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CONNECTED SYNERGY

New Perspectives on Synergy in M & A Research

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The effects of Optiroc Group AB's acquisition of Stråbruken AB in 1997 were studied in a special report written on the initiative of the Swedish Competition Authority. Optiroc and Stråbruken were both companies producing building materials. The report states that the number of competitors had decreased and that Optiroc through the acquisition had strengthened its dominant position by adding distribution channels[1]. In its announcement of the acquisition, Optiroc claimed that the acquisition would lead to increased imports of products, an effect that was not realised. No new actors had entered the market. The concentration in some market segments and distribution channels had increased as a result of the reduced number of suppliers (Bengtsson & Marell, 2001), "…the study shows that competition was negatively affected… through a reduction in the number of suppliers. Consumers thus have less freedom of choice." (*Konkurrensverket*, 2001, p. 17). This meant that customers buying from the same suppliers as before now had fewer options, which could be considered as a negative effect (Bengtsson & Marell, 2001).

Our assumption is that connected companies to merging, acquiring and acquired companies will be affected (cf. Anderson, Havila and Salmi, 2001), will react and maybe take action. There is a need to study such effects on connected companies further as the above illustration indicates. The aim with this paper is to explore and describe synergy realisation on suppliers connected to merging, acquiring and acquired companies. Realising synergies is an important

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[1] One explanation for this might be that the type of products is rather heavy with low economic value, therefore transport cost is an important barrier. Sweden is a small market and differences in standards could also be an explanation.

factor for the merging companies. How does the realisation of synergies in combining companies affect suppliers (or connected companies in general) and how?

Business networks, mergers, acquisitions and synergy

A firm is working in interaction with its environment and in recent years the interest in dyadic relationships connectedness has grown (Anderson, Håkansson & Johanson, 1994). A business network can be described as in Figure 1. Interaction is seen as a process, relationships are not static, and companies react to changes in the network (Axelsson, 1992; Håkansson & Snehota 1989). Effects that a company faces can depend on the connectedness within the network and activities in one relationship may effect activities in connected relationships (Anderson et al., 1994).

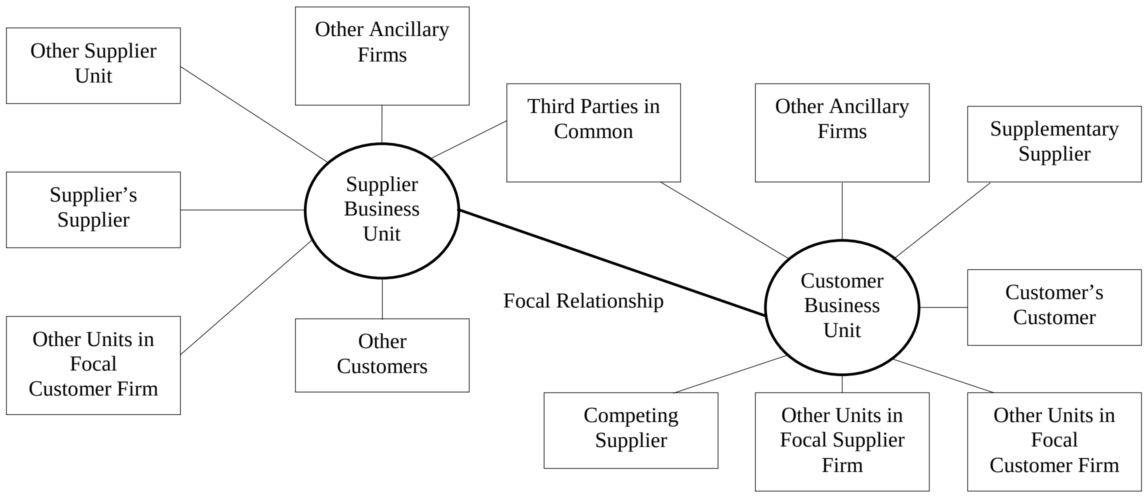

Figure 1: Connected Relations for Firms in a Dyadic Relationship, (Anderson et al., 1994).

”In the 1890s the merger route became more popular…” (Chandler, 1977, p. 286). The nature of the firm is by Penrose (1959) defined in the following way: “It is a complex institution, impinging on economic and social life in many directions, comprising numerous and diverse activities…” (Penrose, 1959, p. 9). As described by Chandler (1977) the phenomenon of mergers and acquisitions is nothing new. A concentration of companies gives ‘fewer’ relationships, since the number of actors decreases. The literature on mergers and acquisitions has so far concentrated on the combining entities and their integration. Strategic, organisational fit, and synergies have been in focus (Chatterjee, 1992; Datta, 1991). Also processual matters such as pre-merger negotiations, acquisition behaviour, post-merger integration, and post-merger performance have been focused (Hunt, 1990; Lindvall, 1991; Nupponen, 1995; Shrivastava, 1986; Walsh, 1989). It is often concluded, though, that anticipated gains from a merger or an acquisition rarely appear and that they fall short of expectations (Chatterjee, 1992; Hunt, 1990; Lubatkin, 1983).

