

Factors Affecting Cooperation in Networks - Examples from structured and unstructured cases

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Abstract

It has been argued that we need further research on understanding and explaining inter-organizational network formation and the underlying motives for cooperation. The development of a network can follow an evolutionary life cycle path. Cooperation between actors evolves eventually from previous business relations and frequent personal interaction between them, during a long period of time. This is what we define as an unstructured network. Structured networks, on the other hand, are set up for a certain purpose. The time frame is usually much shorter. The networks are created in the sense that they do not build on previous business relations and frequent personal interaction.

Research on networks and cooperation has mainly focused on, as we define unstructured networks and cooperation. During the last years we have witnessed an increase in the amount of structured networks, which are created for certain purposes. These types of networks can often be found in government funded projects, where the aim is to create networks and cooperation in order to strengthen the partners' competitiveness on international markets. The structure, time frame, expectations, trust, choice of actors and atmosphere is often different in these kinds of networks.

Existing network and cooperation theories and research must contextually be extended to cover for situations where the network is structured. The question is if there are significant differences between structured and unstructured types of networks when it comes to, e.g. motives, problems, results and management. One problem of structured networks has much to do with the network functioning. There is an obvious risk that the synergy effects will not take place and the initiated network and cooperation will dissolve. The purpose of this paper is therefore to analyze structured and unstructured networks in order to extend earlier theory and management concepts within the area.

Our purpose is more of an explorative than of a descriptive or confirmatory character. The exploratory character of this study supports a choice of a qualitative research approach. The method used is case studies. Two cases are compared; one characterized as structured and one as unstructured.

Studies on structured networks can give us more knowledge on outcomes and implications for the companies in the network, as well as for third parties. The contribution of this paper is to pinpoint potential problems and opportunities in structured networks, which is knowledge needed for the organization and management of these types of networks. The results from this study show that a structured creation of networks can be problematic e.g. due to lack of trust and commitment, internal competition, opportunism, and differing expectations.

Keywords: cooperation in business networks, motives, expectations, trust, conflicts

Introduction

During recent years we have witnessed a remarkable growth in different forms of cooperation between organizations. These cooperating organizations form different kinds of networks, with different purposes. A business network is two or more organizations involved in long-term relationships (Thorelli 1986), and it can be seen as complex business markets, with nodes as business units and relationships as threads (Håkansson and Ford 2002). Within every network lie possibilities and limitations for every company and groups of companies (Hägg and Johanson 1982). Each of these companies has direct or indirect relationships to other companies in the network. Some of these companies are chosen for more intensive cooperation. Ebers (2002) argue for further research on understanding and explaining inter-organizational network formation and the underlying motives for cooperation. These studies can give us more knowledge on outcomes and implications for the companies in the network, as well as for third parties.

The importance of friction-free cooperation between actors in networks is well recognized in industrial marketing research (Axelsson and Easton 1992; Håkansson and Snehota 1995; Möller and Wilson 1995). Researchers have, e.g. been interested in motives for cooperation (Axelrod 1984; Håkansson 1982; Jarillo 1993), analysis of how cooperation should be organized and managed (Araujo, Dubois and Gadde 1999; Håkansson and Snehota 1995; Smith Ring and Van de Ven 1994), cooperation antecedents or facilitators (Spekman and Celly 1995), cooperation development phases (Tähtinen 2002; Dwyer, Schurr and Oh 1987), and finally researchers have also been interested in studying and discussing results of cooperation (Hagberg-Andersson 2006).

The development of a network can follow an evolutionary life cycle path. Cooperation between actors evolves eventually from previous business relations and frequent personal interaction between them, during a long period of time (Håkansson 1982). Cooperation is a natural prolongation of previous activities. This is what we define as an unstructured network. Structured networks, on the other hand, are set up for a certain purpose. The time frame is usually much shorter. The networks are created in the sense that they do not build on previous business relations and frequent personal interaction. Common examples of these types of networks can be found in government-funded projects, where the aim is to create networks and cooperation in order to, e.g. strengthen the partners' competitiveness on international markets. The project period is often not that long. Three years seems to be the standard in, e.g. EU-funded projects. There are also projects with much shorter duration. The consequence is that the network has to start in full swing immediately after the start of the project, in order to achieve the aims during the project period. All project networks cannot though be defined as structured networks. If the project network builds on existing networks, the character is more unstructured.

