

THE EFFECT OF BONDS ON RELATIONSHIP DYNAMICS

Cases from the Truck Producing Industry

Robert Wendelin

Dr.Sc. (Econ.), Senior Researcher in the StratMark project funded partly by Tekes, The Finnish Funding Agency for Technology and Innovation, CERS Center for Relationship Marketing and Service Management, Swedish School of Economics and Business Administration, P. O. Box 479, FIN 00101 Helsinki, Finland,
E-mail: wendelin@hanken.fi
Mobile +358-40-5593044, Fax +358-9-43133287

ABSTRACT

Relationship termination, partial termination of the relationship or continuation of the relationship is relevant outcomes of relationship dynamics. The relationship outcome depends on the strengthening or weakening of bonds or preservation of bonds as status quo. Several reasons for relationship termination are mentioned in this paper, as is a dynamic perspective of bonds. Bond stability, thus bonds tendency to increase or decrease in strength during the relationship is also taken into consideration.

Introduction

The relationship between suppliers and industrial customers has changed so that at present stable relationships between suppliers and customers is a prerequisite for a good business climate. Demand for lower prices and an increase in profits, shorter product cycles and global competition are some of the forces affecting suppliers and customers in the industrial market to have stronger relationships (Holmlund & Kock 1995). For instance in the truck producing industry the companies have begun to decrease the number of suppliers and have instead started more intense cooperation with the remaining suppliers. As a result the bonds between the companies become more important since bonds are part of the components in the cooperation that affect the stability. Bonds affect termination of relationships because they often prevent termination of relationships even if the partners are dissatisfied with the cooperation. (Storbacka, Strandvik & Grönroos 1994, Liljander & Strandvik 1995). It can therefore sometimes be the bonds and not the satisfaction that keep the customer in a relationship.

There can be several reasons for termination of the relationship between a supplier and a customer. One reason could be that the competitors offer a superior alternative to the product supplied by the current supplier. Another reason could be that the supplier does not keep up in the technical development. That could be the case in the truck producing industry if a supplier of springs becomes technically obsolete due to the increased usage of air-suspension that would make springs obsolete (Wendelin 2000b, 2002, 2004). A third reason for relationship termination could be that the environment on the market could change due to for instance some directive from the EU regarding manufacture of products that would affect the supplier's competitive power negatively. It could also have to do with environmental aspects as for instance ISO 14001 audits. (Wendelin 2000b, 2002a) Changes in the environment are factors that cannot be affected by the companies themselves. Alajoutsijärvi & Tähtinen (1997) call these external reasons for termination. These are affected by changes in legislation, changes in currency rates, trade barriers, directives, etc. These changes may also lead to relationship termination.

Changes in the business relationship can also affect relationship termination. The cooperating companies can affect these changes. These changes are for instance technical shortcomings,

critical incidents, security problems and risk, human related issues, changes in price, environmental issues, factory or supplier moves or that better alternatives emerge on the market.

Relationship termination, partial termination of the relationship or continuation of the relationship is relevant outcomes of relationship dynamics. The relationship outcome depends on the strengthening or weakening of bonds or preservation of bonds as status quo. Episodes lead to the weakening and strengthening or preservation of status quo of bonds in the bond dynamics part and the outcome of this is relationship termination, partial termination of the relationship or continuation of the relationship.

I define bonds in the following manner. Bonds are the concrete or abstract technical, time, knowledge, legal, economic, geographical, social, cultural, ideological, psychological and strategic value creating, neutral or value reducing factors that form the building stones of the industrial business relationship. Bonds can be mutually or one-sidedly value creating or value reducing. The sum of the total package of bonds in a relationship equals to the total value of the relationship. Bonds are value reducing if they are causing negative effects in the relationship functioning as exit barriers or if they are weakened and lead to negative effects weakening the relationship.

Bonds do affect the total value of business relationships. Bonds may have been seen as something positive and later on their character may change to something being perceived as negative, they become an exit barrier. Bonds may change character in different situations and what has been seen as positive is later being seen as negative. The nature of the character of bonds is that bonds may be viewed or perceived differently over time.

