

Learning and knowledge development in a regional strategic networks: a conceptual approach

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ABSTRACT

This study will investigate factors influencing learning and knowledge development in regional strategic networks. A regional Swedish network, Z-group, will be the subject of investigation. The approach will center on the assessment of knowledge development by studying changes in organizational routines. Some theoretical aspects of routines and learning are presented here that will be used as a starting point for the study.

INTRODUCTION

In a world of constant change, learning and knowledge development will always be a necessary tool for firms to improve their odds for survival. New developments create a need for learning, and at the same time, learning is a driving force in development (Håkansson and Johanson 2001). While the availability of resources is often similar among competing firms, what differs is the way these resources are combined and used. Competitive advantage is all about using resources more creatively and intelligently than competitors. In a competitive environment, firms that aspire to maintain and improve their positions can therefore be expected to strive for greater knowledge development. They will search for new knowledge and hopefully achieve a learning process that facilitates the implementation of the new knowledge in the organization.

The network concept describes firms as being embedded in networks of relations between actors, activities and resources (Håkansson and Snehota 1989). In addition to this, a number of potential relationships may exist, for each actor is a potential collaborative partner.

Firms may also take part in more organized networks, created with a strategic purpose in mind, named strategic networks. Strategic networks are “long-term, purposeful arrangements among distinct, but related for-profit organizations” (Jarillo 1988, p. 32). These networks are planned, and the actors are identified, which gives the strategic network a defined border (Cook and Emerson 1978).

These strategic networks have different origins and characteristics. One particular type is the cooperative strategic network established to promote regional development. These

networks often receive some financial assistance by way of regional or governmental funding and aim to stimulate cooperation between companies in a particular geographic region. The underlying idea held by the founder is that cooperation will strengthen the participants in their strive for survival and growth, but what will the actual outcome be? To what extent will they learn from other firms? Will it be possible to observe the results in alterations in their routines?

In a sparsely populated region in the middle of Sweden, 31 industrial companies take part in a regional strategic network called ZGroup. ZGroup was founded in 1998 with help from regional governmental funds and funds provided by the European Union. The group consists of small to medium-sized businesses, some of which are family firms. They represent many different business areas and thus different technologies and business practices. The study will investigate the outcomes of their membership in the Z-Group for the participating firms, focusing on learning effects and, in particular, if the firms have made any major changes in their routines, due to their experiences with this strategic network. The objective is to develop the existing theories for strategic networks, while focusing on learning. The study may also provide guidelines for governmental institutions and others who set up and develop similar networks in order to support local firms.

THEORIES ON LEARNING, KNOWLEDGE DEVELOPMENT AND ROUTINES THAT WILL BE USED AS A STARTING POINT FOR THE STUDY

Learning and knowledge development in business relationships

It is very demanding for a firm to develop all the skills they require by themselves. The alternative is to learn from others. Important sources of knowledge are network relations. Learning processes in relationships may follow a strategic plan, but may also take place spontaneously in daily work. "Business relationships arise through learning processes" (Håkansson and Johanson 2001, p.5). Learning processes make the difference between independent market actions and business relationships. The parties gain knowledge about each other and modify their routines in order to decrease transaction costs. Håkansson and Johanson have divided this process into three phases, with an increasing degree of learning and adaptations. They stress that the steps are not

necessarily taken in this order, but state that it seems to be an advantage for firms to gradually increase their cooperation over time. There will, however, be situations when learning takes place, but without causing any effect on the integration between the firms.

Firms learn about one another and, over time, develop a mutual desire for continuous cooperation. They modify routines for business transactions in order to achieve smoother processes and, at the cost of increased interdependency, they are able to decrease transaction costs.

New knowledge is achieved based on the experience gained from their interaction. The two firms will begin to modify their production routines if a joint approach can be shown to improve their performance. The price is once again increased interdependency.

More long-term coordination of activity systems are implemented based on earlier experience. "This kind of relationships may develop into quasi-organizations in which the activity systems linking two firms are more closely coordinated with each other than they are with the firms other activities."

This model concerns the relationship with one particular business partner, but Håkansson and Johanson state that such knowledge may be assumed to be applicable in similar relationships. Since a firm has several business relationships, synchronizing routines may be a way of coordinating business activities between a set of firms. According to Håkansson and Johanson (2001), this may be a key type of business network learning.