The research on networks and cooperation has mainly focused on, as we define unstructured networks and cooperation. As far as we know, there are very few studies on, e.g. structured project networks, especially in the industrial marketing literature. Some of the researchers have focused on issues directly connected to the project network (e.g. Ahlström-Söderling 2002; Loeser 1999). Others have mainly collected their empirical data from project networks, without pointing out any specific issues connected to that type of network (e.g. Sakakibara 1997). More examples of research on project networks can be found, e.g. in the tourism sector (e.g. Björk and Virtanen 2005).

In a study of EU-financed business networks in Sweden, Ahlström-Söderling (2002) found out that networks that emerge spontaneously around a desire to take advantage of a business opportunity have a greater probability to survive over a longer period. The reason for this is that the need for cooperation is real and not externally created. These results indicate that a structured creation of cooperation can be problematic, because of different expectations, conflicts and lack of trust.

Also Loeser (1999) discovered some problems with project networks. His study was conducted in an EU-financed research project, with the aim to provide companies with a holistic management concept for designing and operating networks. He found out that it is important that aspects like conflict regulation, sharing of gain or loss, liability and know-how protection, etc. are discussed and decided already in the project network configuration phase.

Existing network and cooperation theories and research must contextually be extended to cover for situations where the network is structured. The question is if there are significant differences between structured and unstructured types of networks when it comes to, e.g. motives, problems, results and management. One problem of structured networks has much to do with the network functioning. The make-up of the network, especially the fit between people and firms is important. It is not easy to build consensus in and commitment to a network that is structured. In the end much energy is wasted on coping with problems and not with opportunities. There is an obvious risk that the synergy effects will not take place and the initiated network and cooperation will dissolve. The purpose of this paper is therefore to analyze two cases of structured and unstructured networks in order to extend earlier theory and management concepts within the area in order to give us more knowledge on outcomes and implications for management of companies in networks.

Cooperation in networks

Cooperation in networks is quite common. According to a survey, 40% of Finnish companies are involved in industrial activities in a partnership, based on a partnership deal (Tsupari et al. 2004). Some types of companies are more involved in networks than others. For example, big industrial firms and service companies are more integrated than companies in the construction industry. Reasons for seeking cooperation were a lack of own resources, economies of scale and extended flexibility. Motives for cooperation were a bit different depending on which industry area the company belonged to (Tsupari et al. 2004).

Cooperation can be seen as channels to resources (Hammarkvist, Håkansson and Mattsson 1982). These relationships provide an access to complementary resources, which would be unavailable without the relationship. The actors can have both common and conflicting interests, but cooperation can still be effective (Axelrod 1984). Eber (2002) discuss motives for cooperation, for example cost reduction. Another motive can be better access to markets, technology, larger economies of scale or a possibility to benefiting from economies of scope (Contractor and Lorange 1988). When choosing a partner for cooperation a companies looks for similarities before they lock themselves into a relationship (Freytag and Ritter 2005). All connections to other actors in a network is filled with opportunities and access to resources and knowledge, formed by complex interactions, adaptations and investments within and between the companies over time (Håkansson and Ford 2002).

Most companies have a need to control their environment. This control or management task is also to help the surrounding companies to clarify their own role and understanding of the network. (Håkansson and Ford 2002) An ideal network environment is one where there is no fear of opportunism, and norms play a very significant role in structuring economically efficient relationships among independent firms (Heide and John 1992). The networking process depends on such different situational factors, which are identified, analyzed and incorporated into the decision making process. The decision is based on analytical insight and not on gut feelings (Freytag and Ritter 2005). Companies choose with whom they wish to cooperate. The choice is based on analysis, but has also to do with seizing the opportunity, as it comes by.

