Learning in Benchmarking Networks[1]

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Abstract

The chapter contains a theoretical and empirical study of benchmarking in networks as a tool for process improvements. Benchmarking is a widely spread method used by firms all over the world and has proven to be a useful tool for process improvements, but it is not only a method to trigger improvement. It is also a rich source for learning, something that is elaborated in Karlöf (2000). A major share of possible sources for learning is to be found outside of the specific firm, e.g. in customer and supply markets as well as elsewhere (Christopher et al, 1991). Actors in such markets possess resources and, furthermore, they are often embedded in network-like structures.

Learning from others in network contexts could appear in many different settings: in every-day business transactions, in field visits as well as in more organized learning settings, which could range from formal alliances to chat-groups on the Internet. Other possibilities include networks of people coming together to discuss and learn about a specific issue, as well as the creation of various communities of practice and so forth.

In this chapter we look at one specific learning format, namely a network of purchasing managers who have created a benchmarking team, focusing on learning about supplier evaluation and supplier development. The results of the network were successful as all participating firms were satisfied with the cooperation and as a number of improvements in their firms were implemented. Further more, the participants decided to continue their cooperation at the end of the project.

Introduction

Purchasing is an area that has undergone rapid development over the last ten years and purchasing as an activity has become more professional (e.g. Axelsson, 1998). Among the trends that have been observed we see supply base reduction, early involvement of suppliers in product development etc. (e.g. Hines, 1994; Lamming, 1993). The use of total quality management, TQM, (c.f. Sandholm, 1997) is also widely spread. When working with TQM a firm strives for continuous improvements, zero defects and increased quality in the firms' processes. In this work, benchmarking is one important activity.

Learning is another area that is and has been much in focus during at least the last decade. There is always a need for renewal in companies in order to stay competitive. To be able to take advantage of the new purchasing concepts, firms and people within firms need to learn. It is a question of learning new techniques and methods as well as learning new concepts and theories.

Apart from why individuals or organisation learn, continuous learning is very important because of how complex and dynamic the world is today. It is not enough to learn for sake of learning. It is also a question of introducing new technology and the consequences that this

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technology will have on the development of new and existing products and services. One could say that learning is something that applies to the market, the product and the service. Håkansson and Johansson (in Håkansson, 2001) make this approach clear when they say:

> *"There seems to be general agreement that rapid internationalisation and technical development are changing this already complex business landscape dramatically" (p.1)*

The overall discussion of collaboration between companies concerns the importance of the knowledge of the staff, and how this enables people to work as problem solvers. I.e., is not just about the central company, every employee needs to have general knowledge of the business to increase customer value. Also a major share of possible sources of learning is found outside of the firm (Christopher et al, 1991). Therefore, the company needs to see the whole value chain and not just focus on its own domain. Even though individual competence is very important, the aggregated competence the network holds plays a major role in the value chain's strengths and weaknesses.

Learning is, or should be, one of the main interests to organisation of today. Learning processes has never been more important because organisations need a way to seek new opportunities to maintain or increase competitive advantage. It should be of great interest to a company to constantly increase customer value irrespective of products or service offered by the company. Certainly it is possible to use concept as TQM, reengineering etc. to become a better organisation. But that does not capture the whole complexity of the situation. In our case, it is a question of learning and the complexity of learning within the organisation and in collaboration with others, in a network setting.

This paper investigates the use of benchmarking (c.f. Cali, 1993; Zairi & Hutton, 1995) in a network context in order to increase knowledge about purchasing and supplier development. The aim is to, via learning about new practices, improve functions and processes in the firms involved. The process could be labelled benchlearning (Karlöf, 2000) and is illustrated by an empirical case from the Gnosjö region. First various aspects of learning are discussed. Then follows a discussion about benchmarking/benchlearning. Thereafter, network theory is introduced as a tool to analyse this kind of network. After the theoretical frame of reference, the case is described and analysed.