There are different types (or classifications) of mergers and acquisitions which might have different effects on the companies involved. Mergers and acquisitions can be categorised in three main groups; vertical, horizontal and conglomerate. According to Larsson (1990) this typology by the Federal Trade Commission is the most established. Briefly they can be described in the following way: Vertical mergers (acquisitions) are integration forward and/or backward in the value chain, from raw material to finished products (Larsson, 1990; Vaara, 1992). Horizontal mergers (acquisitions) could be described as integrating with one of your former competitors (Larsson, 1990) or two companies of the same kind in the same industry (Vaara, 1992). This could aim at restructuring the market or co-ordinating product development (Larsson, 1990). Conglomerate merger (acquisition) can be divided into three sub-categories (Larsson, 1990). The first is market concentric, i.e. different products but related functionally. The second sub-group is product concentric, i.e. the same products but different markets. The last sub-group is a ‘pure’ conglomerate, i.e. when unrelated businesses are merging or acquired (Larsson, 1990).

Synergy and merger motives

One very important reason for mergers and acquisitions is synergy (Larsson, 1990; Berkovich & Narayanan, 1993; Gupta, LeCompte & Misra, 1997). Berkovich and Narayanan (1993) conclude that most take-overs, 75 per cent are motivated by synergy. Synergy, according to Ansoff (1984), is a broader concept of economies of scale (cf. Chandler, 1962; Thompson, 1967). Synergies are obtained through the economic gains as a result of combining the joint resources of the companies. Motivated by synergy, acquisition motives could be exemplified by e.g. an increase in market shares, reduced or eliminated competition, quick and beneficial entry into a new business, impulse acquisition of a seemingly cheap business, new technology and rapid growth (cf. Shrivastava, 1986). According to Bengtsson, Holmqvist and Larsson (1998) and Axelsson (1992), the reasons for integration are e.g. to reduce risk and increase company effectiveness in both production and distribution. However, the most important factor for the realisation of synergy is to what extent organisational integration has succeeded (Larsson and Finkelstein, 1999).

Synergy developed as a concept in the 1960s for evaluating the coherence of a company. The outcome of synergy realisation have not been beneficial in mergers and acquisitions, mainly because the identified synergies was not realised as a result of the merger or acquisition. The reason for this was a management problem (Ansoff, 1984) or that companies lacked analysing tools for the synergy realisation (Porter, 1998). According to Larsson (1990) "…co-ordination mechanisms are almost exclusively oriented towards how operations are to be co-ordinated rather than towards which benefits are sought by the co-ordination" (Larsson, 1990, p. 80). What is meant by this statement is that co-ordination of activities described in the literature is a matter of how to co-ordinate and not why the co-ordination is made, which would be the synergy. Being "…a measure of joint effects" (Ansoff, 1965, p. 72) synergy is a very important requirement for a firm's strategic decisions. The concept is also closely linked to the performance of the company(ies) (Ansoff, 1984).

In Ansoff (1965) synergy is conceptualised around the annual rate of return on investment, ROI. "In a majority of firms, advantages of scale exist" (Ansoff, 1965, p. 74), which indicates that for a 'fixed' investment, products could realise higher revenues and lower cost of production that is 'combined' rather than 'separately'. A popular way to describe synergy is to say that 2 + 2 = 5, i.e. "…the firm seeks a product-market posture with a combined performance that is greater than the sum of its parts." (Ansoff, 1965, p. 72). According to Ansoff (1984) negative synergies are when the strengths and/or weaknesses of the company are of no use in the utilisation of the threats and opportunities of the firm. New capabilities of the firm must be identified. A way to describe negative synergy would, to use Ansoff's (1984) wider concept following the simple description of positive synergies, be subsequent to 2 + 2 < 4. There are other definitions of synergy e.g. fission synergies, 5 = 3 + 3, which means that: "A unit beginning to experience diseconomies of scale may first need to grow larger through a corporate combination in order to be able to split into synergistic units" (Larsson, 1990, p. 179).