As actors have conflicting interests, there is always a risk of opportunism. If investments have been made, this has created a more complex situation. Both cooperation with another company and adaptation are shaped by future expectations of the relationship. These are planned through present interaction, but with intention that they come into effect at a future time (Medlin 2004).

In structured networks the time perspective is often shorter than in unstructured networks. The start-up and development of relationships is different than in long-term relationships. Short-term relationships can well develop into long-term ones, but the initial start-up, structure and initiative (sometimes from the outside) is different. One motive is still the same, access to resources outside the company. The management of cooperation is also different. The project can be managed from outside the company.

Resources and cooperation

Interdependence is, according to Pfeffer and Salancik (1978), important to a company because of its impact on the ability to achieve its desired outcomes. Exchange and cooperation within networks gives access to resources. The expected future gains keeps the parties motivated for ongoing cooperation. Resources are needed from the environment and organizations depend on external parties for their activities (Pfeffer and Salancik 1978).

Traditionally resource development has been thought to take place within companies, but to a large extent it also appears to take place between companies (Håkansson and Snehota 1995). In today's business world companies might be granted resources if they accept to be involved in structured cooperation within a network.

In a network there are complementary or competing activities (Gadde and Håkansson 1993). Each firms' performance depends on a series of upstream and downstream relationships, on which they are dependent for resources (Campbell 1998). Power derives from having resources, which are needed by the other and from controlling the alternative sources of resources (Emerson 1962). In these industrial networks the actors control some resources directly and some resources indirectly via dependence relations with other actors (Håkansson and Johanson 1988). The interest structure is shaped by these relations and their common and conflicting interests.

Håkansson and Johanson (1988) discusses two different types of cooperation; formal and informal. Informal cooperation is used when the parties are interested in cooperation with the other counterpart's network, but without the visibility. However, formal cooperation is an important tool to be used by groups, who control the formal side of the firm, to commit to new network relations to the firm (Håkansson and Johanson 1988).

Cooperation between companies is based on previous experiences. Every cooperation episode is based on earlier elements and processes of interaction with other actors in a network. The outcome of the cooperation between the companies depends on how episodes in the past have been handled (Håkansson and Snehota 1995) Many aspects of the agreements between the parties are not fully formalized nor based on legal criteria, and instead the relationship is based on mutual trust (Håkansson 1982).

Expectations and trust

Interdependencies exist, according to Pfeffer and Salancik (1978), whenever one actor does not control all of the conditions necessary for the achievement of an action. Firms are not islands, but linked together in patterns of cooperation (Richardsson 1972), where trust is built up successively against opportunism as time goes by.

Lack of trust between partners is a common reason for the termination of cooperation. In Young and Wilkinson's (1989) study, the respondents interpreted trust on a company level as an attitude or a feeling towards the partner. Some of the respondents even used trust as a synonym for cooperation. Trust can act as a substitute for written contracts. *"Trust is the expectation that an actor (1) can be relied on to fulfil obligations, (2) will behave in a predictable manner, (3) will act and negotiate fairly when the possibility for opportunism is present"* (Zaheer, McEvily and Perrone 1998, p.143).

When two companies start to cooperate both have certain expectations. Each party in a relationship has both common and conflicting interests (Gadde and Håkansson 1993). In a situation when both parties can win by cooperating, cooperation is recommendable. Having an independent third party to create a frame for cooperation can sometimes be a good solution. This arrangement can be seen as

more straightforward as compared to a situation when the party in control is a company that you are dependent on (Hagberg-Andersson 2006). Being able to control activities and investments are important in network cooperation.

Ties of dependence imply, to some degree, the possibility to grant or deny, facilitate or hinder the other party's gratification (Emerson 1962) and may hereby hinder the companies' activities. Cooperation with another party always involves a certain part of uncertainty. A relationship must therefore be built gradually, by an interaction process, where mutual trust is built successively (Gadde and Håkansson 1993). Cooperation with a new company needs time.