Frame of reference

Learning

So what is learning and why is learning so important? Is it possible to define such a complex phenomenon? According to Eskildsen et al. (1999) an organisation that wants to accomplish excellence in business needs to create what is called a "change-oriented environment" where the employees' creativeness is nurtured, developed and sustained. This is made possible by education and training, involvement and teamwork. It is therefore very important that organisations learn constantly. If we accept the view that every single firm only controls a minor part of all possible resources, the question for collaborative learning is a natural one. If we, furthermore, accept the view that many markets appear like networks with dependencies and connections between relationships and structural embeddedness, we come very close to saying that network learning is a key issue. Therefore we think that learning has to be more focused on working in networks and collaborating with others, and to be more decentralised instead of working in rigid organisational structures, which has been the dominant method in the last century (Ellström in Backlund et al, 2001). What Ellström means is that learning should not only be seen as important from a production economy perspective, it is also an interesting question for the development of learning and competence. One could say that one of the most significant factors to companies to retain their competitive advantage is to keep

the organisation flexible and open for new ideas. Planning, fixed narrowly defined roles, and rules should be replaced by what is captured in words like integration, process and innovation. It is important to actively absorb knowledge from the network.

Skills training vs. conceptual learning

Competence is a multi-dimensional concept and can be seen as the outcome of learning. In its nature competence can be individual-, group- and organisational-related (Sjöstrand & Holmberg, 1992; Hansson, 1991). Consequently, both organisations and individuals can learn (Axelsson, 1996b; Wolvén, 2001). But we must keep in mind that organisational learning is a metaphor dealing with aggregated individual knowledge in organisations or in those networks they are involved in. One position would be that it is always individuals who learn, but to some extent they do this in an organisational context and when they learn about new processes and procedures and implement them, they make the organisation change its behaviour, indicating organisational learning. We do not need to solve that dispute here, though.

Another important issue is to see learning in both a long and short-term perspective. It is about knowledge, skills, attitudes and social behaviour, i.e. the nature of learning. Some say that learning has to deal with two things; Firstly, it is about how to carry out things i.e. "know how". There are always a lot of skills that need to be learnt to perform every day activities. Secondly, it is about reification. It could be said that there are always some models or thoughts, but never completed solutions, (Nonaka & Takeucyi, 1995). This has to do with conceptual frameworks and theories that are learnt.

A similar but still different approach is the one offered by Argyris and Schön (1978). They define learning in an organisation as the capability to handle mistakes. Argyris and Schön distinguish between single-loop and double-loop learning. Single-loop learning is people's capability to solve a specific problem without trying to find the underlying problem. One tackles only the symptom without thinking of what actually caused the problem. Double-loop learning questions why something happens and searches for a solution to the underlying cause of the problem. It is important to reflect over why one solution is chosen instead of the other. Argyris and Schön theorise that single-loop learning is a threat to the organisation because it produces incompetence, while double-loop can be taught to all individuals in the organisation and make the company more competent. It is very important to ensure conscious learning in whole company. History and tradition are very important issues for organisations and their members, and people within the organisation discriminate because of this previous knowledge. This can result in the organisational member getting the wrong impression of reality. Stopford (in Dierkes et al, 2001), says that the existing frame of reference tends to limit what people see to what they have either been thinking in the past to see or what the have either been trained to see or what accords with their prior experience. People are socialised in different situations.

What we see is a notion of the need to learn both improved skills in order to improve everyday business and concepts to prepare for improved ways of understanding contexts of various types (Sandberg & Targama, 1998). This calls for a duality between change and stability. From a network point of view it is likely that a lot of everyday learning goes on in established buyer-customer relationships but gradually these change into something different. At the same time influences from other networks could influence and cause complementary gradual changes or create more dramatic ones. Håkansson and Johanson (2001) describe network learning in three phases. The first phase could be described as when one company understands another company's will and ability to maintain earlier relations. Because of this knowledge, or just because companies understand or perceive another company's willingness to cooperate, costs will often go down. The second phase of learning is when both companies start to modify routines that regulate production. What happens is that the companies begin to trust each other because of the integration between the companies? The third phase has to do with closer relations, i.e. joint R&D departments etc. It can be both the development of

products and processes. It can lead to ad-hoc organisation between companies. Håkansson and Johnson say that it is not necessary to follow these phases, i.e. to go from 1 to 3 in that specific order, but anyhow they recommend companies to start on a small scale so they will not loose control of the process. It is important to be convinced that the partner company will work in the best interest for the whole relationship, not just for its own benefit, it is or should be a win-win situation. Only then, the learning process will be optimal. An organisation interacts with several networks and it is the general belief that a variety of contacts stimulate learning. Wikström and Norman (1992) support this kind of teamwork. They emphasize very strongly that even if companies interact with each other and try to work for learning organisations, people will never learn if the process does not have the full support of management.