Ansoff (1965) discusses four major types of synergy, of which three are directly seen as the components of the ROI formula (Ansoff, 1965, pp. 75-76): (i) Sales synergy means e.g. using common distribution channels, sales administration, advertising and/or warehousing. (ii) Operating synergy means e.g. large-lot purchasing, using facilities and personnel more efficiently or effectively, spreading overhead costs. (iii) Investment synergy means e.g. using the same production plants, transfer of R&D from one product to another. (iv) Management synergy can not be seen in the ROI formula but is according to Ansoff (1965) very important for the total effect. Different types of industries have different needs of management skills. Some industries can complement each other and top management skills are useful, however in some other cases top-management skills cannot be transferred, i.e. synergy would be negative. An interesting fact mentioned by Ansoff (1965) is that these variables viewed in a time perspective add a fourth synergistic effect. This is described as the rate of change in the three previously mentioned variables. Other categorisations of synergies have been made (cf. Lubatkin, 1983; Chatterjee, 1986) and Larsson (1990) link Chatterjee (1986), Ansoff (1965) and Lubatkin (1983) together and list the following types of synergy: (i) market/power synergy, (ii) operational synergy, (iii) management synergy and (iv) financial synergy.

Mergers and acquisitions affect the industry structure and Porter (1998) identifies elements of industry structure. Many of these elements are closely related to synergy intended to achieve through a combination of entities. Examples of this could be a buyer power change through concentration and buyer concentration versus firm concentration. Other examples are threats from substitute products and supplier concentrations. Porter says about the effects of industry structure: “The industry trends that are the most important for strategy are those that affect industry structure.” (Porter, 1998, p. 7). There is a close link between strategy and synergy (cf. Johnson & Scholes, 1993) and mergers and acquisitions do affect the industry structure. It is therefore logic to say that there is a link between synergy and industry structure. This means that synergies do not only relate to the companies involved but also to companies connected to the merging and acquiring companies. The synergy concept in Ansoff’s (1965) definition, is intended as a concept from the perspective of the merging companies or the acquirer and the acquired. Thus synergies are ‘internal’ and appear *within* a merger or an acquisition.

Synergy → appear *within* the merger or acquisition

According to Larsson (1990) many studies fail to go further than the merging and acquiring companies in the discussion about synergy. In the above discussion there are indications of mergers and acquisitions having effects linked to a third party. Synergy concerns ‘internal’ matters and the merging companies connectedness to other firms indicates a need for a wider concept of synergy i.e. an external approach on synergy.

Beyond a ‘traditional’ view on synergies

Havila and Salmi (2000) studied the graphics industry with a focus on radical and incremental changes in business networks. Their findings show that mergers and acquisitions may act as ‘triggers of radical change’ (Havila & Salmi, 2000, p. 105). Radical changes in business networks are according to Havila and Salmi (2000) when new relationships develop and old relationships are terminated. In the study by Havila and Salmi (2000) there are some supplier effects to be mentioned. One of the acquisitions made lead to increased prices from suppliers since the acquirer was considered as not trustworthy and therefore no credit was given to the acquired company by the suppliers. In one of the other acquisitions it made the acquirer stop using one of the acquired companies suppliers which had radical effect on the supplier since it lost a major part of its sales. The termination of the relationship also had effect on the supplier's suppliers since they also lost business as a consequence of the acquisition. The acquirer also gained better price conditions from some of their own suppliers as a result of the acquisition.

Anderson et al. (2001) studied customer and supplier relationships in acquisitions. The study uses the graphics industry case as in Havila and Salmi (2000) for a conceptual discussion on "…effects – intended and unexpected – acquisitions may have on…" (Anderson et al., 2001, p. 576) relationships with the integrating companies' existing customers and suppliers. The study discusses the immediate customer and supplier relationships even though - as showed by Havila and Salmi (2000) - mergers also may have effects in the next level of relationships. One of the acquisitions studied by Anderson et al. (2001) and Salmi, Havila and Anderson (2001) had intentions not to affect the integrating companies local customers. Another intention was to use free production capacity, in order to compete with shorter delivery times. This was positive for both existing relationships and new customers. The acquirer also got new customers through the acquired company. A production process was missing in the acquired company and customers could now have this service through the acquirer. To reduce effects in the combined company on non-local customers, the respective companies sales organisations have been co-ordinated. Also there were expected effects on supplier agreements, such as lower prices, however the studies by Anderson et al. (2001) and Salmi et al. (2001) do not reveal any outcome of this intention. In addition to this the acquirer faced effects as a supplier to a company involved in another acquisition as described in the Havila and Salmi (2000) study. Unintended effects on customers and suppliers found in the study by Anderson et al. (2001) were that the acquired company's customers started to purchase from other sources as a result of the acquisition. This loss of business was due to the fact that customers did not trust the new company.

