Dissolution of Networks

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Abstract

Many articles describe and analyse networks and relations in networks. Relationship building and relationship marketing has also been analysed. When and under what circumstances a company for example should be relationship orientated and when it should be transaction oriented, how relationships with subsuppliers are maintained and evaluated, and whether or not to extend its supplier cooperation.

Due to first of all the IMP group, attention has been directed to the fact that many industrial companies are a part of more or less defined networks and that they have long-standing customer and supplier relationships. Various have emphasized that relationships do not last forever and that networks therefore change or dissolve. Circumstances may have changed by e.g. mergers, closures, or acquisitions. Factors in a company's environment may also result in its relationships being ended because they are no longer advantageous.

The fact that networks and relationships end has not invoked much attention in literature. It is, of course, relevant to analyse how companies build relationships and how they should act most appropriately, but one must also necessarily look at the process that leads to relationships being discontinued and networks being dissolved. How do the parties in the network react on dissolution tendencies – when the network for one reason or another is put under pressure – and what determines dissolution respectively maintenance of the network? This paper analyses these questions.

Basis is a specific network, the distribution system of Danish potted plants, which for different reasons is under a heated pressure and which shows signs of dissolution. Network members are the Danish market gardeners, various transport and service companies, as well as wholesalers and sales companies, and also a number of joint associations. The network has been built and continuously developed for a number of years, but due to competition and changes in structure on the different levels in the network, the question is if it for some of the parties will be relevant to take part in the network in the coming years.

Development and dissolution of networks

Networks are established, they develop, and at some point they cease to exist. Among others, Håkansson and Henders (1995) and Hertz (2001) discuss the dynamic of networks that can differ from network to network. Håkansson and Snehota (1995) discuss changes in networks and why they happen. It is emphasized that the changes call for the individual companies in the network to plan for these and make decisions that support their objectives.

"In the management perspective the problem becomes one of how a company can cope with change in the network when it has virtually no possibility to predict with any accuracy any future state. Major issues for management are: how to assess and interpret the changes, whether the company is to absorb or promote changes, and how to handle it for its own advantage" (p. 270).

In the individual networks, the management problems will lead to actions that consequently may dissolve the networks because important members decide to discontinue their relations and leave

the network. Managerial problems may also result in actions that consequently will strengthen or reconfigurate the network.

Literature does not describe much about how the different types of network members react on threatening changes in their environment. How and why networks cease to exist has only been poorly illuminated. See e.g. Harrison (2001), and Laine and Åhman (2001).

The objective of this paper is to analyse behavioural patterns in networks that are threatened and about to dissolve. The study is based on empirical material from a Danish network under pressure in which tendencies of dissolution can be found. The network is within sale and distribution of Danish potted plants. Since the export of Danish potted plants amounts to about DKK2,8 billion per year, the Danish government is interested in strengthening the export by promoting the Danish gardening sector's competitiveness. Therefore, the government supports an extensive research project – Fremtidens transportkoncepter (Future transporting concepts) – that is carried out in cooperation between Danish universities, the Danish Technological Institute, and the market gardeners' trade association (AfP). The University of Southern Denmark takes part in the ongoing project and this present material is from the project.

First step of the research project has been to make an extensive situation analysis. Elements of the analysis are among others 2 quantitative studies asking a selection of customers about their wants and needs as to delivery of potted plants, and asking market gardeners and sales associations about their view of the co-operation between market gardeners and distribution systems. Besides these two questionnaire studies, a considerable material about the competitive situation, the size and development of the markets, and intermediaries' structure development has been collected. The material has been pieced together from accessible market analyses and official statistics. Further, the dominating sales organization's customer structure concerning the most important markets has been registered, and the customers have been grouped into main categories. The categories' total sales for the last 5 years has been settled in order to form a general view of the development.

Finally, one of the project participants has drawn up a brief report on strategic challenges for the distribution of Danish potted plants. The report is based on interviews with top people in the sales associations/wholesalers and on the material on competitors, middlemen, etc.

Below, the network in question will be described – including its members and its structure. Based on the questionnaire mentioned, the different parties' views on the cooperation now and in the future will be studied, and finally, the sales organizations' threatened situation will be analyzed. This will form the basis for a further discussion and analysis of the behavioural pattern in the threatened network – the parties' motives and actions.