Organisational and collective learning

The most important thing for organisations if they really want to learn something, is to work for collective learning on all levels of company (Senge, 1990). Learning organisation try constantly to improve their capacity to retain a better end result. Many organisations, though, suffer badly because they lack the capacity to learn. According to Senge (1990:12)

> *"At the heart of a learning organisation is a shift of mind – from seeing ourselves as separate from the world to connected to the world, from seeing problems as caused by someone or something ´out there´ too seeing how our own actions create the problems we experience. A learning organisation is a place where people are continually discovering how they create reality. And how they can change it".*

It is not enough to just look at the focal organisation when talking about learning and learning perspectives. Organisations work with other organisations and it is important that they are able to learn from each other. How is this kind of learning possible? One perspective would be that it is possible to talk about individualised learning. Kolb (1984) is an example of this perspective that, as he talks about experiential learning. Kolb, who is especially inspired by Lewins and Piaget's works, regards learning as a process which builds on individual's concrete experience. It is about going from concrete experience to a more abstract construction view. According to Kolb learning is a process where knowledge is formed through the transformation of experience. One question is, how is it possible to transform this kind of learning, i.e. experiential learning?

Communities of practice – a specific form of network learning

Learning from others in network contexts could appear in many different settings. In addition to every-day business transactions we could think of field visits as well as in more organised learning settings, which could range from formal alliances to chat-groups on the Internet. Other possibilities include networks of people coming together to discuss and learn about a specific issue as well as the creation of various communities of practice and so forth. It seems as if most professionals need someone to at least exchange ideas with. The world is very complex and work tasks so varied that no one can be good at everything.

Learning means information transferred among people and interpreted by people. According to the theory "Communities of Practice", CoP, learning takes place continuously in spontaneously constructed groups of people (Lave & Wenger, 1991). CoP is a set of relations between people and activities. It has a time dimension and exists more or less in relation with other tangential and overlapping CoP. In these communities "old" members will teach newcomers. The social dimension has a strong connection to this approach. Every member starts as a peripheral member, but will be a full or "good" member if he will learn the ground rules of the CoP, i.e. he will become socialised. Lave and Wenger see CoP as one of the most important sources for the creation of knowledge.

People who share the same interest or knowledge can together build their own CoP. It thus becomes a group of people who believe that they have something to gain by sharing information. A CoP is not separated into divisions or positions and there is no clear organisation. Those who share the same interest in some way can form a CoP, which can be formed spontaneously. These communities can be very hard to define in the sense of a traditional organisation (c.f. Wenger, 1998). Learning will this way be something of a collective process because people interact with other people who are on the same wavelength and that is why learning will take place.

Wenger (1998) has developed his and Lave's earlier work and discusses three dimensions that a CoP consists of. First there must be mutual engagement. Members in a CoP hold different personalities, knowledge and skills and because of that, the members create different identities within the group. But as Wenger says, joint engagement does not automatically mean that there is harmony within the group. There can often be conflicts and competition inside the group or CoP. The second issue Wenger brings up is what he calls joint enterprise. The members within the CoP create some mutual context, which makes it possible for them to work together. Together it is possible to formulate routines and categorise work. History, culture, resources and different limitations within the activity also influence the context. The third point that Wenger points out is shared repertoire. What he means by this is that the CoP's repertoire consists of words, instruments, and ways in which people carry out things, gestures, symbols and different stories. It is about participation and reification, which will create mutual points of reference for the members CoP.