These findings suggest a broader concept of synergy which involves connected companies and the effects these companies experience due to a merger or an acquisition in the network.

This will be referred to as connected synergies, i.e. effects on companies or organisations that previously have had, will continue to have or will establish a relationship with the companies that merge or the acquirer and the acquired.

Connected synergies → appear 'outside' the merger or acquisition

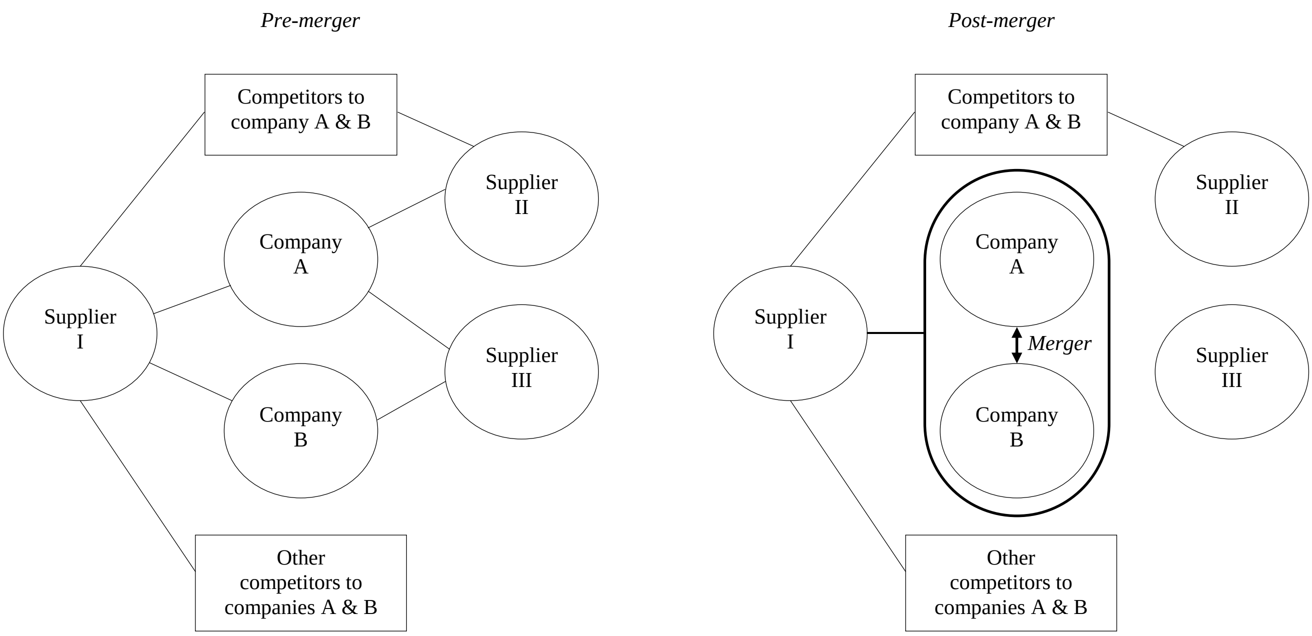

Figure 3: Connected changes.

To illustrate connected changes, see Figure 3. Consider the situation before the merger between Company A and Company B. Supplier I has a relationship to all companies within the described network. This does not change as a consequence of the merger between companies A and B, i.e. Supplier I has a relatively strong network position. For the two other suppliers the situation is more difficult especially for Supplier III where the figure shows a terminated relationship with the merged Company AB. Supplier II is in a somewhat better situation in comparison with Supplier III. A supplier with a unique position, being the only producer or with a unique production process, is of course in a situation where a merger or an acquisition among the customers may have no effect. It will still be possible to trade the products. One potential threat for a supplier with a very strong position in the network is if large customers decide to start development and/or production of the purchased goods themselves in order to decrease the dependence on the supplier with too strong a position.

Method

In this paper five different cases will be referred to. The strategy has been to use cases of various kinds from different industries to get a broad view of the phenomenon. The mergers described in the cases can be categorised according to table 1. The table also describes the suppliers discussed in the cases. For detailed information about the cases see Holtström (2003).

The first case is the welding industry case. This case does not only discuss suppliers but also the customer side, it is used to illustrate the effects on connected companies i.e. to highlight the phenomenon. The welding producer case is also used to illustrate the manufacturing industry and suppliers of standard components which in this case seem rather easy to change due to the large number of suppliers available.