The network for production and sale of Danish potted plants

The Danish network for production and sale of potted plants is extensive and complicated, and it has been developed for a number of years. The production and development of potted plants take place in a number of market gardens (5-600) that vary in size whereas sales mainly is taken care of by sales associations and independent wholesalers. They are in contact with a large number of customers all over Europe (and to a moderate extent outside Europe). The most important markets are Germany, Sweden, England, France, and Switzerland besides the home market. Today,

independent haulage contractors handle transport from the sales associations/wholesalers to the customers, but formerly it was handled by the sales associations/wholesalers themselves. The sales associations have experienced a thorough concentration and merger process resulting in the merger between the two largest potted plants sales associations in Denmark, GASA Aarhus (GAa) and GASA Odense (GO) to GASA Group Denmark (GGD). Managing 80% of the Danish potted plants sales GGD is altogether dominant. The independent wholesalers have also experienced a concentration process and so Bøg Madsen (BM) also plays a dominant role in this group.

Originally, the sales associations were established by market gardeners that became members of co-operative societies and with it owners with the purpose of taking care of the sales and distribution work that the individual market gardener was unable to attend to. The co-operative society has continued till today, but a couple of years ago GAa was converted into a private limited company and in connection with the merger, GO was also converted into such a company. Thus GGD is now a private limited company. However, the market gardeners still have the majority holding, and the board of directors consists of market gardeners.

Sales associations and wholesalers cooperate in the trade association, AfP, the market gardeners in another trade association, PjP. AfP and PjP have a superior trade association, DEG, in which mutual problems are discussed.

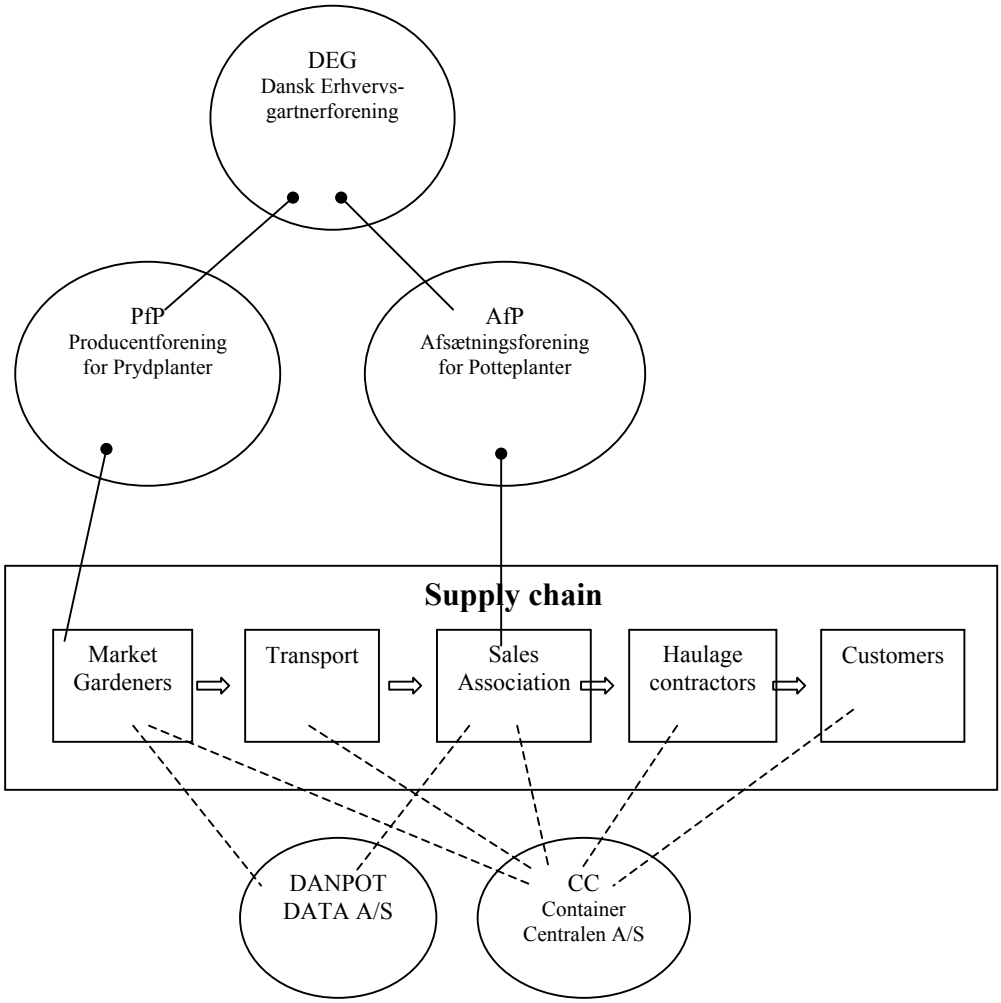
Furthermore, there are two companies that are owned by sales associations, wholesalers and market gardeners. One, Container Centralen A/S, produces, rents out and manages containers used by market gardeners, sales associations, haulage contractors, and customers when distributing potted plants. The other, Danpot Data A/S, which is owned by market gardeners and sales associations, registers market gardeners' supply and prices, for the sales associations to use for sales purposes.