A clear connection can be found between written contracts and trust (Halinen 1994). Parties may favour oral agreements because they have trust in each other. Trust appears, according to Campbell (1998) as a safeguard in customer and supplier relationships.

Commitment to cooperation is important for the success and continuity of it. In an industrial relationship context Dwyer, Schurr and Oh (1987, p.19) defines commitment as "*... an implicit or explicit pledge of relational continuity between exchange partners*". Partners have to show tangible signs of commitment by devoting some kind of resources to the relationship. If there are no signs of commitment, the other partners' commitment will in the same manner fade away.

Research method

The purpose of this paper is to analyze and compare two cases in order to extend earlier theory and management concepts within the area. Our purpose is more of an explorative than of a descriptive or confirmatory character. The exploratory character of this study supports a choice of a qualitative research approach. A feature of qualitative data is their richness and holism, with a strong potential for revealing complexity, nested in a real context (Miles and Huberman 1994). A qualitative research approach is also recommended for the purpose of generating new empirically grounded theories (Glaser and Strauss 1967; Strauss and Corbin 1990) or in cases when existing theory seems inadequate (Eisenhardt 1989). Case studies are also often exploratory or descriptive in nature (Ghauri, Grønhaug and Kristianslund 1995).

How to interpret and assess validity and reliability in case studies has been discussed. One result of this discussion is that these concepts are not relevant in case studies (Gummesson 1988; Merriam 1994). New concepts have to be introduced. One of these concepts is trustworthiness (credibility), a concept we emphasize in this study. The research process from problem recognition to conclusions is long. The decisions made during this process will influence the trustworthiness of the presented results. Some decisions the researcher has to make are related to the method and how it is used.

Our study of the first case, the furniture case, started when from discussions with a managing director/owner of a firm. He had initiated a network. In the network conflicts and problems arose, which led to a failing network. His experience from this was negative and he was very willing to share his experiences with us. He had a positive attitude, when we suggested that this case would be an interesting study object. As he was the initiator and also the organizer of this network, he was familiar with the problems. This resulted in well-elaborated discussions, i.e. "thick descriptions".

In the furniture case we used personal interviews or discussions to collect data. Two interviews were done. Because of the exploratory character of this study, some initial questions were raised mainly to start the discussion. The discussions provided us with the opportunity to ask probing questions. During the first interview, no interview guide was used. An initial analysis of the data gave us ideas and thoughts, which were further elaborated in the second interview. These interviews were complemented with data collected from websites and documents.

Our second case, the calibration case was based on 8 personal interviews with persons involved in the start-up of a laboratory for calibration of tool used for production. Little material had been written about this project. Personal interviews were chosen in order to get more in-depth information about the study. Persons chosen for the interviews were all persons, which were involved in the start-up of the project. These were managers or owners of firms involved in the network of firms, who had the

opportunity to join the project. The persons interviewed were very positive about the project and were willing to share their thoughts and experiences about the start-up.

The furniture case

The furniture case can be characterized as a structured cooperation network. The network was in the turn of the millennium initiated by a company, manufacturing high quality furniture components, as subcontractor for furniture manufacturers. The starting point was an announcement on the web-sites of a main public funding organisation for research and development projects. They sought for partners to a project where the aim was to create networks within the furniture component industry. The networks would function as export partner groups, where the partners complementing products would create more of an overall solution for the customers, than the products by themselves. This was something that the managing director of the initiating company had thought of for a longer time, so the announcement functioned as a trigger.

The initiating company started a discussion with two other actors or companies. One of the actors was already manufacturing furniture components and the other was actually not, but had resources and competence to do so. The suggestion was that the three actors should set up a network, and apply for public funding. Funding was granted and the project started. In the project network mainly four actors were involved. The initiating company became project owner and administrator. The other actors were the project funding organisation and the two other partners. Even though it was a public funded project, the partners did not sign a written agreement.