The second case is the forest industry case and illustrates a merger within the processing industry and with a strong supplier relationship that could be described as being difficult to change. The third case is the machine & equipment producer and like the welding producer it is a company within the manufacturing industry. However, as described in the case the supplier relationships could be seen as more dominant for the integrating companies, e.g. the relationships are more difficult to change.

The fourth case, the automotive industry, is also a case in the manufacturing sector. The supplier relationships described in the case could be seen as delivering components or parts of components, which are however not changeable until a new product is developed. This makes the relationships between the buyer and supplier long-term. Also pictured are suppliers as key resources for the product development but they are not considered critical for the production. The fifth case illustrates an industry developing advanced and specialised technology. The development costs i.e. R & D are presumably extremely high. The supplier relationships can be said to be strong and unique thanks to long product life cycles.

Case	Type of integration	Type of Supplier
The welding industry case	In the welding industry case there are acquisitions of independent welding companies or parts of large corporations. The character of the acquisitions is horizontal integration.	In this case the suppliers referred to are those delivering raw material.
The forest industry case	Two companies of almost the same size and business merges, which means that the integration can be regarded as a horizontal integration.	The supplier studied has a strong position on the market being one of the few remaining ones within the business. The market is decreasing which may have long-term implications for the supplier.
The machine & equipment industry case	The purpose of the acquisition was to gain production capacity and re-orient production between the two different plants. The acquired company can be seen as a competitor. However, since the firms are working in the same industry with overlapping activities, this case describes a concentric integration.	In this case the suppliers are mid- to large- sized suppliers with a strong position on the market, almost a monopoly situation.
The automotive industry case	A large automotive producer acquires another which makes it deal with a horizontal merger.	Suppliers described in the case are both producing and consultants. In some cases there is a direct contact while other have contact through another level of suppliers.
The defence industry case	The acquisitions described in the case are concentric integration. In the case when the supplier acquires a competitor it is however a horizontal integration.	The supplier described produces a minor part of its production to the combined company. The supplier is delivering already in the prototype phase.

Table 1: Types of merger and suppliers in the cases.

Most data for the empirical cases is from interviews and as a base for the interviews a questionnaire was used. Secondary sources used in these cases mainly concern information about the company, e.g. public information confirming dates of integration or announcements. Also articles from the popular business press have been used as background information as well as a source to confirm sets of data from the interviews.

Discussion of empirical findings

These case findings are summarised in Table 2 with important observations related to the realisation of syngery. The discussion in the next section further develops and discusses the shown observations in Table 2.

Case	Important observations
The welding industry case	• The network of suppliers from the acquired companies together with the acquirer's supplier network made it possible to realise synergies in the purchase of raw materials. • Suppliers of raw materials used in the acquirer's production are exchangeable due to low product complexity and that there is a number of possible suppliers.
The forest industry case	• Synergies is realised in a stepwise process, first with renegotiated supplier agreements foremost for production materials. Later phases may involve production i.e. manufacturing and flows of products. • The concentrations among suppliers have led to an increased dependence on the suppliers. There are fewer alternatives left making it necessary to see some of the suppliers as strategic. • Changes in hierarchical levels in the merging companies have led to changes in the supplier organisation. • Mergers may lead to interruptions of investment decision which might have an affect on the suppliers.
The machine & equipment industry case	• Some suppliers have a very strong position in the network making the dependence high for buyers. This means that a relationship between the integrating companies and a supplier will not necessarily be affected due to an acquisition. • Long-term supplier agreements mean that the realisation of synergies will be possible only after the contracts have expired. • Supplier changes can be complicated due to few available suppliers and also because of customer demands.
The automotive industry case	• Suppliers are not changed during on-going production. It is possible to change with the next generation of products. • Suppliers sometimes experience project interruptions during acquisitions. • A third observation, is that specialisation of the acquired companies product development may mean increased engagements for the acquired company's suppliers.
The defence industry case	• Synergies in concentric mergers are first focused on non-product-related supply and later on product-related supply. • It is difficult to find synergies in product-related supply since the products in the integrating companies differ quite a bit. • Suppliers are difficult to change due to product complexity and long periods for product development.

Table 2: Important observations in the studied cases.

Synergy realisation for whom?