The Danish market gardeners are also in a concentration process and at the same time they specialize in certain cultures. Thus, there is a tendency towards a small group of big market gardens specializing in popular plants, and a large group of smaller market gardens producing niche products.

An example is a merger between two large producers of potted roses in December 2001. The merged market gardeners produce 20 million potted roses per year. Their annual turnover is DKK125 million, and they employ 214 people.

Another kind of co-operation between big market gardens has also come into existence: a marketing co-operation. An example is joint marketing for 5 market gardens with an annual production of 30 million plants. The customers are contacted directly in order to draw their attention to the exact products of the market gardens.

The system is shown in Figure 1:



Naturally, the potted plants have a certain growing season and when they are ready to be sold, the market gardeners report the offered amounts to the sales associations. Every day, the seller contacts the different customers – wholesalers, chains, DIY centres, and garden centres etc. – in order to sell the plants at the stated prices, or at lower prices if necessary. When sold, the plants are transported from the market gardens – by various haulage contractors - to the sales associations'/wholesalers' stores where they are sorted according to customers and geography. The same day the lorries leave for the various markets in order to reach their destination the next day or – in case of great distances - the day after. Independent haulage contractors transport the goods in refrigerated vans.

The customers distribute the goods to the various outlets. The plants are delivered in containers. The empty containers are returned to the sales associations and passed on to the market gardeners.

How do the network members view the situation?

As part of the research project's situation analysis, a questionnaire study among the market gardeners and the exporters (sales associations/wholesalers) was made.

The objective was to clarify how the industry itself considers its possibilities for development and how the individual players expect to develop in the coming years. Questionnaires were sent out to 543 market gardeners and 19 sales associations. One third of the market gardeners and almost half of the sales associations returned completed questionnaires.

As for sales the study showed a very wide spreading. The market gardening trade is characterized by many small and a few big market gardens that, however, account for a considerate part of the total potted plant production. The 10 biggest market gardens – the same as 7% of the market gardens participating in the study – account for 40% of the total production.

The market gardeners consider Germany, Sweden, England, France, and Switzerland to be the most important markets outside DK. Also, a number of market gardeners state that a considerable part of their production is being sold in Denmark. Very few market gardeners state that their production is being sold in only one or two countries.

The market gardeners were asked how much of their sales were sold directly to the customers and how much were sold through sales associations. Today, almost 90% of the Danish potted plants are exported through sales associations, but the market gardeners expect the figure to fall 10-20% within the next 3-5 years. Both big and small market gardens expect sales directly to foreign customers to grow.

As for competitors, the respondents were asked to assess both the Dutch and the domestic market producers in the individual markets. Especially, in the German, the French, and the Italian markets, the domestic market producers are important competitors. It seems that both types of competitors will improve their competitiveness in the coming years.

Today, the Dutch potted plants export is considered to be more professional than the Danish, both as for product development, cost control, and sales. The domestic market producers are not considered to be as professional as the Danish potted plants export trade.

The market gardeners and sales associations were asked to consider what they are good at today and what they need to be good at in about 3-5 years.

It seems that in some areas, the big market gardens consider themselves to be more able than the industry as a whole. These areas are marketing, financial planning and control, IT, and product development. The big market gardens expect to become considerably more professional in a number of areas, such as logistics, sales, IT and product development. The medium-sized market gardens also expect to develop in the coming years, but not so considerably as the big ones. The sales associations expect only little competence development in the coming years. They expect development in logistics and marketing.

