SME Networking Models and Examples from Northern Italy, Denmark and the UK

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Abstract: Ever-increasing global competition hitting both large and small companies alike is provoking creative thinking. Small and medium sized enterprises (SMEs) need to change behaviour to meet the challenges. One of the few ways that SMEs can successfully fight the competition is by increasing interfirm cooperation or networking. In some regions, this has already enhanced the capabilities of SMEs to increase their competitive edge [Jakobsen-Seremetis, 1993]. This paper compares three different modes of networking. Characteristics and examples of technology networks are drawn out from North-Italy, Denmark and the UK.

Introduction
A few characteristics of technology networks in these countries would be:

<table>
<thead>
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<th>Country</th>
<th>Type of networking</th>
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<td>Northern Italy</td>
<td>Local/regional bottom-up, spontaneous inter-form cooperations, Service centres are important. Leading force: technological needs. Weak point: marketing activity</td>
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<tr>
<td>Denmark</td>
<td>National top-down cooperations based on developed technological background. Companies in networks have veto power. Leading force: marketing, searching new business and market opportunities.</td>
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<tr>
<td>UK</td>
<td>Local top-down cooperations, plus all of the Danish characteristics. Intention to broaden the cooperation to other regions/countries as well as working with local knowledge centres.</td>
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Table 1
SME networking models in Northern Italy, Denmark and UK

Another important aspect is the way in which firms in networks interact with the technological service environment. The modes of contact can vary in each country as well. In North-Italy, 20 years ago, there was generally a lack of a technological service infrastructure. Consequently, service centres were created due to the
technological needs of firms. In Denmark, on the other hand, the structures of technology service institutes were very much in place 20 years ago. Thus Danish SMEs in networks do not regard their primary cooperation as being based on a need for technological services. In the UK, it is expected that firms in networks will have stronger links service/research centres, as in Italy. Nevertheless, it is necessary to note that the focus on networking is rather a new development in the UK.

1 SME Networks in Northern Italy

What characterizes the northern Italian networking system? First of all, it must be said that the type of traditional cooperation which occurs in northern Italy, known in the Emilia-Romagna, Friuli Venezia Giulia, rather less from other northern Italian regions, such as Lombardia, veneto, is based on informal relationships. Firms are mostly owned locally, and owners know one other and their families. When discussing production of a certain product, be it stocking or ceramics, chairs or knif, they lies in the relationships of firms to producers of equipment. Their close-knit personal and working relationships spur innovation, due to the fact that the producers of equipment are almost a part of the production staff, trying out new ideas on the shop floor. Thus, these firms are always ahead of other firms which must wait for new technologies to be tested and then try to hit the market. Another factor adding to the innovative speed of these firms is that the are so closely tied innovative secrets are not easy to keep confidential, so much diffusion occurs and then imitation. Finally, Italian producers are very sensitive to their costumers' suggestions, which in turn drives innovation further [Rosenfeld,1990].

The type of interfirm cooperation in northern Italy is locally instigated and bottom-up in nature. There were no particular industrial policies aiming strategically at spurring inter-firm cooperation. Nevertheless, service centres offering technical and market information to these small firms play a major role in their development. Service centres within specific sectors as well as a technology transfer agencies in Emilia Romagna and Friuli Venezia Giulia, have been established as a joint effort by regional development agencies, banks, the entrepreneurial associations. These centres offer abroad span of services, from technical training to testing facilities and market information, among others [Leoni, 1993].

1.2 The Role of Service Centres in Northern Italy

The service centres are usually utilized by companies collectively, through the entrepreneurial associations or branch organizations in many cases. In this northern Italian system these companies becomes members by paying an annual membership fee which gives specific advantages. The price for the services
rendered is reduced 25-50% from the original price. Non members must pay the full price. If this is the case, then firms have limited influence on the overall direction the service centres they withdraw their membership.

Another characteristic in conjunction with this mode of networking is the way in which technology plays a leading role. In northern Italy, it seems to be technology that leads small firms’ development, their innovation, product quality and product development [Leoni, 1993]. This seems to be their primary focus both in their networking relationships and their use of the service centres and then market information.