Exposure to different types of situations and knowledge is generally considered favorable for learning. To various degrees, new knowledge may differ from the knowledge possessed previously by the firm. Argyris and Schön (1978) use a distinction between single-loop and double-loop learning for this difference. Depending on the difference, new knowledge will have a varying influence on firm routines.

Having different kinds of business relationships should promote higher-order learning. However, entering into a relationship can be considered as making an investment. Since firms have a limited amount of resources for these kinds of investments, they normally prefer to enter into similar, or complementary relationships, rather than approaching something completely unknown. In a strategic network like Z-Group, with members

from many different business areas, it is expected that a firm will primarily select only a few other members as potential partners. However, as Granovetter (1973) has shown, there may also be important strengths in having weak ties to other firms.

Håkansson, Huysman and von Raesfeld Meijer (2001) point out that learning is normally associated with teaching and that both aspects may be carried out more or less intentionally. They stress that teaching may be used as a way of influencing and governing the environment of a relationship in a certain direction. One aspect, influencing the level of learning that is achieved in a relationship within a strategic network like Z-Group, may therefore be the actors willingness to teach.

In a dyadic setting, Håkansson, Havila and Pedersen (1999) identify two groups of factors influencing learning:

1. The characteristics of the two parties, their intent with regard to the relationship and their competency in learning and teaching.
2. The relationship itself, excluding learning, for instance, the type of products or services involved, duration and content.

They stress however, that the context, defined as “the directly connected business relationships of the parties”, can be seen as a part of the focal relationship. Interaction in one relationship may be affected by interaction in some other relationship. There may therefore be limitations on possible cooperation within a strategic network like ZGroup due to relationships and liabilities external to the strategic network.

Resources and Routines

A firm possesses many different kinds of resources; they are in themselves essentially passive and fragmented, but are activated as the firm interacts with others (Ford, Håkansson and Johanson, 1985). In relation to a specific actor, these resources will be more or less specific and of more or less value. Relationships may serve the purpose of developing resources or creating access to resources.

Resources require coordination. Grant (1991, p.122) argues that the firm’s ability to utilize resources will be manifested in organizational routines, “the organization itself is a huge network of routines”. Nelson and Winter (1982, p. 98) characterize routines as “organizational memory”. They argue that (p. 104) “skills, organization and technology are intimately intertwined in a functioning routine, and it is difficult to say exactly where one aspect ends and another begins”. Levitt and March (1988, p.319) view

organizational learning as “routine-based, history-dependent, and target-oriented”. They see organizations as learning “by encoding inferences from history into routines that guide behavior”. Organizational behavior can therefore be seen as being based on routines to a major extent.

Organizational learning is not the same as individual learning, although organizations learn through the experiences and actions of individuals (Agyris and Schön, 1978). Håkansson and Johanson (2001) claim that organizational learning occurs when the routines of the organization are modified. This may be the result when a firm interacts with its environment. A change in routines will be equivalent to organizational double-loop learning (Kim, 1993). This approach to organizational learning will be used for the study. Learning effects will be evaluated, focusing on how firm routines have been affected by the firm’s membership in Z-Group.

Routines legitimize actions. They are not connected to particular individuals, but may be affected and changed by individual influence. Learning, as well as routines, may therefore be conceived as a process rather than as an outcome. Routines are often defined as a wide concept, comprising anything from formal rules to attitudes. In the study, for practical purposes, the approach will be limited to the rules and methods of working that can be observed in working procedures within and between firms. Some changes will not result in improvements since mistakes can be made, but such evaluations will be left to the firm’s representatives. The study is not aiming at a normative approach since adaptations that seem unquestionable to an external observer may be impossible to carry out for internal “political” reasons. “Fear of breaking the truce is, in general, a powerful force tending to hold organizations on the path of relatively inflexible routines” (Nelson and Winter, 1982).

Organizations learn, often by way of trial and error, and, over time, they develop an identity based on their unique profile of competency. The organization will be shaped by the interplay between internal and external factors (Kimberley 1987). In this process of learning and development, routines are continuously developed and revised. Routines used frequently will have a greater potential for improvement. This may, in turn, result in a more favorable outcome whenever these routines are used and this may increase their frequency of use even further. This is normally a positive development, but there may be negative aspects if the routines in question are in fact inferior to other

procedures that have not been sufficiently tried. This constitutes the “competency trap” described by Levitt and March (1988, p.322).