Furthermore, the participants in the study were asked to consider their need for developing tasks within logistics. The answers showed that the industry agrees that it needs to develop logistics.

Finally, all participants were asked to consider in which areas they see a special need for development in the coming years.

All the market gardeners pointed out that the most important challenge in the coming years is to develop the distribution system. Further, they need to develop sales and the product development.

The sales associations do not attach the same importance to developing distribution. In stead they are aware that they need to develop the information system.

The sales organizations under pressure

As for the markets and their importance Germany is clearly the biggest market and will continue to be so in the coming years. The Nordic countries are also important whereas Eastern Europe is not yet that important.

The Dutch are the most dominating competitors eating their way in on the Danish producers' traditional areas. The part of the customer's product range that consists of Danish products becomes less and less. At the same time, the Danish products become more and more specialized and bulky and thus the niche products disappear. The sales associations therefore have to buy elsewhere in order to offer a full product range.

The sales associations sell to all the markets except for the domestic market, where they act as wholesalers. The sales associations stress that the grocery chains are difficult to deal with and that their demands make it difficult to service them in an economic way.

Today, more and more chains buy and forward to their own distribution centrals themselves. The chains want to buy a great many plants to agreed prices - prices agreed upon with the producers – and they focus on a limited basic product range with many particular items.

The development in the intermediaries in the individual countries is clear. The number of wholesalers is falling off and so is the traditional specialist trade. Sales in garden centres and groceries trade, however, are progressing. Further, there is a clear tendency to increased chain formation in both the groceries trade and in DIY centres, and in specialist trade, which of course makes the individual customer more important and thus, more powerful.

The above can be summarized as follows:

1. Fewer wholesalers and flower shops
2. More powerful chains within all trades
3. Grocery shops are becoming more important
4. The competition from Holland is growing

If these trends are combined with the development within the Danish market gardening sector with fewer, more specialized, and bigger market gardens, a picture of a considerate strategic threat for the sales associations begin to emerge, that is to say a threat of direct distribution from market gardens to chains - something that will put pressure on the sales associations more and more. If the

chains to a wider extent contact the big market gardens and take care of logistics themselves, the ground is moving under the existence of the traditional sales associations.

How does the network react to the pressure?

The above shows that the members of the network view the situation and the future differently, and that the Dutch suppliers add a considerable competitive pressure. Also, the sales organizations are in risk of loosing a considerable share of their total sales, because a continuously larger part of the market gardens' production is distributed directly to the customers.

If you look at how the various members of the network react to the threats and especially to the dominant sales organization's economic problems, three types of reactions can be identified:

1. Opportunistic actions
2. System preserving actions
3. Actions of frustration

A number of the large market gardens are able to deliver a large part of their production directly to big customers and to leave the smaller deliveries to the indirect system. Thus, they contribute to the weakening of the economy for the rest of the network, at the same time as they ensure themselves a marketing system in case the network should dissolve. They do no longer feel obligated to support the network because they are no longer members and thus owners. As they have grown and are able to carry out more functions themselves or in cooperation with other large market gardens, it is easier for them to discontinue their membership of the network. It is, therefore, characteristic for this group of large market gardens that they feel they have to become more professional as regards logistics and sale in the coming years. One uses the network as long as it is there, and as long as one can see the advantage of doing so, but one does not do anything actively to preserve it. This behaviour is very much in accordance with Alderson's definition of an organized behaviour system:

"In an organized behaviour system the organizing element is the expectations of the members that they as members of the system will achieve a surplus beyond what they could attain through individual and independent action" (Alderson, 1965, p.25).

The dominant sales organisation's poor economy may be improved by reducing the sales and logistics costs, and by making the network more competitive altogether. Therefore, the board of directors of the sales and trade associations started a number of analyses in order to make the system more rational. Can the coordination between the transport from the market gardens to the main loading points be improved? Can the IT systems be improved? The motive forces behind these initiatives are those market gardeners who still own the sales associations and who still feel that the network is the most effective way of distributing potted plants.