It is relevant from a supplier perspective to question for whom synergies in mergers and acquisitions are meant. Consider the forest industry case with the supplier and the merged company. It is stated in the annual report that the merging companies have reached a certain level of synergy. A large part of these synergies relate to purchasing synergies. In the discussion with the supplier it seems as if the merger has not resulted in anything in terms of volumes sold to the merging companies or in the suppliers' turnover. The supplier in the forest industry case can be considered to be a supplier of critical resources. Compare this with the situation in the welding industry case and the synergies mentioned. The suppliers of raw material were many and the possible cost reductions seem to have been quite large. Some suppliers lost volumes and the prices towards the suppliers were under pressure. This created a situation favourable for procurement, at least for the welding company. The effect that may appear depends on the volumes purchased by the acquirer, how large part of the suppliers' sales and earnings that disappeared and whether it is possible for the suppliers to find other buyers of the products. A positive effect could be described as the business opportunities the suppliers chosen have obtained.

A change in the relationship between the customer and the supplier may make the realisation of synergies more difficult especially in cases where the supplier will be affected. If the supplier has a very strong position on the market, it could mean that an integration among these 'strong' suppliers' customers will not affect the supplier. There might also be no effect at all, not even on the integrating companies. This means that the companies' relative position in the network might play an important role for the possibility to realise synergies.

For a supplier it is probably interesting to analyse the development of mergers and acquisitions and the potential effects this may have on the network. If the simplified picture above is accurate of where to find initial synergies it means that suppliers of product-related supply to companies involved in horizontal mergers need to react to a merger or an acquisition more quickly than suppliers of non-product-related supply. In a case of a concentric merger, suppliers of non-product-related supply will notice changes earlier than suppliers of product-related supply. The meaning of this is not that one type of supplier or the other will elude the effects of mergers and acquisitions depending on the type of integration. It is, though, a question of when in time the effects can be expected or will appear.

Short and long term perspective on synergy realisation

In reviewing the cases the interpretation of time is that the merging companies are interested in finding initial positive synergies of the integration. When the company has realised these initial synergies, there is continued work to find more synergies of the integration. In the forest industry case the second wave synergy is related to the production structure. In the defence industry case the synergies are distributed in another way. These synergies are more connected to non-product-related supply and product-related supply. The actual time equivalent with effects in an early phase and in later phases is difficult to establish. However, in the forest industry case it is shown that early effects will be realised in 6 to 18 months and later effects in 18 months up to 36 months after the integration. In the defence industry case when synergies will be realised it is not as clearly linked to different periods, except that for non-product-related supply a process has started. For the suppliers it is important to be aware of this process since it will have an effect on when in time effects will appear as a consequence of mergers and acquisitions.

In the defence industry case it is said that there is an internal inertia in integrating companies and the process to find and realise synergies may take longer than initially planned. Effects on suppliers may as a consequence of this take some time before they appear i.e. there is initially no effect. The suppliers could possibly perceive this as something positive. In analysing the situation the suppliers need to find out why there are no effects or if the possible effects will appear later.

Effects of investment interruptions in integrating companies

The suppliers feel that the merging companies are reluctant to invest. This is an effect of both short and long-term character. In the forest industry case the supplier experienced a long period of interruption in investment decisions for a certain type of machine equipment. In this case the supplier was affected negatively by the merger. For a company to be able to counter such effects parts of the company must be strong and profitable to face the risk of mergers among customers. How large the effect will be depends on for how much of the suppliers' total sales the integrating companies account.

In the automotive industry case some suppliers to the acquired company experienced an interruption in projects. This has led to increased engagements for the supplier after the internal review in comparison with the situation before the acquisition. This describes an initially negative effect which after some time becomes positive. The supplier finds it likely that the increased engagements depend on an increased focus by the company group on activities within the suppliers' business area.

An interruption in investments may have long lasting effects on the supplier if it takes a long time before new investments are made. In an initial phase the supplier might notice that there is an interruption in investments and that projects are temporarily stopped.

The importance of the length of contracts

In the cases the length of contracts has been an issue for why it is difficult to measure or notice any results of the merger or acquisition made. Some of the supplier agreements are as long as five years, which makes the potential synergies occur at a later moment. In mergers and acquisitions it is often said that synergies will be realised e.g. through re-negotiations with suppliers. Through this a major part of the synergies intended are achieved. It should be noted that in the case with the machine & equipment industry not much has happened in relation to its suppliers due to long-term contracts. The implications of contracts are a bit unclear. Supplier contracts are of significance in the efforts of realising synergies. However, it can be questioned what will happen, since the suppliers in the case have a rather strong position in the network. The suppliers are difficult to change and due to the integration there is an increased dependence of the integrating companies on the supplier.