The weakest point of the northern Italian networking system is marketing. Local firms from these regions are well ahead of their competitors in technological innovation and in quality but lag behind in marketing capability. So service centres were set up to meet those demands and to help groups of firms within the same region [Rosenfeld, 1990].

The last characteristic of this phenomenon is that the internal up-grading of competencies and skills is actually left to the initiative of the individual small firms in these two regions. If they want to be trained in entrepreneurship or management skills or seek improvement in their marketing techniques, they have to realize that they need these skills and then seek this expertise from a service centre. This is not always an easy endeavour when one is the manager and owner of the family’s firms has always run it in a particular way.

1.3 Specific Background of the Northern Italian SME Networks

The northern Italian SME networks in the Emilia Romagna and Friuli venezia Regions are supported by younger and larger entrepreneurs, while older and smaller firms owners remained sceptical. The rurral and regional banks are a driving force in the creation of these centres, because these types of banks are not mainly for profit and not subject to taxation and they are reqiored to spend their funds locally, either through non-speculative investments or by making gifts to the communities.

Thus rural and regional cooperative banks can in many ways be seen as the catalysts for economic development and in this case acted as the economic development agency.

1.4 Target Group(s)

The target group of the northern Italian networks is mainly small and medium sized enterprises in the female hosiery sector in the Region of Emilia Romagna, and those SMEs in the knife, chair industry in the Region of Friuli Venezia Giulia.
1.5 Financial Support

National, regional, provincial and communal financial assistance is based in particular on regional and national laws and regional, local regulations created mainly as an incentive for projects towards the development of advanced services for businesses.

2 The Danish Networking Experience

As opposed to the northern Italian situation, Danish SME behaviour is not geared towards informal networking relationships of the type described above. In general, the formation of industrial districts or geographical sectoral clusters does not exist in Denmark to the same extent as in northern Italy.

Nevertheless, the Danish model tried to implant some of the Italian characteristics of collaboration through a national top-down approach. The Ministry of Industry in 1989 announced its 1992 strategy encompassing the idea of networking and its willingness to support this activity financially through its feasibility assessment, planning and operation network phrases. The Network Programme was seen as a way to induce companies to change their behaviour towards more inter-firm cooperation [Gelsing-Knop, 1991].

2.1 Special Features of the Danish Model

What are the Danish characteristics of networking? First of all, the companies come together in small groups to form networks concerned with joint marketing, quality assurance, joint procurement of advanced equipment, product development, etc. Secondly, each firm in a network has much influence (veto-power) in the running of the network because they have common ownership of the network. Furthermore, even though they are a part of a network, they still retain individual access to end-markets, due to the fact that they have not merged but they still continue their individual business alongside the business network activities. They are still close to their end-users and in this way their market sensitivity is still greater than in a large concern.

The most important difference between the northern Italian and the Danish mode of their inter-firm cooperation is that the Danes are aiming first and foremost at new business/market opportunities. The results of the evaluation of the Danish Network Programme based on questionnaire survey showed that the objective most frequently mentioned is marketing. Based on this information, it is conclusive that, in the Danish case, technology seems to follow after: developing new products subsequent to having identified a new market [Rosenfeld, 1990]. The discussion on relationships between SMEs and technological institutes is apt
to be brought up at this point. It is well known that one of the major problems a small firm faces is in upgrading technology, reorganization, products, etc. As already mentioned, Denmark has a vast and very well developed technological infrastructure designed to service SMEs. This includes one of the five largest technological institutes in Europe, the Danish Technological Institute (DTI) with 24 departments and 1900 employees, five research centres, numerous local technology centres and 15 technology information centres, one found in each county providing free advice to small firms [Gelsing-Knop, 1991]. With this in mind, one can say that Danish SMEs do not cooperate primarily to solve technological problems. They cooperate, sometimes even with their competitors, in order to export in a shrinking global market. Being global does not only entail more competition abroad but also domestically. All firms are virtually global and the Danish SMEs realize this and act on it.