Some of the network members' actions may be due to the fact that a number of market gardens do not have other distribution channels than the sales associations, and they realize that their subsistence basis disintegrate if GGD's economy is not improved. This fact has resulted in severe criticism of the company's management and especially of the managing director. The management does not seem to be efficient and has not been able to reap the benefits that were held in prospect,

when the two largest sales associations merged to GGD. For instance, a market gardener has supposedly stated the following to the press about the managing director:

"He is incredible inspiring in a board, but one must realize that he is not the born managing director. Gasa Group's earnings and sales drop, and everything seems to fall apart".

Also GGD's employees are frustrated by the development. They react by complaining that the customers do not appreciate the service rendered to them, although it – according to the employees themselves – is better than the service provided by the competitors. They also complain about the largest Danish retailer (BM), who has taken over some very important British customers. Further, they blame the suppliers for not behaviouring properly. I.e. they do not meet the deadlines that are set for delivery to the main loading points, which increases the costs and lowers the customer service.

Thus, it has been demonstrated that a network in difficulties brings different actions. The reactions seem to depend on how close ones affiliation to the network is, how one assesses the network's efficiency and future, and what alternative possibilities one has for marketing one's products.

A phase model

It is difficult to safely predict how the network described above will develop. Whether it will dissolve because of the outside pressure and the large market gardens' opportunism, or whether a rationalisation of the systems will be successful so that the economy is improved and the network's viability is ensured. Perhaps it will be necessary to reconfigurate the network totally so that it will be revived as a smaller and different network. However, it is hardly likely that it is abruptly dissolved or discontinued. Too many members are too dependent on the network for this to happen. The situation would be more and more unsound if anything, because the network will be used less and less and therefore, at some point, extensive decisions as regards its future existence would have to be made. The situation is further complicated by the fact that the network has no key decision maker, who e.g. can choose and reject suppliers and who can control the suppliers altogether. The suppliers are free to use or not use the system, to an extent defined by themselves.

Based on this case a more general model for the process in this type of non-centrally controlled network can be defined – a model that is structured as follows:

1. Solidarity phase
2. Dilution phase
3. Dissolution and/or reorganisation phase

In the solidarity phase, the network is under pressure for instance because of the competitive situation and/or the structure development as regards customers and suppliers, but the network members are united and put up a joint front. Everyone is solidary and convinced that the network can bear and is efficient. Everyone has confidence in the management and the chosen representatives, who are expected to be able to trim the network and its functions to everyone's satisfaction. No one leaves the network.

In the dilution phase, the network has been under pressure for some time and the poor results have started to show. There is no longer the same confidence in the network's competitiveness and in the management, and some members have started to look for alternatives. One realizes that the network is off course and drops it while there is still time (rats leave the sinking ship). Thus, the network's difficulties increase and a cumulative effect is a fact. Other members, however, stick to the network, using all their energy trying to save it.

In the reorganization/dissolution phase, anyone can see that the network has no chance of existing as it is. Either the network dissolutes totally because no one wants to stay and try to make it work, or a small group of members decides to reorganise the network and to participate in a reduced and different network which is established under consideration of the new terms. It is assumed that a reorganisation demands both a considerable reduction and investments.

The various types of members will act differently in the above phases all depending on their possibilities and interests. The confidence in the network and the realistic alternatives will determine their behaviour. Gradually, some members, however, have engaged themselves deeply in the network and have taken on a managing role, whereas others are merely in and only contribute with what they are expected to while they reap the benefits of the network.

Conclusion and further research

The case and the phase model do of course only shed a scanty light on the behaviour in networks that are under pressure and in danger of dissolving. Other cases, describing other types of networks, are to be taken into account and analysed in-depth. Networks that vary as regards trades, level in the value chain, extent of solidness, extent of central control etc. This will provide more knowledge of decision processes and how to adapt to environmental pressure.

More knowledge will give the various types of decision makers a better possibility to predict the development and the member groups' reaction patterns. They will be able to assess if the pressure is temporary which will probably extend the network's viability. They will also have a better chance of identifying dissolution tendencies and indications of this, and they will be able to set scenarios of alternative networks.

The objective of such analyses is to give the decision makers a chance of reacting prompt and more efficiently when the network of which they are a part comes under pressure. It may give them a chance of predicting if and when the network will get into trouble, and it may inspire them to taking actions that will improve the situation for the network and its members.

If one considers the network to have a future, one can take actions that will rationalise and consolidate the network, e.g. through shared investments and by creating awareness of a common interest in furthering the networks' performance.

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