Naturally, organizations differ in their use of formal routines to guide and support their work procedures. Exposure to other firms and their particular manner of doing business, may increase the possibility that other ways of organizing work will be attempted. Firms learn from their own experiences as well as from the experiences of other organizations (Levitt and March 1988). Strategic networks present opportunities for new experiences that could affect organizational routines in the participating firms. The study will therefore explore the ways new relationships have developed, and/or old relationships have been changed as a result of the firm becoming a member of ZGroup. The outcome may then be compared with the potential set of new relationships that has been available, considering for what reasons new relationships have, or have not been created, and what kind of knowledge development this has resulted in.

Routines often represent tacit knowledge (Polanyi 1969), knowledge that has been created through practical experiences. It is difficult to articulate and therefore hard to transfer or imitate other than through learning by doing. It is moreover often associated with a certain context. On the other hand, the opposite pole, explicit knowledge, is fairly easy to share with others. However, Polanyi (1969, p. 144) stresses that “while tacit knowledge can be possessed by itself, explicit knowledge must rely on being tacitly understood and applied. Hence all knowledge is either tacit or rooted in tacit knowledge”. The same knowledge can be more tacit for some people than for others (Nelson and Winter, 1982).

Nonaka (1991) identifies four different ways of creating new knowledge in an organization:

1. From Tacit to Tacit

An individual can, through observation, imitation and practice, learn tacit knowledge from others and become “socialized” into the craft.

2. From Explicit to Explicit

Explicit knowledge can be aggregated and analyzed.

3. From Tacit to Explicit

Tacit knowledge may be articulated and possible to share, often in a symbolic form.

4. From Explicit to Tacit

When explicit knowledge is internalized and complements tacit knowledge

In a knowledge creating firm, these different patterns will exist “in dynamic interaction” (Nonaka 1991, p.99). A shared context will also have a positive effect on communication and possibilities for learning. Nonaka writes about internal processes, but this classification should be applicable to interacting situations as well.

Firms differ in the degree of tacit/explicit knowledge that is associated with their working procedures. It can therefore be expected that it will be easier for some members of a strategic network to share their knowledge and routines with some firms than for others. Nelson and Winter (1982, p.80-82) have identified three determinants that may limit the articulation of knowledge:

- The available time for information transfer through communication
- The limited casual depth of the knowledge, what Polanyi (1969, p.4) expressed as “we know more than we can tell”.
- The coherence aspect – the whole versus the parts. It is hard to learn how to ride a bike from reading an instruction only.

Finally, they emphasize that “costs matter” in deciding whether a tacit knowledge can be made explicit or not.

Eriksson and Hohenthal (2001) state that if a relationship is characterized by a technology that is largely explicit, it will be relatively easy for a firm to change partners since their requests can be articulated explicitly and thereby made clear to a new partner. Exchange based on tacit knowledge will, on the other hand, demand more close and frequent forms of cooperation. The counterpart will thereby be harder to switch. The type of knowledge that characterizes a relationship will thus be an important factor in explaining how replaceable a counterpart is and how difficult it is to transfer knowledge.

Another aspect influencing learning ability is the absorptive capacity of the learning organization (Cohen and Levinthal 1990), described as “the firms’ ability to value, internalize and utilize new knowledge”. They regard this as being related to the firm’s prior knowledge in that area.

In the study, the actors will be characterized in terms of the kind of knowledge that is associated with their business activities. This will allow an evaluation of the extent to

which this has affected their achievements in learning and teaching in the strategic network.

THE STUDY

The purpose of the study is to achieve a more profound understanding of how small and medium-sized firms experience the potential for learning in a regional strategic network. What conditions and driving forces influence their learning processes? What has been achieved so far within Z-Group? Have they entered into any new relationships with members of Z-Group and has their membership in Z-Group affected their routines due to learning effects?

The method of investigation employed will be a qualitative approach. Leading actors within the companies will be contacted for semi-structured interviews based on some major themes. The themes will be:

- A description of their own business.
- Their major relationships with other actors within and outside the regional network Z-Group, activities and exchanges.
- Why they decided to join Z-Group.
- Their experiences from participating in Z-Group, in particular in terms of learning effects and changes in routines.
- How they look upon future collaboration with members of Z-Group.

Secondary sources in the form of written materials will also be used, when available.

The study is presently in a start-up phase, so no results can be presented at this time.

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