Learning through benchmarking and benchlearning

Benchmarking as a tool for process improvements has been used by many large firms and is proven to be a useful strategy for purchasing Cali (1993) as it offers unique opportunities to make improvements in process quality and productivity (Pulat, 1994). One of the first companies that started to work with benchmarking is Xerox, often called the benchmark of benchmarking. Xerox developed a ten step approach to benchmarking were the first five steps is the actual benchmarking and the last five are steps of good management practice. The steps are (Cali, 1993:120):

1. Identify benchmarking subject.
2. Identify benchmarking partners.
3. Determine the data collection method and collect data.
4. Determine current competitive gaps.
5. Project future performance.
6. Communicate findings and gain acceptance.
7. Establish functional goals.
8. Develop action plans.
9. Implement plans and monitor progress.
10. Recalibrate benchmark.

This may seem to be an activity mainly suitable for large firms. However, Zairi and Hutton (1995:35) state:

> *"Benchmarking may involve an organisation accepting that its performance in certain areas is not competitive and that a dramatic improvement is needed."*

The quotation above shows that benchmarking is an activity that may suit firms of all sizes and that the main area of concern before starting a benchmarking process is to recognise that improvements are needed.

When examining the ten step model of benchmarking one finds that the model does not deal with aspects of learning that are crucial for these kinds of projects. Bengt Karlöf (the

founder of Karlöf Consulting) has taken the concept of benchmarking and developed a concept called benchlearning that also covers learning aspects. According to Karlöf the benchlearning concept has four cornerstones; efficiency, good examples, learning, and teambuilding. The benchlearning method could be described as a process with seven steps (Karlöf, 2000).

1. Identify areas for performance improvement
2. Build the benchlearning team
3. Analyse performance area, is there potential for improvements in productivity in customer value or in both?
4. Learn from partner
5. Develop suggestions for improvement
6. Implement changes
7. Review and continuous improvement

The method has been developed as a part of the EU financed Leonardo da Vinci project and has proven to be an efficient tool for process improvements (Karlöf, 2000). Benchlearning has several similarities with benchmarking but stresses the importance of learning and the fact that one can learn from partners. The model presented seems to be an easy and pedagogical model to work with. Bengt Karlöf summarises the advantages of benchlearning in the following points. Benchlearning:

1. Increases efficiency and learning concurrently.
2. Focuses on organisational learning.
3. Raises the level of ambition and motivates performance improvement.
4. Involves the employees in the change process.
5. Encourages a knowledge-seeking attitude.
6. Is a systematic method for development.

CoP has elements of benchlearning. A common definition of benchlearning is:

> *".. a collaborative learning process among a group of companies, to focus on specific operating practices, compare measures and results and identify improved processes within their organisations".*

To meet other people who are like-minded for the exchange of knowledge within or between organisations is very similar to the CoP concept.

Those two approaches, i.e. networks and CoP, have to do with how people in business-related situations should actively build up and handle productive relations. It is one of the most important factors to get and distribute knowledge to the whole company or companies in order to retain competitive advantage. If a company consciously works with others to gain and give knowledge, problems could be tackled easier or more securely. Benchlearning could be seen as a denominator for CoP and Networking. Benchlearning makes it possible to retain other people's or organisations' solutions to problems that the central company would never have had the slightest chance to come up with alone. Another important finding is that decentralised organisations facilitate learning better compared to hierarchical organisations. Social contacts and activities within different actors are very important to increase collective knowledge in the network.

It is not uncommon to say it is most important to put the staff first if management really wants the company to grow (c.f. Pfeffer & Vega, 1999). Humans work better and smarter if they are encouraged to develop their own skills and competence and they work harder (better) when they think that they have more control over their assignments. Thus, if learning is going to be meaningful for companies as well as individuals, it requires some freedom of action (maybe much more then some) from management. "Freedom under responsibility" should be the motto.

However, to just use the benchlearning model and believe that it will be successful may be too simplistic. According to Håkansson (1989 in Axelsson, 1996b) there are three basic requirements for learning in networks to be successful, namely:

- Common language. The importance of a common language so that the actors involved can understand each other can not be stressed enough. If the actors in a network don't speak the same language learning is not likely to occur.
- Mutual understanding. In order to achieve learning in the network the actors need to have at least some basic knowledge about each other from the beginning. Mutual understanding is then developed through interaction between the actors involved.
- Trust. Trust is also developed through interaction between actors in the network. In order to increase the mutual trust the actors can start with situations with low perceived risk such as meetings before starting larger projects.

