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# 1

## A Vision of Knowledge Networking

*Andreas Seufert, Andrea Back and Georg von Krogh*

Firms are increasingly recognizing that knowledge is their most important source of lasting competitive advantage. However the key to long-term competitive advantage is not to be found in the administration of existing knowledge, but in the ability constantly to generate new knowledge and develop new products and services.

### **Firms are increasingly knowledge based**

Rather than viewing knowledge management merely as a device for processing information, making decisions and solving problems, one should also see it as embracing the acquisition and creation of new knowledge. We believe that at least two criteria are crucial in this regard:

- Knowledge management should take a holistic view of knowledge – that is, it should integrate both explicit and tacit knowledge.
- Knowledge management should take account of where and how knowledge is created and transferred. Knowledge is an objective commodity that is transferable, independent of individuals and context.

On the basis of this mental model, firms often try to solve problems by attempting to improve their information flow by means of modern technologies such as intranet-based yellow pages, knowledge maps and information warehouses. The potential offered by innovative technologies for the mastery and distribution of explicit knowledge – that is, knowledge that is readily available verbally, in writing or electronically – is undisputed. However what is required is an integrated approach that includes both explicit and tacit knowledge.

### **Interwoven network systems**

In such systems there is a genuine sharing of experts' knowledge. Firms are neither fully independent nor wholly dependent. They do not lose their

legal identity: they retain their own culture and management structure and pursue their own strategies but they have to reduce their autonomy, share decision making, interconnect their organizational structure, jointly manage some activities or operations and open their company culture to outside influences. Assuming this will be the course that most firms will follow, we must from a knowledge management perspective perceive knowledge creation and transfer as taking place in the context of a network, rather than viewing it from a traditional organizational perspective. To this end we propose an integrated view of what we call knowledge networking.

Making effective use of knowledge requires a network in which the knowledge and experiences of employees are embedded and made available. It is of great importance to encourage knowledge creation and sharing processes and not merely the accumulation of data. Focusing only on explicit knowledge, as well as taking too narrow a view of work, learning and innovation, can result in functional and hierarchical barriers, barriers to customers, suppliers and business partners, or mental barriers that impede the generation, transfer and application of new knowledge. Such barriers can hinder the short- and long-term flow of knowledge which could prove detrimental to the firm's ability to innovate and learn. Based on integrated knowledge management, knowledge networking offers a conceptual framework for rethinking the knowledge management model. In this regard, knowledge barriers can be overcome by networking, and 'knowledge islands' should be cross-linked to stimulate the evolution, dissemination and application of knowledge.

### **Combining theory and practice**

Many of the chapters in this book are the result of research conducted at KnowledgeSource, University of St Gallen. The focus of the research is, from a theory-building perspective, on advancing scientific understanding of knowledge networks and, from a practical problem-solving perspective, on designing knowledge networks for growth. As will be explained in this book, the term knowledge networks encompasses facilitating conditions, knowledge processes and tools to support the management of knowledge in network structures. Consequently, the goal is not only to test and advance theoretical findings, but also to help solve concrete societal problems. The object of the research is not contained in purely technical systems, but rather in sociotechnical ones that are complex, multidimensional, have a social character and are difficult to study with traditional research methods, and therefore the researchers at KnowledgeSource have adopted an action research approach.

With action research, researchers and practitioners join forces to seek a new and practical orientation in a field of study. This involves testing theoretical suggestions by means of concrete actions. To this end a central feature of

the research is the holding of workshops, at which the research team and employees of the companies participating in the project (Hewlett-Packard, Lotus/IBM and Unilever) discuss their experiences. Rather than the traditional practice of researchers acting as observers and the objects of research acting as the observed, the workshops take the form of a dialogue between colleagues, each learning from and with the other. In this sense the group can be regarded as a knowledge network in itself. However the researchers do adopt the role of mediator by asking probing questions, pointing out possible problems and questioning traditional arguments. Between the workshops the participants review the results of the workshops, do further research and work on their individual assignments, as laid down in the project plan. Thus, a typical action research project consists of planning, execution, observation and reflection. Figure 1.1 illustrates our research design, based on action research.

Starting with the joint development of the first vision of knowledge networking, this model was validated and then further developed as a result of bilateral projects and discussions and workshops with visiting professors.<sup>1</sup> The collaboration between the researchers and the practitioners was given added stimulation by the two groups' different modes of learning and working. Whereas practitioners tend to accumulate knowledge on the basis of experience, researchers are more theory oriented and work on the level of

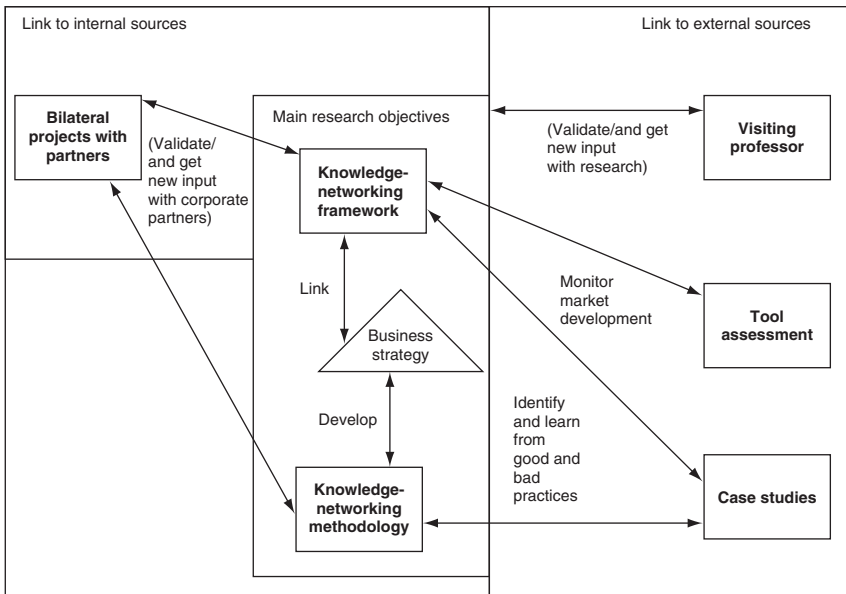


Figure 1.1 Research design of the project at KnowledgeSource

conceptualization and validation. Communication among the two groups is not limited to the workshops and bilateral projects, rather there is a continual exchange of news, intermediary results, estimates and opinions via a specially designed intranet.

In line with the research model, this book is structured according to two main themes. Chapters 2–6 cover the rationale for and theoretical thinking on the concept of knowledge networking. Chapters 7–13 then link theory to practice by describing selected findings of the case studies conducted during the bilateral projects.

#### **Note**

1. The visiting Professors were I. Nonaka (University of Hitotsubashi/University of Berkeley), M. Cusumano (Massachusetts Institute of Technology), H. Singh (Wharton University), and B. Galliers (London School of Economics).

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Notes: f=figure; n=note; t=table; **bold**=extended discussion or heading/  
word emphasized in main text.

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