The initiating partner was, when the project started, mainly specialized in composite components. They also had good skills in developing different tools for component manufacturing. Their resources and capacity to manufacture components in other materials were not sufficient. The second partner was specialized in manufacturing wooden form pressed items, both components and furniture. Finally, the third partner in the network was a supplier and contract manufacturer for several industrial sectors. They produced e.g. high standard steel and aluminium components, and had not until the project manufactured components for the furniture industry.

In the beginning, the network had no customers for their products. The aim was to develop a component assortment, and also to develop furniture parts with several materials (wood, aluminium and composite). Instead of dealing with several component suppliers, the customers would get ready furniture parts when buying from the network. The initiating company developed all the products to be sold in the network, and they also manufactured the tools. Expectations were high. All the partners calculated with a substantial increase in their total turnovers. It was arranged that the initiating company would function as seller in the network, and the other partners would function as subcontractors. The initiating company was the representative for the network, and would get commission for that.

The project network was not built on a previous existing network. The three partners knew each other from before. In a small scale some prototypes had been developed together, but no further business had evolved from that. The managing director of the initiating company was a little bit concerned before the project, because they as a company were a lot smaller than the other two partners. Being the initiator and also being the partner developing the products and the tools, he felt that they would have control in the network.

As the initiating company is a small company, they do not have enough resources and capacity to manufacture all the components and furniture parts they would like to. Their motive for setting up the project network was to get access to complementing resources and competencies and getting access to greater manufacturing capacity. The managing director of the initiating company is as he calls himself a product developer. He has the ideas, but his own company cannot alone fulfil them. For the other partners, the motive for participating in the project network was not the same. The other partners saw mainly a chance to increase their turnovers and revenues, and the project was more of a complementing activity beside their main operations.

The network project started as intended. The partners developed new products, and they were exhibited on the most important international furniture industry fair. They got some new customers immediately and the operations started gradually.

The network though collapsed, when the carpentry company, roughly in the middle of the project period, started to sell components developed by the initiating company directly to customers acquired through the network. They even sold the components to a lower price, compared to selling as a subcontractor to the initiating company. These components were manufactured with tools developed by the initiating company. The aluminium manufacturer started also gradually to sell directly to customers, and not through the network. The difference compared to the carpentry company, was that they did not sell components manufactured with tools developed by the initiating company. They developed own components. In the end, this meant that the initiating company had, through the project, in a sense created an additional competitor to them. The carpentry company was already within the industry, but not the aluminium manufacturer.

There are different reasons why they network collapsed. First of all, the initiating company expected and wanted that the public funding organisation should have intervened when the problems arose, because the initiating company felt that they did not have the power to control the others. The absent of a written agreement, made an opportunistic behaviour possible. Another reason was that motives and expectations of the partners were different. The initiating partner's aim with the network was on a longer term, while the other partners expected increasing sales immediately. The other partners' commitment can be questioned, since the project was not that important for them. The fact that the network did not build on previous relations, can also give some explanations to the problems.

The project was a huge disappointment for the initiating company. Despite that, they started quickly to build a new network with new partners after the project. The new network is built on the same motives as before; access to complementing competencies and resources. The initiating company sees no risks in the new network, mainly because they have learned from their mistakes in the previous project. No written agreement has been signed for how the network should function, but the partners have legal ownership agreements when it comes to tools and products. The function of the network as such, builds on the partners' compatible motives, trust and commitment.

Today, the initiating company can, together with their several network partners in principle deliver components and parts to whole furniture. The customers' or the final manufacturers' task is to assemble the furniture and put their own label on it. After that the furniture is ready to be sold to the retail dealers.

The business for the new network has grown many times over. Despite the larger network, they still have delivery problems, because they do not have enough manufacturing capacity. The sales could be even larger. The former partners, the carpentry company and the aluminium manufacturer, have lost the customers they started to sell directly to. Their problem has been that when it comes to sole components, there is always some manufacturer from other countries who can sell to lower prices.

