KNOWLEDGE TRANSFUSION TO SME’S FROM EXTERNAL SOURCES – ECONOMICAL CONSIDERATIONS

Dr. Pekka Kess, University of Oulu, Finland
pekka.kess@oulu.fi

ABSTRACT

The article addresses the issues of knowledge management (KM) from the external knowledge points of view. Knowledge has been raised to be the key success factor or key resource to an organization of all sizes. Knowledge worker, knowledge intensive business services and knowledge society are commonly used nowadays. Nevertheless, it is hard to imagine that every organization can possess all necessary knowledge to guarantee successful operations. External knowledge and its effective use can help an organization overcome many difficulties at various stages of its life cycle. The underlying challenge is to define what external-knowledge form or shape an organization should use to improve the likelihood of business success. The initial findings and conclusion indicate the tendency for start-up companies to emphasize tacit knowledge more in order to help overcome business barriers. On the other hand, as a company progresses throughout its life cycle, it appears to rely its external knowledge in terms of explicit knowledge.

An interesting research question is how the company can value the external knowledge and how to pay for it. SMEs are typically short of financial resources. The cash flow does not necessary give room for large investments in external knowledge projects. The paper utilizes the earlier developed taxonomy of external knowledge and studies the various options of compensating the acquired knowledge for improving the business performance of the SMEs. The research utilizes multiple case studies and proposes a wider international quantitative research to draw a richer picture of the issue.

Keywords: Knowledge management, external knowledge, company life cycle, mentor, coach, guru, angel, politician, father
INTRODUCTION

Knowledge and KM have been cited as one key element of successful business and also have been considered to be an emerging aspect of the management paradigm in the 21st century (Hitt, 2000, Dess & Picken, 2000). However there has been and still is a lot of conceptual confusion (de Long & Seemann, 2000) about KM. “Whenever two people are talking about ‘knowledge management’ the breadth and complexity of the subject make it likely that the discussion is built on untested assumptions, different levels of analysis, varying levels of experience and different objectives.” (de Long & Seemann, 2000). The management disciplines and practices have developed in the area of KM significantly in the past decades. Pfeffer (1981) proposed that the organization itself should have within it the knowledge and the expertise necessary to solve their own problems…’ On the other hand he admits that there is a room for outside experts and subsequently added the following:

- the outside expert can permit power to be used to affect decisions in a somewhat less visible way,
- the outside expertise can serve to legitimate the decision reached and to provide an aura of rationality to the decision process.

KM caters to the critical issues of organizational adaptation, survival and competence in face of increasingly discontinuous environmental change. Essentially, it embodies organizational processes that seek synergistic combination of data and information processing capacity of information technologies, and the creative and innovative capacity of human beings (Malhotra 1997). This is a strategic view of KM that considers the synergy between technological and behavioral issues as necessary for survival in 'wicked environments.' The need for synergy of technological and human capabilities is based on the distinction between the 'old world of business' and the 'new world of business.' Within this view, the 'old world of business' is characterized by predictable environments in which focus is on prediction and optimization based efficiencies. This is the world of competence based on 'information' as the strategic asset and the emphasis is on controlling the behavior of organizational agents toward fulfillment of pre-specified organizational goals and objectives. In contrast, the 'new world of business' is characterized by high levels of uncertainty and inability to predict the future. Use of the information and control systems and compliance with pre-defined goals, objectives and best practices may not necessarily achieve long-term organizational competence. This is the
world of 're-everything', which challenges the assumptions underlying the 'accepted way of doing things.' This world needs the capability to understand the problems afresh given the changing environmental conditions. The focus is not only on finding the right answers but on finding the right questions. This world is contrasted from the 'old world' by its emphasis on 'doing the right thing' rather than 'doing things right.'

Strategic KM focuses on 'doing the right thing' in addition to the more operational view of 'doing things right.' Knowledge management can be seen as a framework within which the organization views all its processes as knowledge processes. In this view, all business processes involve creation, dissemination, renewal, and application of knowledge toward organizational sustenance and survival. Extensive use of web-based applications and e-learning throughout an organization reflects this argument. This concept embodies a transition from the recently popular concept of 'information value chain' to a 'knowledge value chain.' (Nonaka & Takeuchi, 1995) The knowledge value chain treats human systems as key components that engage in continuous assessment of information archived in the technological systems. In this view, 'best practices' are not implemented without active inquiry by the human actors. Human actors engage in an active process of sense making to continuously assess the effectiveness of 'best practices.' The underlying premise is that 'best practices' of yesterday may not be taken for granted as 'best practices' of today or tomorrow. Hence, double loop learning, unlearning and relearning processes need to be designed into the organizational business processes.