Finally, internal up-gredding of competencies and skills is inherent because of the substantial involvement in a network’s development and operation. If there is a trained network broker involved, strategic management skills have funnelled through to the SMEs managers involved through interaction with him/her. Network brokers are facilitator who assist in identifying the partners and in bringing them together, guiding them through all the critical processes as well as helping them with the business idea, business plan, etc.

2.3 Specific Background of the Danish SME Networks

The Danish networks are established on the initiative of network brokers because of the need of a group of companies to increase exports to new markets, comprising products from all of the complementary companies. The most successful group of founding companies consists of a shipyard, an engine and propulsion manufacturer, a pump and a valve manufacturer, a navigation equipment manufacturer, a food processing equipment manufacturer, a fishing vessel operator, a fishing research centre and a bank. Together with their individual sub-suppliers, they are able to deliver total trawler and processing solutions both on vessels and on shore.

Parallel with the marketing effort, the main Danish SME networks are also managing development projects of state-of-the-art trawler which are aiming not only at the Danish market, but also at a number of foreign markets, as the vessel is highly automated, modularized and can be programmed for a large number of different catches.

Many Danish SME networks have obtained orders in the former USSR and in some cases the exports generated by these networks account for more than 30% of the total turnover of the founding companies.
3 The UK SME Networking Experience

As mentioned earlier, the focus on networking among SMEs is new in the UK. While we can describe how firms may attain their technology or how they interact at present, when referring to networking activities, there are very few examples known at this time. Therefore, some characteristics will be presented, some of which are known today and some of which are being aimed at through efforts to promote networking specifically in the South West of England and Wales. First of all, the part of UK discussed in this paper is limited to England, Wales and Scotland and does not take up any discussion on Northern Ireland.

3.1 Special Features of the British Model

Although in Italy we have seen a locally instigated bottom-up phenomenon in inter-firm cooperation, and in Denmark, it was nationally promoted, top-down, in the UK it is a local and top-down through the Department of Trade and Industry (DTI) efforts through local and regional development organizations such as Training and Enterprises Councils (TECs) facilitated by Danish Technology Institute.

The amount of technological assistance SMEs may need through local technology service centers is not being met. The British government is very hesitant in investing great amounts of money into technology-oriented assistance: in general, the government expects the market to take care of itself. They have made attempts to create regional technology centres of which some have been even very successful [Edgar, 1993].

How then do SMEs manage in attaining technology or how do they innovate? There seems to be a strong link between SMEs and large firms. This supplier-large firm relationship is based on business relationships and is probably not so tightly interconnected into the social fabric as in Italy because there are no industrial districts or rather the sectors are more widespread across a larger geographic area. The DTI UK sponsored initiatives attempt to use the Danish example whereby all the characteristics mentioned under Denmark will be applicable in describing the UK example. A couple of new dimensions will be probably added. SMEs will be working more closely with their local knowledge/research centers and further education colleges.

The reason why this is different from Denmark is that in Denmark they already use their technological infrastructure rather actively. Secondly, networks may be created with participation from other regions and/or countries. In order to explain this dimension, it is necessary to describe the initiatives being undertaken at the present time.

Consciously introducing networking into the UK while building on the Danish experience is of course based on local conditions. The regional DTI in Bristol sees
networking as a vehicle to regenerate SME growth within the region. The programme is specifically focused on creating new business opportunities, new markets or a new competitive edge for businesses in the South West of England.

Network centres in the UK are set up in cooperation between Business Net Ltd (a unit of the Danish Technological Institute in UK) and the TEC. Network brokers are employed and administrated by a TEC, which is also responsible for the local marketing. Business Ltd ensures that the potential broker is qualified both in terms of experience and personality through psychometric testing, participating in interviews and the financial choice of the broker. Brokers receive two periods of intensive training, the first stage occurs upon joining the network centre, followed by field experience and then a second stage of training. The trained network brokers in Denmark were for the most part freelance consultants who received money for the number of networks he/she could put together and had no long-lasting structural connection to the upgrading of SMEs. Thus, there was no way to check the quality of the work undertaken or any way to correct it along the way [Edgar, 1993].