When viewed from a dynamic perspective the change of bonds in the relationship is viewed, that is when the bonds in a relationship develop and change over time. Bonds are dynamic and change over time. Dynamics refer to the change of bond strength and thus also affect relationship strength since bond strength affect relationship strength. Bonds do not have to remain at status quo but may change in strength so that for instance strong bonds become weak and weak bonds change into strong. Change refers to bonds nature to change in strength. As an example can be mentioned the fact that social relationships, technical relationships or economic relationships may change over time from being seen as positive or neutral to negative and vice versa.

The findings are based on six case studies between a supplier of suspension components to the truck producing industry and six truck producing customers of whom four are regarded to be major players in the business. All cases have confirmed the findings of the study as have the validating case with a major producer of trucks and its cases to suppliers. The most common reasons for relationship termination are mentioned. Interviews have been conducted with personnel from logistics, quality assurance, product development, sales, buyers and other people involved in the cooperation between the companies.

Bonds

There are different kinds of bonds in theory. In the first IMP (International Marketing and Purchasing Group) affiliated papers there were only two bonds present (Håkansson 1982). Later the number of bonds was raised to five (Hammarkvist, Håkansson, & Mattsson 1982). Some years later in 1987 there were six of them (Johanson & Mattsson 1987). These six bonds do however not give a picture that would cover industrial relationships completely.

Additional bonds have been recognized in the past years in service marketing. Bonds such as cultural, ideological, geographical and psychological bonds have been added to the technical, time, knowledge, social, legal, and economic bonds. (Liljander & Strandvik 1995) By combining the bonds that the IMP group has found with those from the service marketing perspective a more complete model have been found. Geographical, cultural, ideological and psychological bonds are also important from an industrial perspective. (Wendelin 2000a, 2000b) Wendelin (2000a, 2000b, 2002a, 2002b, 2004) and Buttle, Ahmad & Aldlaigan (2002) have also noticed these 10 bonds in industrial business relationships. One additional bond, namely strategic bonds have been found to complete the structure with 10 bonds (Wendelin 2004).

Bonds tend to have different names depending on the author. Bonds can be named as such or ties and links. It is however a unitary phenomenon. In this paper I will discuss a dynamic perspective of bonds.

A Dynamic perspective of bonds

When viewed from a dynamic perspective the change of bonds in the relationship is viewed, that is when the bonds in a relationship develop and change over time.

Technical bonds

Technical bonds see e.g. Hammarkvist, Håkansson, Mattson (1982), Johanson & Mattsson (1987), Easton (1989), (Kock 1991) and Erbismann, Kock & Strandvik (1998). Technical bonds start to develop in the early levels of cooperation even before a relationship has developed. Already before a supplier is chosen, the customer sends out drawings of how the part should be manufactured to the suppliers and asks for their opinion on the issue. The supplier then comes back with suggestions on how the part could be improved in order to be a better product and in order to fit better into the supplier's production process. (Wendelin 2002a) At this stage the technical bond has already started to develop. If the supplier then gets chosen then the supplier strive to fit the product into its own production process as good as possible so that the product should be as efficient to manufacture as possible. Technical bonds are unstable bonds. Technical bonds may change frequently in strength during the relationship due to for instance quality problems or increases or decreases in technical development.

The cooperating companies adapt their products and processes to each other in order to save time and money when manufacturing products. Critical incidents are solved and novel systems such as 3-D models and computer systems are utilized in order to make product development and problem solving easier and that strengthens the technical bond.

For instance when the relationship between supplier and customer is developed the supplier may try to improve the product continuously thereby keeping up the fierce competition with all the other potential suppliers that could come to replace it. By having a technically superior product compared to the competition as for instance a tubular stabilizer vis-à-vis a regular full stabilizer that weighs approximately 20 kg more would affect the strength of the bond in a positive manner. In industries with high levels of standardization such as the truck producing industry this is one of the more fragile bonds. This is the fact since there are lots of suppliers manufacturing almost similar products and if the technical bond becomes weak or breaks then the risk is big that the whole relationship will end. (Wendelin 2002a)