It is the role of KM to connect two components that make up the "who": knowledge owners and knowledge seekers. The knowledge of one is transferred to the mind of the other, so that a new decision can be made or a situation handled. Knowledge management provides a means to capture and store passing knowledge and broker it to the appropriate individuals. It is also critical to differentiate between different types of knowledge. One way to do so is to divide this term into tacit and explicit knowledge. Tacit knowledge is more hypothetical, subjective, personal and substantially more difficult to communicate. Tacit knowledge is the primary focus of many knowledge management initiatives, because it is the repository of an organization's most strategically valuable knowledge. The primary challenge of addressing explicit knowledge is managing its volume to ensure its relevance. A common deficiency facing organizations is information overload, as the levels of explicit knowledge become so overwhelming that it cannot be appropriately filtered. It is the management of explicit
knowledge on which most organizations are focused. But as organizations make advancements in knowledge management, they realize that managing tacit knowledge is even more strategic. The challenge of managing tacit knowledge is formulating it into a communicable form and distributing it to the knowledge seeker.

Nonaka & Takeuchi (1995) point out that human knowledge is created and expanded through social interaction between tacit knowledge and explicit knowledge. This interaction is called knowledge conversion that finds expression in four different modes: (1) from tacit knowledge to tacit knowledge (socialization), (2) from tacit knowledge to explicit knowledge (externalization), (3) from explicit knowledge to explicit knowledge (combination) and (4) from explicit knowledge to tacit knowledge (internalization). Socialization is a process of sharing experiences and thereby creating tacit knowledge such as shared mental models and technical skills. It yields what can be called “sympathized knowledge”. Externalization means a process of articulating tacit knowledge into explicit concepts and combination is a process of systematizing concepts (from different bodies of explicit knowledge) into a knowledge system. So, externalization outputs “conceptual knowledge” and combination gives “systemic knowledge”. A process of embodying explicit knowledge into tacit knowledge is internalization. It produces “operational knowledge”.

The typical knowledge seekers nowadays are the small start-ups such as high tech companies. They do possess only limited knowledge to ensure a healthy growth. Knowledge and competence even for some key areas of business might be external for long periods of time. The more unknown and turbulent the market, the bigger challenge there is. The problem is very serious for the new high tech companies, because they have to reach the big and unknown international market at very early stages. On the other hand, the companies that have experienced the business cycles (up and down) with various new and modified products/services also need to create, obtain or acquire, nurture and maintain necessary knowledge for future planning and strategies.

ORGANIZATIONS AND KNOWLEDGE

The continuously increasing intensity of companies to network has created a new possibility to knowledge sharing. Network is defined (Pikka et al, 2004) as the group of actors who change information and who have a common interest. Companies no longer compete alone
as autonomous entities, but rather as part of a network (Lambert et al. 1998, Christopher 1998). Naturally one company can be in several networks. Managerial doctrines have emphasized core competencies as a success factor in business. Today companies focus on their core competencies and by networking complement non-core competencies. Especially in the ICT-industry, networking has come a widely accepted strategic way of action. Scale, cost and quality are the paradigms where business is managed (Kolarik 1999, Pine 1993, Suri 1998, Womack & Jones 1996). According to Harrington (2000), the 21st century is bringing rapid innovation, driven by the continuing high-tech boom and expanding global markets from the last decade. Speed and agility are common requirements, not only for the ICT-firms, but also for the traditional industries, like the steel product. Collaboration covers besides traditional production, also research and development activities. Business networks, and today even more interesting phenomena in research world, social networks, are important factors in the regional development. For example, there is the evidence that historical development as well as the particular structure of the social networks in Silicon Valley have fostered relatively higher growth and development of the region (Castilla 2003).

To further relate KM needs to typical private companies, one very recent sub-discipline of the Knowledge Management is so called KIBS. Knowledge-intensive business services (KIBS) are expert companies that provide services to other companies and organizations. IT services, R&D services, technical consultancy, legal, financial and management consultancy, and marketing communications are typical KIBS industries. KIBS have aroused broad interest and several studies having indicated that they are active innovators, as well as facilitators and carriers of innovations of other companies. A futures perspective is essential from the viewpoint of innovation, and the study in hand intends to link this perspective to KIBS research. (Toivonen, 2004). One of the latest studies in this area has been the one from Toivonen (2004) and even that one takes the knowledge provided by these KIBS companies without any further categorizing than the list above.

Specifically, there are several ways of classifying external knowledge. Boisot (1998) considers knowledge as a business asset. His classification takes into account three dimensions: codification, abstraction, and diffusion. Ståhle & Grönroos (2000) classify knowledge on three knowledge environments: mechanistic, organic and dynamic. Lippitt (1973) was on same track much before the KM band wagon really started moving. His classification has roles of external experts like: Advocate, Expert, Trainer, Alternative
Identifier, Collaborator, Process Specialist, Fact-Finder, and Reflector. In addition, Savidge (1994) defined the company external knowledge resources as mentors, coaches, gurus and angels. These people in their roles support the management of any given company. The companies can utilize their information, skills, expertise, knowledge or competences to improve the strategic, tactical and operative performance.