The calibration case

The calibration case has been presented and analysed (Hagberg-Andersson 2006) as an example of a more unstructured type of cooperation and adaptation in a network. The cooperation was initiated by a focal buyer. A suggestion came from the buyer that the suppliers would start calibrating their tools used in the production process. The suggestion was not a demand, rather an advice, that the suppliers would start focusing on this quality improvement in their production process.

The focal buyer contacted the local business association and was later not involved in the following steps of the process. Three other parties took care of the practical issues for the start-up of a calibration laboratory. There was a need for a calibration laboratory closer to the companies, as the existent laboratories were located several hundred kilometres away from the companies, which needed it for the calibration of their tools. As the companies did not have several tools of the same kind, it was hard to do without the tools as they sent it away to be calibrated. They had to be without the tools for several days. When a possibility like this came along, to start a calibration laboratory closer to the suppliers who needed it, it was an attractive chance that the suppliers were interested in.

The three parties that started the process were the local business association, a local vocational school and a local polytechnic. The focal buyer was contacted in the end, when it was time to pay a

share in the laboratory. The other shares were owned by 10 local suppliers. The laboratory was mainly founded on the needs of the supplier companies, but the schools involved were also benefited from the laboratory. The start-up of the laboratory had a positive effect on the quality work in the involved companies. As they did not have to send away their tools to a calibration laboratory located far away in another part of the country, the companies could save both time and money. The quality of the produced goods could also be improved. This was a benefit for both the suppliers and the focal buyer.

The focal buyer had not had a calibration laboratory of its own, rather a simple work station for the tools. The buyer could hereby also benefit from the new calibration laboratory, as it not only meant that their own production process was improved, but also the production process of its suppliers. All the involved parties could benefit from this loosely structured cooperation. The initiative came from one actor in the network, the practical work was done by three other actors and in the end everyone paid for a part of the laboratory and the equipment.

If the laboratory had placed in the premises of the focal buyer the buyer would have been able to keep track of the tools of their suppliers. When some of the suppliers also produce for the buyers' competitor it is better for the suppliers that the laboratory is situated outside the premises of the buyer. In this way the power of the buyer is diminished. All the practical work is handled by a third party and the control and power is not used in a way that can affect the relationships of the network in a negative way.

The calibration laboratory has existed for over 10 years. After being owned by the suppliers and the focal buyer it has recently changed into becoming privately owned. It has been a successful service provider for the region and its existence has been good for all involved parties.

This unstructured cooperation took place in an already existing network. Most of the parties knew each other from before. The contact areas were the local business association and the schools. The resources in the network could be created with support and cooperation from participating parties. Finances could be partly applied for as external funding, but the resources were mainly put in one basket, as the participating suppliers and the buyer bought one share in the laboratory in the end of the process. No one of the companies owned any more than the other parties. The laboratory was run by a third, neutral party, and everyone who owned a share could use the laboratory for a lesser fee the first years. Other, non-owners, could buy the same service as well, but the fee was then a bit higher. The third party took also care of the secrecy of the services. As the tools were left at the laboratory the information of the tools or their owners were not revealed to any other parties. In the group of suppliers were also suppliers, which were competitors. The calibration laboratory and its personnel could be trusted as a third independent party.

Conclusions and discussion

In the table cooperation in structured and unstructured networks are compared. Structured and unstructured networks differ in several ways. The **structure** can be created or more evolutionary and can be **managed** more from the top or by decisions taken democratically.

Table: Comparison of the two studied cases

	The furniture case Structured network	The calibration case Unstructured network
Structure	<ul style="list-style-type: none"> • Created 	<ul style="list-style-type: none"> • Evolutionary
Management and control	<ul style="list-style-type: none"> • Network initiator/third party 	<ul style="list-style-type: none"> • Third party
Antecedents	<ul style="list-style-type: none"> • Not based on previous cooperation and personal relations • Based on initiators needs and commitment 	<ul style="list-style-type: none"> • Based on previous cooperation and personal relations • Based on mutual needs and commitment
Time frame	<ul style="list-style-type: none"> • Short term planning 	<ul style="list-style-type: none"> • Long term planning
Motive and	<ul style="list-style-type: none"> • Access to external resources 	<ul style="list-style-type: none"> • Time and cost savings, quality