Sometimes the product becomes obsolete and then the bond will break and the relationship between the companies will end. This could for instance be the fact regarding springs when more and more trucks start using air suspension and the use of springs decreases heavily. If a supplier has focused all of its production on manufacturing springs and not on manufacturing other suspension products like for instance stabilizers then the whole company could become obsolete on the market and have to file for bankruptcy. (Wendelin 2002a)

Time bonds

Time bonds see e.g. Johanson & Mattsson (1987), Kock (1995), Holmlund & Kock (1995) and Wendelin (2002a). Time bonds are usually almost nonexistent in the beginning of the cooperation. EDI cooperation does not exist between the two companies but is usually set up quickly in order to cope with the daily business. Some problems may develop with the compatibility of different EDI systems that for instance are used for delivery information (that is how many of the products that are required in the customers production and what day the products should arrive). The problem is that there are many different standards. In Scandinavia we use the ODETTE standard while the EDIFACT standard is used in Great Britain and VDA in Germany. Usually the supplier must invest in different systems so that he can be compatible with all of the customers. Over time the time bonds grow stronger when the supplier and customer start to exchange information daily and run information on the same systems. (Wendelin 2002a) Sheth and Sharma (1997) finds that linkages such as for instance EDI will reduce both the suppliers and buyers costs and dramatically shorten cycle times. The reduction of suppliers and buyers costs will also affect the economic bonds in a positive manner.

Bottlenecks decrease the bond strength since it disrupts the flow of production or information process and therefore causes problems with deliveries. By decreasing the lead-time of the products the supplier can deliver products to the customer on shorter notification and that strengthens the time bond between the companies. The use of warehouses strengthens the time bonds between companies since delivering to warehouses makes it easier for the supplier to keep a buffer for unexpected deliveries and it is easier to forecast the forthcoming demand from the buyer. The delivery of products is not the only thing that is important for the customer but it is also important that the supplier and customer are able to exchange information regarding technical development such as CAD (computer aided design) drawings, etc. on-line. By setting up links for this purpose the time bonds strengthen. (Wendelin 2002a) The same topics are followed when it comes to CAM (computer aided manufacturing) as Han, Wilson and Dant (1993) points out.

Time bonds are bonds that are unstable and may change frequently during the relationship. If the lead-times in the production increase then the cooperation could be poorer and the bond could weaken or break. Even though the bond has been broken due to relationship termination the EDI links will remain as residual bonds and can be used in contacts with other suppliers/customers and may be used again the next time cooperation start.

Knowledge bonds

Knowledge bonds see e.g. Kock (1991), Proenca & Castro (1997) and Nonaka (1994). Knowledge bonds can be latent that is to say they can be present before the supplier is contacted for cooperation. In the case with a company supplying the truck producing industry it can be argued that that supplier has knowledge regarding the truck producing industry and

has therefore an advantage over a supplier that has never supplied the truck producing industry before.

If the supplying company is delivering to five other customers in the truck producing industry it is easier to start delivering products to a sixth customer compared to a potential supplier that has never supplied the truck producing industry before. The supplier has an understanding for the truck producing industry since they have been delivering to the industry before. The company has latent knowledge bonds regarding for instance how to handle administration, problems, etc. in the truck producing industry.

Knowledge bonds usually start to develop in the absolute beginning of the relationship. Usually the supplier is invited to take part in the development of the product at an early stage of the production. Then the customer get to know what the supplier is able to do in the relationship and the supplier get to know the requirements that the customer has. (Wendelin 2002a) How early the supplier is allowed to take part in the cooperation regarding development of products affect the knowledge bond. This is a fact since the earlier the supplier is allowed to take part in the cooperation the earlier both counterparts can find out what is possible to do in order to solve problems.

Knowledge bonds may change over time when for instance personnel in cooperating companies change. This is a fact since a change in personnel decreases the total amount of knowledge that the personnel at the supplier or buyer have regarding the counterpart. Decreases regarding the mutual knowledge regarding routines also weaken the knowledge bond. The knowledge bonds are also affected when the number of interfaces in the cooperation increase or decrease. An increase in the number of interfaces weaken the knowledge bonds since it becomes more difficult to get hand of the right people with the correct information and a decrease in interfaces in the cooperation have the opposite effect. The spoken language affects the knowledge bond similarly since language problems make it difficult to exchange knowledge and hence weakens the bond while a similar spoken language makes the exchange of information easier and hence strengthens the bond.