In other cases the contracts may be of little importance depending on the situation between the buyer and the supplier. The power dependence between the two parties must be considered. For example a supplier with a large part of the sales to one or both of the integrating companies could probably claim the validity of a contract. However, in reality the power dependence may be such that it will be difficult for the supplier not to accept a re-negotiation of agreements. In case of an upcoming procurement there is a risk for the supplier not to be chosen for future deliveries.

The effect of long contract agreements can also be found indirectly e.g. in the automotive industry case and the defence industry case. In the automotive industry case it is stated that a change of supplier normally is not made before a new product is developed. This means that the effects occur only some time after the merger. This can be likened to a long contract. In the defence industry case too the situation is similar. In many cases the supplier is a part of the product development and also participates in service and maintenance.

Restructure of operations

In all the studied cases there are organisational changes within the integrating companies. One effect on suppliers occurs when the customer companies have merged. Certain demands may develop in order to obtain the same terms of agreements for all units all over the world in the merged company. These demands have made it necessary for the supplier to change routines, which have taken one to two years for the supplier to implement.

Another effect experienced by the suppliers is that internal changes in the integrating companies lead to operations being moved outside the integrated company. There is an example of this in the defence industry case. A reorganisation of production equipment in the integrated company from one unit to another led to a situation where units in the integrated company purchase their needs for machine works from external suppliers instead of inside the company. This can be interpreted in two ways; that internal control could be improved or that internal production is not competitive enough compared to the supplier alternatives used. It can also indicate integration problems since the equipment was moved from the acquired company to a unit in the acquirers' organisation. This supports the first statement that the internal control and co-ordination could be improved.

Decision making and centralisation

In these cases there are examples of suppliers who initially did not experience any changes as a consequence of a merger or an acquisition. However, the suppliers notice changes in the integrating companies e.g. changes in management. The suppliers, mainly in the forest, in the automotive and in the defence industry case, notice changes in the combining companies' organisations. In one case the suppliers experience a change in the decision-making process within the integrating companies from a more local process to a centrally controlled. The effect of this has been that the supplier has had to change his internal organisation so that the customer contacts are made also from a central level within the supplier organisation. Contact levels have not been terminated but more relationships have been added. Does this mean that the number of relationships between suppliers and integrating companies increases or decreases in the event of a merger or an acquisition? Regarding the number of companies it is easy to say that there will be fewer relationships in the network. However, when the integrating companies add another level of contacts, maybe this means that the number of relationships are at least as many as before the merger.

The centralisation of functions in a merged company and the necessary changes made by the supplier could mean that there is a shift of important relationships between the customer and the supplier. The effect described by the supplier in the forest industry case is not dramatic. This can probably be related to the low number of sold paper machines per year although the value of each machine is very high. Also in the automotive industry case the decision-making process is changed within the acquired company as a result of the integration. Decisions are made in other parts of the organisation than before the acquisition. In sum we have pointed out some effects on connected companies due to a merger or an acquisition.

Conclusions – Connected Synergy?

As maintained above connected synergies appear outside the merging companies. Using Ansoff's (1965) definition of synergy, connected synergies are in comparison illustrated in

Table 3. Examples of connected synergies are: No change in market shares due to chosen strategy towards customers as a consequence of the acquisition. In this case it means that customers does not change supplier due to the merger. However, it could mean that the customer may yet experience changed conditions in the relationship to the supplier, e.g. increased priced levels. Such a change would also be a connected synergy. Whether the net effect of this connected synergy is positive or negative depends on the relative change the merger causes in the network. With no change in market shares it could indicate that the merged company is more competitive than its competitors and thus it will be able to maintain all its customers.

	Synergy (cf. Ansoff, 1965)	Connected Synergies
Sales	using common distribution channels, sales administration, advertising and/or warehousing	• Changes in market shares due to connected companies' decisions as a consequence of the integration.
Operating	large-lot purchasing, using facilities and personnel more efficient or effective, spreading overhead costs	• The possibility of changing suppliers depends on type of goods or services provided.
Investment	using the same production plants, transfer of R&D from one product to another.	• Merging companies' decision on investment affects connected companies
Management	Different types of industries have different needs of management skills, some industries can complement each other and top management skills are useful, however in some other cases top-management skills can not be transferred, i.e. synergies would be negative	• Companies need to grow as a consequence of mergers and acquisitions. • The type of merger or acquisition determines when and how connected companies will be affected due to the integration.

Table 3: Comparison of synergies and connected synergies. Using Ansoff's (1965) concept adding the view of connected synergies.