expectations	and manufacturing capacity, <ul style="list-style-type: none"> • Increase in turnover 	improvement
Power and dependence	<ul style="list-style-type: none"> • Power struggle • Asymmetric dependence 	<ul style="list-style-type: none"> • Minimal power struggle • Symmetric dependence
Reasons for conflicts	<ul style="list-style-type: none"> • Lack of trust, internal competition, opportunism, differing expectations 	<ul style="list-style-type: none"> • None
Arrangements for conflict avoidance	<ul style="list-style-type: none"> • None • Role of third party unclear 	<ul style="list-style-type: none"> • Internal competition and potential conflicts avoided through third neutral party arrangements
Benefits	<ul style="list-style-type: none"> • Initiator learned from the mistakes made 	<ul style="list-style-type: none"> • Mutual benefits for all parties

In both cases a third party handles the management. Especially in the unstructured network cooperation the actors are more in control. They are in control of the resources created as they are all owners of the calibration laboratory. In this way they could also control all the investments they had made. The **motives** in this case were time and cost savings, as well as quality improvement. In the furniture case the motives and expectations were access to external resources and manufacturing capacity, as well as an increase in turnover. As conflicts appeared in cooperation access to these resources did not exist any more.

In both cases we can also find **time** as a factor. In the furniture case, in the structured network we have more short term planning. In the calibration case we have more long term planning as well as less power struggles. The dependencies are also different. The dependence in the furniture case is more asymmetric, as the initiator of the network was the one who felt they had lack of resources and manufacturing capacity. In the calibration case the dependence is more symmetric. Symmetry in dependence creates the power frame for the cooperation between the firms in the network. This power can be used wisely or unwisely.

In terms of management of these networks we can see a difference. In the unstructured network the **management and control** is in hands of a third, neutral party. The decisions about investments in resources (equipment and tools for the laboratory) are taken within the group of the local business association. In the structured network the initiator is also a third party, but the decisions are taken to more extent without control of the other firms. Each actor is more independent and acts in own interests. In a structured network each actor steps out of their own network environment and the risk of opportunism and conflicts is larger. Loosing ones reputation in another backyard than your own is not as bad for some firms as in the environment where your cooperation partners are in your daily life. The situation creates a larger risk for opportunism than in the case with cooperation that evolves in a more evolutionary way with trust built up successively.

In the calibration case there was less **reasons for conflict**, as management and control was taken care of by a third party. The third party was neutral and could also guarantee safety for all business secrets that needed to be kept. The internal competition could be kept out, as the start-up of a common new calibration laboratory made everyone winners. In the same group of founders there were competitors as well as the focal buyer with more power than the rest of the smaller companies in the founding group. There were no problems with lack of trust, as there was in the furniture case. One reason for conflict is different **expectations** and an unclear role of the third party. By using a neutral third party conflicts can be avoided.

The **power of resources** is kept within the group in the calibration case, but in the furniture case the resources stayed with each one of the cooperating companies. The other companies had no access to these resources as the problems increased. The dependence within this structured network was different for the companies involved. After the access to external finance was clear some of the motives for further cooperation disappeared. In the calibration case the access to resources remains the same, more unaffected of the cooperation companies. This situation is less vulnerable than in the furniture case, with more competition for access over resources. The calibration case can be compared to a win-win situation and the furniture case a win-lose situation, and this can also be explained by the opportunism that could be found in the furniture case in the structured network.

The involved parties in both the compared cases have learned a lot from cooperating in these networks. In one case the initiator has gained a lot of experience from the last years of cooperation. In the other case, the whole group of cooperating companies have become richer in terms of resources created and trustworthy partners, after several years of cooperation in the same network.

In structured networks there is more need for clear rules in cooperation. Having a powerful third party involved can be a positive thing, if it helps the power and dependence balance. Getting to know each other on beforehand creates a good ground for upcoming cooperation and trust.

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