The knowledge bond usually strengthens over time when the two cooperating companies learn more and more about each other. The learning curve is positive. When the relationship is terminated then the knowledge bond weaken over time.

Legal bonds

For legal bonds see e.g. Palmer, Friedland & Singh (1986) and Johanson & Mattsson (1987). Legal bonds do fluctuate in stability during the life span of the relationship. The legal bonds are usually renewed on a yearly basis and sometimes on times on up to three years. The legal agreements usually however have clause's that allow the contract to be renegotiated if the price on raw material on the world market, etc. should change.

The legal bonds may grow stronger if there are requirements for quality or environmental standards as for instance quality standards such as ISO 9001, QS 9000 or the new equivalent TS 16949 that the company can fulfill. The relative weight of the importance of the quality standards is however lower than that of a written contract. Quality standards may be a prerequisite for doing business in some relationships and audits made according to stringent military or civil standards may be a demand by the end customer. An environmental standard as for instance ISO 14001 have become more important due to image reasons, that is how the

end customer perceives the image of the product. The legal bonds may often be weak since cooperation can be built on gentlemen's agreements but even where written specific contracts exist it can be argued that a contract per se cannot stop a relationship from ending if for instance the technical quality of the product is poor.

Economic bonds

For economic bonds see e.g. Johanson & Mattsson (1987) and Kock (1991). Economic bonds are of an unstable nature. For some customers the price on the product is of high importance and if there is a supplier that can supply the product to a lower price taken in to consideration that the products on the market are of a homogenous nature then the bond will break (Wendelin 2002a). Better terms of payment like for instance 90 days net instead of 30 days also affect the economic bonds in a positive way.

The economic bonds may grow stronger during the relationship due to that the cooperation increases and the supplier sells more and more of its products to one single buyer that is the share of products delivered also affects the economic bond. The larger the share of products delivered to one single buyer or the larger the share of products bought from a single supplier the more the economic bond is strengthened. The size of the series delivered also affects bond strength, that is the larger the series the stronger the bonds and vice versa. By selling larger quantities to one single customer the supplier usually gives a lower price to the customer and both parties prosper. This may be due to lower opportunity cost when the series delivered grow and the production flows smoother. Strive for larger series and decreased costs have been the case when several major truck producers have striven to decrease its number of suppliers in the past years and started to use single source suppliers.

The economic bonds may be weak if the profit margins are low and if products are causing bottlenecks and are therefore expensive to produce as well as buy. There is an indirect effect of that what is uneconomical for the buyer becomes uneconomical for the buyer in the long run since the supplier is forced to raise its prices. It becomes expensive for the buyer and then someone that is more profitable to buy from than the current supplier is chosen. High opportunity costs are connected to products or services causing bottlenecks in the production since these products or services would be more profitable to buy from alternative suppliers whose process would be more adapted for the buyer. From the suppliers point of view the fact would be the opposite, that is to only deliver to alternative buyers whose products or service processes does not cause bottlenecks in the production. If the supplier is supplying products at a loss then it might consider terminating the relationship and focusing its capacity on more profitable buyers.

The bond can break easily if the supplier raises the prices or if the customer find a supplier with much lower prices, given that the products are homogenous.

Geographical bonds

For geographical bonds see e.g. Lincoln, Gerlach & Takahashi (1992), Liljander and Strandvik (1995) and Wendelin (2000a). Geographical bonds are connected to how suitably located the supplier is from a customer point of view. The view of how suitably located the supplier is can vary over time in the relationship. Depending on the industry the location of the supplier is of different importance.

How valuable the products are and how much they weigh plays a part of the importance. In the truck producing industry the location of the supplier used to play a bigger importance than it does at present. If the delivery precision is good then the problems due to geographical distance will decrease. With more and more producers using terms as “single Global source” and “single European source” the importance of how far away the supplier is situated play a smaller importance. In the beginning of the relationship the customer look at issues as the supplier lead-time, geographical distance, costs for transportation of the goods, etc. (Wendelin 2002a, 2004)

When the relationship develop and the geographical bond grows stronger then it is usually due to a improvement in lead times in the suppliers production for instance by reducing the lead-time from 22 days to 7 days or from improved modes of transportation. (Wendelin 2002a) Warehouses at the buyer’s plant can also affect the geographical bond positively since they help in bridging the geographical gap that a long distance between buyer and supplier can create. Geographical distance could lead to problems regarding technical cooperation when a large distance combined with distance in time barriers makes cooperation more difficult. Problems with distance regarding technical cooperation or similar issues could be solved by for instance using residential engineers.