**RESEARCH OBJECTIVES**

The overall goal of this research has been to conceptualize and define the external knowledge necessary, useful, and applicable for all companies during their different stages in the life cycle. Another objective has been to make a definition that is applicable for various needs including but not limiting to:

- defining the knowledge not available inside the company, but possibly available externally
- defining the methods for the external knowledge acquisition
- valuing the external knowledge assets.

To better understand the life-cycle stages in a typical business firm, the business growth model (Churchill and Lewis, 1983) has been applied. See Figure 1.

![Business growth model](image)

**Figure 1: Business growth model (Adapted from Churchill and Lewis, 1983)**
This research has also integrated the Savidge’s external knowledge model with the tacit and explicit knowledge (typically used to describe knowledge within the context of KM). See Figure 2. This Savidge’s model helps explain at the highest level of abstraction a good part of the knowledge space. However a new subset was identified as a politician. This describes the knowledge typical needed to deal with local, regional, national and even at broader level of public sector authorities and politicians. This kind of knowledge in practice is useful in

- finding the most affordable site for business
- finding the least red tape in any business operation
- finding the way through the labyrinths of various services that should help the business.

![Diagram showing external knowledge model]

Figure 2: External knowledge model

ANALYSIS AND DISCUSSION

Initially, the research findings indicated the tendency for start-up companies to emphasize tacit knowledge more— use of mentor and politician— in order to help overcome business barriers. These barriers take place at the entry stage of a business unit, including regulatory requirements, competition, labor markets, supplier capability, consumer behavior, etc. This knowledge is quite critical since most of start-up companies fail within 6 months of operation.
On the hand, as a company progresses throughout its life cycle, it appeared to rely its external knowledge in terms of guru and coach. This implied more explicit knowledge so that they could likely sustain their business success, and possibly continue to grow in the future. This may include the market and technology trends, the consumer’s future spending powers, the political climate on free trades, etc. Knowledge on possible spin-off businesses or joint venture capital with prospective partners are valuable and are likely obtained through guru and coach (and less likely from mentor or politician). Included in the need to have either coach or guru are the knowledge on existing and future culture of an organization. In addition, both coach and guru likely inspire confidence and trust.

The potential benefit of the proposed framework is to help the preparation by a firm in which source of external knowledge needed or required. See Figure 3 for the proposed framework for managing external knowledge.

![Figure 3: Proposed framework for external KM](image-url)
The value of the external knowledge is difficult to assess. When it come to doing business with knowledge like with the KIBS (Knowledge Intensive Business Services) the right price is achieved when the seller is willing to sell and the buyer is willing to buy.

With the developed external knowledge taxonomy the ways in which the external knowledge is valued and compensated can vary significantly as presented in the Table 1.

**Table 1: Proposed framework for compensating the external knowledge**

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<th>External knowledge class</th>
<th>Compensation mechanisms</th>
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| Mentor                   | • Work with the protégé on daily bases and remunerated accordingly  
                            | • Work with the management team/board on daily bases and remunerated accordingly  
                            | • Work as a board member and compensation as shares or stock options and the real compensation comes with the increased value of the business  
                            | • Some mentors work as volunteers and do not expect any remuneration |
| Coach                    | • Fixed price projects  
                            | • Work with the company / management team / board on daily bases and remunerated accordingly  
                            | • Pay per performance i.e. the payment is dependent on the results achieved with the help from the coach |
| Guru                     | • Fixed price projects  
                            | • Work with the management team/board on daily bases and remunerated accordingly  
                            | • Pay per performance i.e. the payment is dependent on the results achieved with the help from the guru |
| Angel                    | • Interest on the money  
                            | • Work as a board member and compensation as shares or stock options and the real compensation comes with the increased value of the business |
| Politician | • Rarely there is such relation that requires formal payments – politicians tend to build networks where everybody at a time is giving and receiving some valuable information or knowledge |
| Father     | • Some family members work as volunteers and do not expect any remuneration  
• The joy of the success of the family member is often enough  
• Work as a board member and compensation as shares or stock options and the real compensation comes with the increased value of the business |

**CONCLUSIONS AND FURTHER STUDIES**

In conclusion, the paper presents a proposed framework to help manage external knowledge. It includes external knowledge categories of: politician, mentor, angel, coach, father and guru.

The continuation of the research work means this approach will later be enhanced with further data from Asia, which still has a minority role. The first interviews in Thailand indicate that the family ownership and family traditions are much stronger in business culture than it is in Finland. This even created the new dimension – the father - to the earlier version of external knowledge taxonomy. With the developed model it is possible to launch comparative studies how successful and not to successful companies have used external knowledge and how the collaboration between the knowledge owners and knowledge seekers can be beneficial in various phases of a new business. The future research can also bring light into the question whether entrepreneurs and managers in various countries – and in our case especially in Finland, US and Thailand – can learn from each other about using external knowledge for business benefits.
REFERENCES


