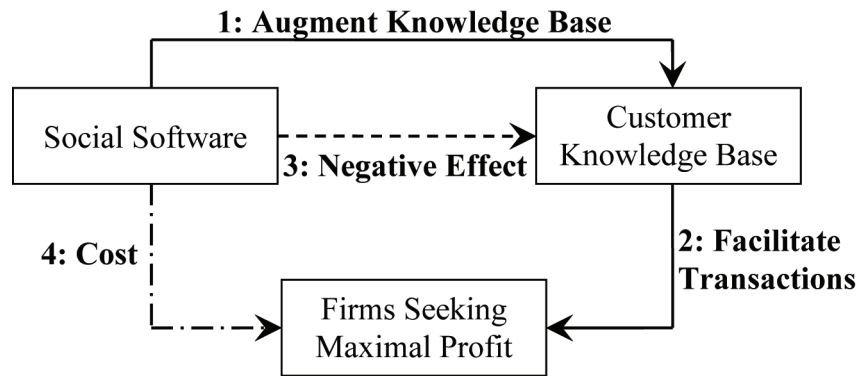
*Social software* is defined as computer software that “supports, extends, or derives added value from human social behavior” and includes “message-

boards, musical taste-sharing, photo-sharing, instant messaging, mailing lists, social networking” (Coates, 2005). In business contexts, social software is commonly referred to as *social and networking software* used by companies to organize internal and external communication. For instance, IBM launched Lotus Connections to compete with Microsoft’s SharePoint for the enterprise-wide social software market (Lynch, 2008).

The recent development of Web 2.0 technologies has created remarkable opportunities for Knowledge Management (KM). In particular, companies have recently started to apply social software for managing customer knowledge, maintaining good customer relationships, and enhancing customer satisfaction (Johnston, 2008). Applying social software on their electronic storefronts, firms can create virtual communities for customers to interact with each other and share information and knowledge about products and services. For instance, CircuitCity (2006) launched its online forum to provide better customer experiences and is partnering with IBM to explore the application of virtual worlds in business. Currently available Web 2.0 technologies enable firms to implement different types of social software, from the very basic ones, such as electronic bulletin boards, to

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*Figure 1. Four types of effects of social software implementation*



those with advanced features, including tagging, blogging, and wikis.

Although social software is gradually assuming a more essential role in e-business, it is still unclear at what level firms should implement social software. Since there exists a wide range of social software applications (including online forums, social tags, blogs, wikis, as well as Lotus Connections and Microsoft SharePoint), firms have to decide which one to implement on their electronic storefronts. This chapter seeks to address this gap by modeling and analyzing the relationship between social software and customer knowledge management. We maintain that social software dynamically influences customer knowledge bases and subsequently describe four types of direct and indirect effects of social software implementation on businesses, as shown in Figure 1. The first and second effects relate to the transactional benefits that firms can obtain by implementing social software to achieve effective customer knowledge management. For instance, social software can provide a platform for customers to interact with each other and acquire valuable information before completing their transactions and supplementing the deficiency of a “static” customer knowledge base. Therefore, social software can complement customer knowledge base by facilitating potential customers’ transactions. The third effect describes

the negative influence that social software may have on the customer knowledge base. Specifically, customers who are dissatisfied with their shopping experiences may impact the current knowledge base affecting the transactions of future potential customers. Finally, the fourth effect encompasses the costs that firms should incur from maintaining and managing social software.

The purpose of this analysis is to identify the best strategies to implement different types of social software as well as understand the tradeoffs for firms seeking maximal profits.

Specifically, in this chapter we would like to address the following three research questions:

**RQ1:** *When should firms employ social software to “dynamically” manage customer knowledge?* Most companies have built knowledge bases for “static” customer knowledge management. However, few of them have experiences in utilizing social software as effective tools of “dynamic” customer knowledge management. We are interested in the sufficient conditions for firms to migrate to “dynamic” customer knowledge management with social software.

**RQ2:** *What is the optimal level for firms to implement social software?* Based on different direct and indirect effects of social software on firms through customer knowledge management, we intend to explore the best level of social soft-

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