If a supplier face problems in the production process as for instance longer lead times or if the transport prices increase heavily then the geographical bond usually becomes weaker and thus affect’s the relationship negatively or breaks.

Social bonds

Social bonds see e.g. Simmel (1906), Small (1915), McCall (1970), Granovetter (1973), Håkansson (1982) and Wilson & Mummalaneni (1986) There may be latent social bonds between the customer and the supplier before the cooperation starts (Järvinen 1997). Social bonds are usually weak or nonexistent when the cooperation starts. These bonds develop over time when people in the companies start to know each other during the cooperation. People that interact with each other often for instance from the selling/buying sides in the company and from logistics, product development and quality assurance tend to have the strongest bonds to each other. (Wendelin 2002a) Conducting business together and learning to know each other also in the spare time strengthen social bonds. These bonds grow stronger through for instance “wining and dining”. Social bonds are hence developed when people interact both professionally as well as in their spare time. Social qualifications are important in order to form social bonds and to cooperate with other people. The more similarities there are between cooperating persons the easier it is for them to get along. Social bonds can also be due to family ties or to common school backgrounds, etc.

The social bonds weaken when people with good social contacts move to another company sometimes taking the customer with them which could lead to that the relationship ends and leads to that all the other bonds with the customer/supplier end. A high turnover of personnel in the cooperating companies hence affect the social bonds negatively weakening the social bonds while a low turnover of personnel affect the social bonds positively strengthening them.

By being committed, attracted to or if one trusts the other counterpart in the cooperation it is possible to for instance complement legal agreements with gentlemen’s agreements and the cooperation becomes smoother.

Before a relationship ends the social bonds between key persons may be inflamed since some negative critical incidents have sometimes taken place with some persons putting the blame on other persons trying to avoid to be blamed themselves (Wendelin 2002a). After the relationship between two companies has ended the social bonds may however still be intact with people from the two organizations still keeping in touch. This may particularly be the case on the buying and selling departments from the two companies, or between personnel where personal relationships have started. Due to these social bonds between the buying and the supplying company the companies may result in that the companies might continue to do business in the future regarding for instance a new model series of trucks.

Cultural bonds

For cultural bonds see e.g. Liljander & Strandvik (1995) and Wendelin (2000a). Cultural bonds are usually stable in the relationship. The language spoken, the religion or other cultural factors such as which country the supplier is situated in are not easily changed. Some of the cultural bonds are latent that means that they exist before the relationship starts and that people have understanding for certain cultures, languages or religions or are biased against them.

Cultural bonds are also affected by the level of similarity regarding the cooperating companies' company cultures, the cultures regarding exchange of information, the manner in which business is conducted and decisions are made, quality audits are made and the level of similarity between the generations of the cooperating personnel. Gaps in generations can for instance lead to a weakening of the cultural bond between the cooperating counterparts.

Cultural bonds can develop during the relationship. Cultural bonds can increase or decrease in strength as the people in the organizations for instance learn to speak other languages, etc. and when biases disappear. The same facts take place when the company cultures are developed in the same direction etc. The bias may on the other hand strengthen when problems occur in the cooperation. The cultural bonds may stay unchanged since cooperation does not usually start with companies from cultures the company is biased towards.

Ideological bonds

For ideological bonds see e.g. Liljander & Strandvik (1995) and Wendelin (2000a). Regarding ideological bonds there are two different ways to look at the development of ideological bonds in the relationship. There are two kinds of ideological bonds, *rigid* and *adaptive* ideological bonds.