The two types of integration illustrated by the empirical cases give rise to differences in the realisation of synergies. These two different types of integration indicate that the integrating companies' focus on where to find synergies is different. Illustrated in the horizontal integration described, product-related supply will be in focus in an early phase of the merger. In concentric mergers it seems as if non-product-related supply will be reviewed in an early phase of the merger. For later phases of the integration a horizontal merger or acquisition may focus on non-product-related supply and concentric mergers on product-related supply. For the suppliers this means that in the various phases of the merging companies integration different types of suppliers will possibly be affected by the merger. In a suppliers' analyse of the merger it is of importance to be aware of what kind of merger the connected company is involved in. This is important for the supplier to know in order to know when in time and if possible synergy realisations by the merging company will affect the supplier.

Another example of connected synergy is that changes in the merging companies' organisation e.g. a centralisation of supplier contacts, have led to a similar change in the supplier organisation in the relationship with its customer. Changes in merging companies' organisations have effects on connected companies' organisations. Merging companies changes the decision-making process which has an effect on the supplier organisation in such a way that contacts with the merging companies also must be made at higher hierarchical levels than prior to the merger. Requirements from a merging company have made it necessary to change routines in the supplier organisation. Changes in the merging company have also led to business opportunities for suppliers. Reorganisation of equipment from one unit to another unit in the merging company have increased purchases from external suppliers formerly produced with the reorganised equipment. It is difficult to make a distinction of connected synergy in sales and operating connected synergy as Ansoff (1965) did with synergy (cf. Table 3). The difficulties depend on the point of departure. According to Ansoff (1965) it is based on the view of the company, whilst connected synergy is viewed from outside the merging companies. The perspective could be *from* a connected company and out or *on* a connected company and in.

Other examples of connected synergies are e.g. that supplier changes are complicated depending on the type of relationship between the buyer and the supplier. This means as discussed earlier that some suppliers could be in a stronger position after the merger than before and vice versa. A connected synergy due to a merger or an acquisition may be low due to the fact that no changes of suppliers during production of developed and specified products or models are usually made. The length of contracts appear as an important variable for the suppliers to be aware of, i.e. when synergies may appear as a consequence of the merger. Time is also important for the suppliers to consider since a merger means that merging companies review their resources and this may have an effect on suppliers e.g. projects and investments may be interrupted for a shorter or longer time. Also a review of integrating companies' resources might lead to project interruption for suppliers with a relation to the integrating companies. The connected synergy in this case means that connected companies experience interruptions in their business as a consequence of the merger. The same will be the case when the merging companies review their resources and this leads to interruption in investment decisions. This connected synergy may initially be of a negative character, however, in a longer term perspective change to a positive connected synergy e.g. through a specialisation of the acquired company's product development which could mean increased engagements for the acquired company's suppliers.

The realisation of synergy depends on type of integration i.e. which connected companies that will be affected and when. Also as stated above there are indications that mergers and acquisitions may initiate other mergers and acquisitions, i.e. connected companies may need to grow due to industry concentration, which could be seen as a connected synergy.

What Ansoff (1965) says in the first three categories (see Table 3) is much focused on the integrating companies. The fourth category – management – is related to the issues discussed above but the interpretation is still that it deals with the acquirer and the acquired. As described by the examples above there are effects 'outside' the integrating companies. These connected synergies appear in connected companies as a consequence of a merger or an acquisition. In Ansoff's (1965) definition of synergies it seems as if there could only be positive synergies. However, Ansoff (1984) also maintains that synergies can be negative. This must also be the case for connected synergies as effects of a merger or an acquisition on connected companies are not necessarily positive, e.g. in cases when merging companies put projects or investments to a standstill. Possibly this will be negative for a supplier.

In merging and acquiring companies' realisation of synergies the type of supplier will have an effect on the combining companies' possibilities to realise synergies in its relationship to their suppliers. This means that the supplier by analysing their relationship to the merging companies should be able to determine how the merger will affect the supplier and also when in time an effect of synergy realisation could be expected. By analysing the event of a merger among connected companies a supplier will be better prepared in meeting the potential effects a merged company intends to realise in its relationship to the supplier.

What is the use of connected synergy that is not already dealt with in the concept of synergy? Synergy, as said above, is of internal character and involves the two merging companies i.e. the new established firm, being one company. As maintained above mergers and acquisitions willl have effect on connected companies and to distinguish synergy from 'effects' on connected companies, connected synergy could be useful. Refering to the introducing example of this paper, connected synergy could be illustrated by the reduction of the number of suppliers leading to fewer options for the customers to chose among. A probably positive synergy for the two integrating companies due to a strengthened dominant position, results in a connected synergy. In this case a negative connected synergy, for the customers, is that they now have fewer alternatives to purchase from and a risk that prices will increase as the competition decreases.

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