A network approach to benchmarking and benchlearning

Everyday buyer and seller relationships may quite often lead to more and more cooperation between the parties involved in the network (Ford, 1980). The advantages are according to Ford (1980) that uncertainty and distance between actors decrease as they get more experience with each other. This leads to increased commitment between the actors, a commitment that often can be visualised through mutual adjustments between the actors. It also leads to increased trust (Huemer, 1998), which is one of the basic requisites for learning to take place in networks (Håkansson, 1989 in Axelsson, 1996b).

Håkansson (1987) identifies three key elements in network theory, namely actors, activities and resources in the so called A-R-A-model. In a network value can be created through activity links (e.g. JIT, concurrent engineering etc.), resource ties (i.e. optimal use of other parties' resources), and actor bonds (i.e. the social bonds between actors) (Håkansson & Snehota, 1995; Ford et al, 1998). Hence a description of the different actors, activities and resources within a network would capture the essence of the network. Gadde and Håkansson (1998) have made a description of how activity-, resource-, and actor analyses can be carried out.

The main objective for the activity analysis is to find more efficient ways of working so that the company can save money through cost rationalisation and improved product offerings. When conducting an activity analysis the points of departure are analyses of single activities and the dependencies between them (Gadde & Håkansson, 1998). When analysing the dependencies one can distinguish between the complementarities between activities, i.e. the extent to which certain activities are built upon each other, and the similarities between the activities with respect to the resources required. According to Gadde and Håkansson the following points summarise the most important aspects to consider when conducting an activity analysis (1998:140).

1. What does the complete activity chain look like from the suppliers to the end customer?
2. Can one activity be eliminated or moved to another actor?
3. Can the coordination between the activities be improved?
4. Is it possible to improve one activity by adjusting it to other activities?
5. Can a whole activity chain be replaced by another (and more efficient) activity chain?

A firm can achieve synergies by better coordinating both its own and its supplier's' resources (Gadde & Håkansson, 1998). Gadde and Håkansson list the following implications for purchasing when it comes to the coordination of resources (1998:160-161).

1. Which are the most critical resources, to the firm, currently controlled by suppliers?
2. Is there any reason to insource any of these activities?

3. How are the critical resources spread among the suppliers and are there any connections to other resources?
4. Which kind projects are we currently running together with the suppliers controlling resources and how do we reach the various aspects of those resources?
5. How can we develop these relationships?
6. What new kinds of resources are represented in form of new technology etc.?

To further describe networks one can identify the different bonds between the actors in the network. According to Hammarkvist et al. (1982) these bonds are technical bonds, knowledge-based bonds, time-based bonds, social bonds and economic/legal bonds. These dimensions could be important e.g. when choosing a benchmarking partner or considering a specific benchlearning group to enter. What kind of relationship do actors have to one-another? It is natural that it sometimes is a bad idea to bring in e.g. competitors, but a closer look at bonds between firms could reveal other barriers as well as enablers. It could for example be advantageous to bring together companies involved in different businesses but pursuing similar processes – thereby an open atmosphere should be easier to establish.

Network analysis, can be a fruitful support when creating benchmarking groups. In the following part a benchmarking project is described.

A case study of a benchmarking project

The Adapt benchmarking project – a description

As part of a partly EU financed project called Adapt, a number of benchmarking groups, consisting of SMEs, were created. The aim of the benchmarking groups was that the participating companies should learn from and inspire each other, i.e. facilitate benchlearning. All firms in the project were from the Gnosjö region, well known for the cooperation between firms. Further, all firms in the project took part in several benchmarking groups that were divided according to firm functions such as quality, personnel, environment, production, and purchasing. In the groups created there were one representative from each firm and one representative from academia. The school of engineering at Jönköping University, which coordinated the project together with IUC in Gnosjö AB, invited Johan Larsson (one of the authors of this paper) to take part in the purchasing group as the academic representative.