Rigid ideological bonds

Ideological bonds that does not increase or decrease in strength during the life span of the relationship can be perceived as rigid ideological bonds. Such bonds are for instance the will to have business with a certain firm because of the nationality of the firm. Some truck producers may have a wish to buy from as many domestic suppliers as possible to be able to sell their truck as a truck with a high domestic content. The patriotism usually stays the same during the life span of the relationship.

Adaptive ideological bonds

Dynamic ideological bonds in relationships usually develop over time all after the requests for environmental awareness grows stronger. Ten years ago there was no demand for water-based paint, low emissions, environmental audits like ISO 14001, etc. in the auto industry. The ideological bonds in that respect was at that time nonexistent. In later years the importance of environmental aspects has grown stronger due to legislation and the demand that customers have. The situation in the truck producing industry is that the real importance of environmental awareness is still low but is forecasted according to major players to have a bigger importance in the future (Wendelin 2000b, 2004)

During the relationship lifecycle the ideological bonds grows stronger when the supplier strive to improve its environmental awareness. This by for instance manufacturing products that are recyclable to a higher grade, using non toxic paints and striving for the ISO 14001 audit by taking care of limiting the waste it produces, etc.

If the relationship ends and most of the bonds are broken then the ideological bonds also disappear.

Psychological bonds

For psychological bonds see e.g. Liljander & Strandvik (1995), (Storbacka, Strandvik & Grönroos 1994) and Wendelin (2000a). Psychological bonds usually stay the same during the whole relationship. Perceived superiority or inferiority of products, processes, systems or services can affect the perceived strength of the psychological bonds. A patented process or a product innovation may affect the perception of the psychological bond positively.

Psychological bonds can for instance be related to that someone prefers buying a piston made in Germany instead of one made in Japan, due to the perceived difference of the image of the product stemming from the country of production. Psychological bonds are usually very weak or very strong they are seldom of medium strength. Individual perceptions of different issues such as brand or quality can be difficult to alter. The brand name or the image of the brand can affect the psychological bond positively strengthening it or vice versa. Also in cases were there have been misfortune with for instance the quality of a product a person that favors that certain brand on the product is more likely to continue buying that brand in the future. The same person may be biased toward another brand of stabilizer even if this brand could be a much better stabilizer. The bias could have to do with brand or country of origin.

It was found that the possibility to use the buyer as reference due to the buyer's brand name or image was considered to be very important.

Reputation is also an issue that can affect the psychological bond. In one of the cases presented the buyer had a perception of the supplier, as a supplier from the deep forests of the far North that had a mystical reputation for being able to solve problems and develop new products and the buyer's perception of the reputation was very positive. Having the possibility to give reference to well known buyers on the world market also strengthened the reputation of the supplier.

Strategic bonds

A strategic bond is generally affected by strategic decisions regarding cooperation, the strategic importance of the buyer or the supplier from an economic and/or technical view, it can also be connected to the strategic importance of the product and development activities. Strategic bonds are a finding of the analysis. Strategic bonds are on a different level than the other bonds mentioned and can contain all the other types of bonds.

Strategic bonds are bonds that emerge when the companies have it in their strategy and make a strategic decision to cooperate. The strategic importance of the supplier or the buyer might be important due to for instance economic, technical, geographical, and psychological or reasons connected to production capacity. The strategy may be when for instance a supplier such as Suspension-Supply keeps a customer such as TeraTruck even if there are problems with the manufacture of that customer's product. This may be due to the effect that having a customer such as TeraTruck in the list of references will have the company's reputation and image and how this will affect potential new buyers and further business. Strategic bonds could be due to the strategic importance of the product that the buyer purchases. This could be the fact when a buyer such as TeraTruck wants to keep the supplier Suspension-Supply on the supplier list due to the strategic importance of that supplier's product to the end product of the buyer. For instance a tubular stabilizer weighing approximately 20 kilos less and increasing the payload or amount of fuel the truck can carry.

Companies could chose strategically to have cooperation with companies whose products are smooth to produce and make strategic decisions to end cooperation with buyers whose products are not as efficient to produce and where the opportunity costs are higher.

Termination due to strategic issues are for instance when the cooperation with a supplier is terminated due to that the buyer has made a strategic decision to decrease its number of suppliers from 10 to 5 suppliers or has started with a strategy of single sourcing. There may not be big differences in price, quality, etc. between the different suppliers and the buyer may for instance use a strict system with ratings and the relationships with slightly lower points are terminated.