3.2 The Role of Network Brokers

Brokers work with networks in the same three phases as in Denmark, i.e. feasibility assessment, planning and cooperation. Trained coordinators from Business Net Ltd serve as back-up to the network centre brokers working in the field. There are regular assessments of both the network and the broker. Reports are prepared and entered into a database for future training and assistance to other networks both in the UK and other countries where networks are set up through DTI’s Business Net operation. A framework for this programme is provided, back-up in terms of trouble-shooting consultancy to the network centre brokers, quality assurance of the brokers’ work, evaluation and information and assistance to the network centres with their marketing activities.

3.3 Specific Background of the Danish SME Networks

Lace industries thrived in Scotland from the 1860s. There were only seven companies left in Britain producing Nottingham lace. This is rather a small industry, but it employs the majority of the workers in the valley. They use cotton to produce the lace. The industry was definitely in decline: there were falling sales, price cutting, quality standards being reduced. Ayrshire companies were competing on price against each other. There were both competing products and suppliers. They were not using the unique attributes of the lace product in the market:

- its scarcity,
- that it was made of all natural fibre,
There was an attempt at a regeneration of the industry, starting in 1989 and finally culminating into the Scottish Lace Guild in 1991.

The following were the factors needed for it to succeed:

- The product is unique and uses natural fibre,
- Industry has an extensive library of designs,
- Production process enables mills to operate flexibly,
- Assets are fully depreciated,
- Can produce very wide fabrics up to 4.5m,
- Can adapt old designs.

The companies had the following reasons for wanting to join together:

- They wanted export,
- The industry is significant to the local economy,
- There was willingness to change in order to survive,
- This was a way to reduce costs through mutual support,
- They could undertake joint marketing of lace products,
- They could share export drive costs.

Ayrshire Enterprise brought these companies together to form the Scottish Lace Guild. They acted as the network broker function or facilitator. They even funded the initial activities of in-depth market research. They looked at the Western European market and US market for better market opportunities. The idea was to add value to the product and enhance its quality. By branding the product and not the individual companies, a brochure, a logo and an image were created. Further objectives included attracting new orders (i.e. by going to international fairs) and increasing business with existing customers. From January 1992 to January 1993, average turnover for the companies increased by 10-12% in an industry which was virtually in decline.

Only after realizing success, they are looking into upgrading their technology. Currently, the Guild has been looking into the possibility of producing CAD equipment. There is a research project whereby they have identified the technological needs for innovation in their industry. This involves design of technology applications in order to make samples at a quicker pace. In this way the Guild will be able to meet its technological needs required by a market which demands quick samples instead of the slow process of today where it may take up to 2 months to come up with a sample.
Conclusion

Reviewing the Italian and Danish cases is that in particular in the Danish example, two things have taken place which further the SMEs development and accelerate possible growth. The Danish firms through their participation in networks: seek new business/market orientation, and build management capacity in an active way. Many networks with limited contents of new technology succeed very well, in fact they become very profitable [Rosenfeld, 1990].

The intention of the Business Net Ltd endeavour is to dovetail aspects of the Italian and Danish experiences which seem relevant and beneficial to the SMEs in the UK. Essentially, it is an attempt to increase SMEs’ competitiveness by opening up new market/business opportunities and at the same time to provide the technological solutions to SMEs’ technological needs. Technology will lead and follow simultaneously. Two new dimensions of learning parameters include: increased trans-regional and possibly trans-national networking as a result of the relationships built up around the infrastructure of network centres and other network abroad. Finally, we expect that strategic management upgrading will be broadened even more than in the Danish case. In the British case, the network brokers will also be able to identify other needs which the SMEs may have, thereby broadening the effects of the inter-firm cooperation. In other words, in Denmark, the network broker focused only on the aspect which the SMEs would cooperate on, like product development or marketing etc. In the British case, the network brokers are also trained to identify other aspects for the SMEs to improve themselves. Of course, the companies do not only learn from the network broker or facilitator but also from each other [Cooke-Morgan, 1992].

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