In the purchasing group seven companies, all manufacturing firms, participated. Their respective purchasing managers represented the companies in the benchmarking group. All actors took part in the network voluntarily and there was no other cost than the time spent associated with participation. Each of the participating firms hosted at least one meeting during which the participants got valuable insights into the operations of the hosting firm, insights that could then be used in the discussions. One focus of the company visit was to examine the internal processes of the firm in focus. After this introduction it was time for discussion. The discussions were opened by the hosting firm that presented how they solved their purchasing problems. The approach with a company visit and a presentation made by the host helped to create trust and mutual understanding among the participants. This part was mandatory for all meetings. In total, the benchmarking network met eight times, each meeting lasting half a day. Step-by-step, possible benchlearning projects as well as major themes emerged.

The second part was broader, where the participants through the use of the benchlearning technique tried to raise their competencies. The first step was to decide upon the objectives of project. Based on trends in the area of purchasing[2] that all participants found emerging and

[2]Purchasing as a function has undergone a lot of changes over the last years (e.g. Lamming, 1993; Hines, 1994). This development can be described as a shift from a buying orientation to a more relationship oriented procurement or supply management orientation (Anderson & Narus, 1998). The aim of supply management is to

crucial for the further development of their firms, a joint agreement was made to focus on supplier evaluation and supplier development (e.g. Larsson, 2001) in the benchlearning process.

The second step of the process consisted of presentations in which all participants presented how they worked with supplier evaluation and supplier development at that time, and what they themselves perceived to be strengths and weaknesses of their ways of working. All these presentations were followed by constructive discussions in which the academic acted as a moderator. The role of the academic was also to elaborate on specific questions and to initiate new discussions founded on a research-based view of the problem.

As stated above the participating firms agreed to focus on supplier evaluation and supplier development. To arrive at some actual learning all the actors contributed with their knowledge and current practices based on their own experience, which was then discussed by the participants. The benchlearning process in this Adapt network can be illustrated in the following way (see figure 1).

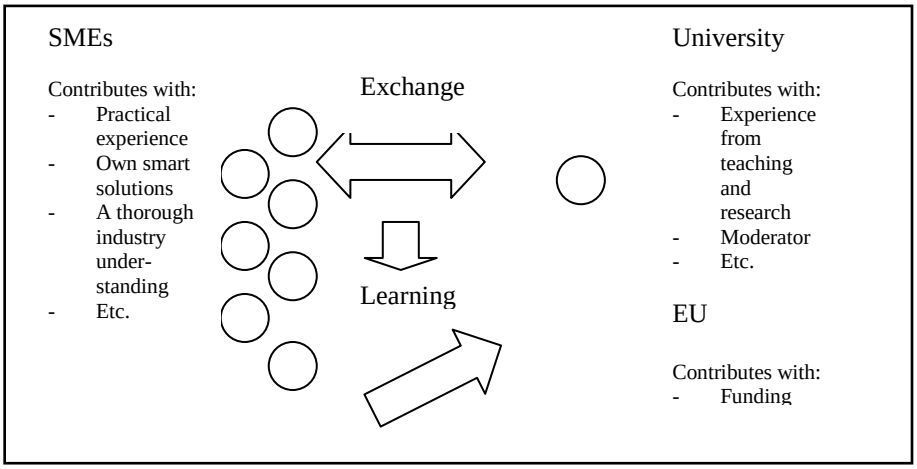

Figure 1. The benchlearning process in the Adapt network.

Figure one shows the two main groups of actors (SMEs and University) and their respective contributions (resources) to the process in the form of experience. The main activity in the network was exchange of these resources in order to facilitate learning. Through experience exchange, learning took place. The academic representative contributed with some "state of the art" examples from textbooks and research, which brought some valuable perspectives to the discussions and some hints for future development of the actors' current practices. The fact that there was a neutral actor in the group was considered positive by the participating firms and helped to keep them as equals. This use of a "neutral" actor also helped the discussion continue in a positive direction and also helped the participants to ask more "delicate" questions that they might hesitate to ask each other directly.

The aim of this experience and knowledge exchange was to enable the participants to pick the best practices from all participants and thereafter create a new system of their own. This process was in this case fruitful, since all the participants were eager to learn and really contributed with their own practices as well as interesting questions and comments.