Bond stability

Bond stability is marked with ++ for stable bonds, + for bonds of medium stability and 0 for unstable/fragile bonds in table 1 below.

Table 1. Stability of bonds in industrial relationships

Bonds between companies in a dyad	Bond stability
Technical	0
Time	0
Knowledge	+
Legal	+
Economic	0
Geographical	+
Social	+
Cultural	++
Ideological	+
Psychological	++
Strategic	0

The author defines stability of bonds with bonds tendency to increase or decrease in strength during the relationship. The fact that a bond is stable does not mean that the bond is stable in a positive way. Stability in this sense could well mean that the particular bond is extremely weak and continues to be so. Unstable or fragile bonds such as technical, time, economic and strategic bonds are bonds that are the most likely to affect relationship termination if that occurs.

Based on how episodes affect the strengthening and weakening of bonds leading to the termination or continuation of the relationship it is possible to draw the following conclusions. Bonds are usually stronger and more stable if somebody is supplying engine parts or high tech products or products used in difficult modules. There is then less chance that the bonds will be affected negatively by negative critical episodes and lead to termination than if simpler products such as wheels and exhaust pipes are supplied. This has to do with the fact that the buyer in the case with “difficult” products with strong technical bonds would have to redesign the whole module were the product should be used and that would take time and be very expensive.

These different bonds bond tie the customer to the supplier and make it more difficult for the cooperating companies to terminate the relationship and break the existing bonds. This is among other things due to the fact that it would be expensive to build up new relationships with other suppliers or customers. The money and time invested in the relationship would also be lost.

Relationship termination

“All dyads eventually become broken dyads” (Becker & Useem 1942, p. 16). Relationship termination can be defined as “the permanent dismemberment of an existing relationship” (Duck 1982, p. 2).

Relationships can be defined as terminated when “all activity links are broken and no resource ties or actor bonds exist between the companies” (Tähtinen & Halinen-Kaila 1997, p. 560). Another definition of relationship termination by (Tähtinen & Halinen-Kaila 1997, p. 561) is “If at a certain point in time, a relationship can be considered to have ended and the parties have no mutual expectation of its future reactivation, the relationship is dissolved”.

I do not agree fully with the above definitions on relationship termination. Ducks (1982) definition concerns relations in a marriage and the breaking of that marriage, i.e., a divorce. Companies do however not function as marriages even though there might be some resemblance that Tähtinen and Halinen-Kaila (1997) has noticed. There is bigger possibility of companies doing business together again for two companies than for two divorcees getting together again. There may also still exist residual bonds between companies even if the cooperation has ended, bonds such as knowledge and social bonds may still exist and may be reactivated if cooperation starts again at a later time. The later definition by Tähtinen & Halinen-Kaila (1997) is better.

There may also be partial termination of a relationship. The buyer may terminate only a part of the relationship. Some products as for instance springs may be terminated from the buyer’s list of supplies supplied by a certain supplier while the buyer still might continue to buy stabilizers from the same supplier. It may however mean much for the supplier, which may lose a buyer for 20% of its production for instance. The personnel selling springs does not

have any contact with the buyers of springs any more, there is no economic bonds for springs any more, the knowledge bonds regarding springs starts to deteriorate since the supplier does not develop springs together with the buyer any more.

At the same time the relationship regarding stabilizers is however continuing as usual. There are development of stabilizers taking place increasing the technical and knowledge bonds regarding stabilizers etc.

The reasons for relationship termination between a supplier and a customer can be due to many reasons. One reason could be that the competitors offer a superior alternative to the product supplied by the current supplier. Another reason could be that the supplier does not keep up in the technical development. That could be the case in the truck producing industry if a supplier of springs becomes technically obsolete due to the increased usage of air-suspension that would make springs obsolete (Wendelin 2002a). A third reason for relationship termination could be that the environment on the market could change due to for instance some directive from the EU regarding manufacture of products that would affect the supplier's competitive power negatively. It could also have to do with environmental aspects as for instance ISO 14001 audits, etc.