This network constellation and the benchlearning focus resulted in a number of improvements in the participants companies. Firstly, several firms have changed their supplier evaluation forms to cover more aspects, such as communication. A couple of the firms have also introduced self-evaluations for their suppliers, to be used as a discussion base in supplier development discussions. Secondly, a couple of the participants have introduced the concept of supplier classification, in order to spend their time better in their respective firms. Thirdly,

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maximise the value delivered to the end customer through a concentration on the firm's own core competencies and the forming of a supply network, with collaborative relationships with selected suppliers, to cover all other activities. This development has also meant more focus on supplier development (Larsson, 2001).

the project has created an awareness of what is happening in larger firms and how that may affect the participant firms. Fourthly, the project has resulted in an interest in academic practice among the participants. A number of participants bought a textbook recommended by the academic representative and they also began subscribing to the Swedish magazine Inköpsjournalen (The Purchasing Journal), which helps them follow developments in the purchasing area. Lastly, the project has resulted in the creation of a network structure that is likely to live on so that the learning through exchange of ideas can continue.

The Adapt benchmarking network – an analysis

In figure one the actors, resources and activities of the network are shown. The benchlearning process in this network was rather successful. This could depend on several reasons.

The fact that the participants took part voluntarily shows that there was at least some mutual understanding (cf. Håkansson, 1989 in Axelsson, 1996b) about the problems and the need to improve their respectively purchasing functions to better cope with current trends in purchasing. The importance of mutual understanding is also emphasized by Lorange and Roos (1992) stating that all cooperation must be founded on overlapping motives in order to be successful. The fact that all firms were manufacturing firms and located in an industrial district is also important to note as it has been shown that firms within same industry and same districts easier understand each other (Lorenzen, 1998), and have a common language (Håkansson, 1989 in Axelsson, 1996b).

We have seen some intention from the participants to increase the cooperation between different groups within the network. This could be seen as some kind of a CoP where different group are formed to work in there own profession. It has appeared some collaborative learning process with groups of people as well as groups of companies. Their specific objectives have brought them together.

When it comes to the connectivity in the network (Axelsson, 1996a) it could be described in terms of bonds between the actors (Hammarkvist et al, 1982). The most important bonds that have been developed between the actors in the networks are social bonds and knowledge based bonds (c.f. Wenger, 1998). Social bonds have been created between the individuals participating in the network and through the benchlearning also some knowledge-based bonds have been created. The fact that these companies have cooperated over rather small issues has increased the trust between the firms and consequently also the likelihood for future cooperation between the firms. This was also stressed by a majority of the participating companies, which thought that this was a very fruitful way to work. A sign of this was that they after the end of the Adapt project decided to continue the cooperation and also invited me to participate.

Another and far more important sign is the fact that several of the firms have changed there supplier evaluation methods and carefully considered supplier development and which suppliers to engage in that kind of cooperation. This means that the project can be said to have gone through the first five steps and started working with step six and seven in the benchlearning process (Karlöf, 2000), which could also be the basis for further cooperation between the firms. This could also be seen as a kind of organisational learning (c.f. Senge, 1990). Learning can occur when, for instance, people in different situations discover different things around them because of their acceptance of the fact that they constantly reshape their reality. In our case it happened when companies stopped seeing their own working methods as the right ones, and could see other more useful methods, in our example different supplier evaluation methods. It is evident that some learning has taken place; hopefully it is or will develop into organisational learning.

What we can see in this study is that competence is not only based on individuals. It is just as important to see the whole and aggregated competence within the organisation or the network (cf. Axelsson, 1996b; Wolvén, 2001).

Conclusions

Benchlearning in networks is a useful method to facilitate learning and competence development. In this specific case the network has developed into what could be labelled a community of practice, CoP. The participants have brought their individual competencies into the network, and through the experience exchange, partly new knowledge has emerged.

To have a common denominator is one way to open up the experience exchange. In this case the denominator was that the participants all came from the same region and therefore talked the same language. Other kinds of common denominators could be firms from the same industry, firms with common suppliers or firms with common customers.

Also the use of a neutral actor, that could be an academic or a representative from a support group, has been important in this case. This is also an innovative way of introducing academic knowledge to SMEs.

There are still many areas in which knowledge diffusion among SMEs could develop. The benchmarking/benchlearning method used in the Adapt project is one way of spreading knowledge and introducing an academic approach to these companies. Another similar method is the KrAft-method that is described and analysed by Axelsson and Larsson (2002).

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