By for instance checking critical incidents between companies that no longer cooperate it could be possible to find out how strong the bonds between the companies have been and how much they have endured before they have been broken.

Figure 1 below describes different reasons for relationship termination.

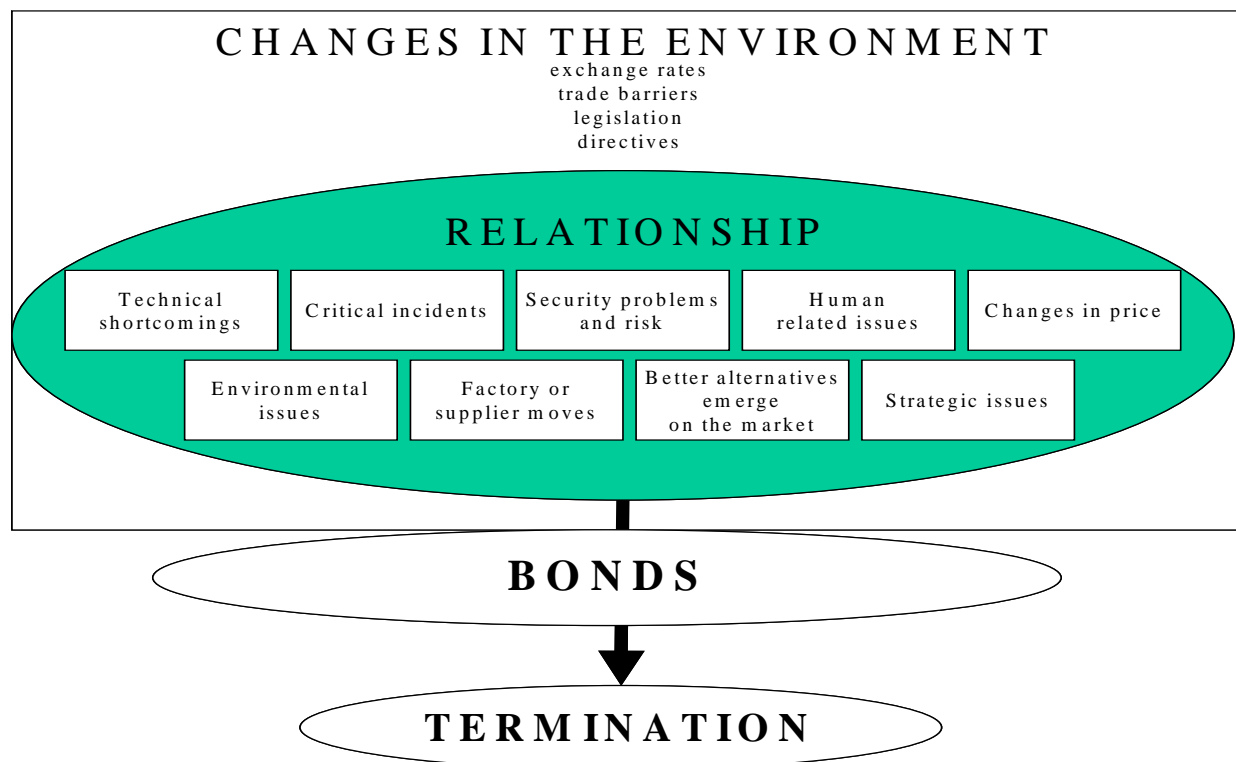


Figure1: Issues that affect relationship termination and bonds that dampen the affect

Figure 1 above should be seen so that changes in the environment are factors that can change regardless of what measures the cooperating companies would take in order to prevent them.

Changes in the business relationship are factors that could be affected by the companies in the relationship. The bonds function as a filter or have a dampening effect on the changes in the relationship. Due to the bonds the problems that arise in the cooperation could be seen as minor and the bonds may prevent relationship termination.

Changes in the environment

Changes in the environment are factors that cannot be affected by the companies themselves. (Alajoutsjärvi & Tähtinen 1997) calls these external reasons for termination. These are affected by changes in legislation, changes in currency rates, trade barriers, directives, etc. These changes may lead to relationship termination.

Changes in legislation and directives

Changes in legislation may affect relationship termination when for instance the suppliers product fail to meet standards that has changed when legislation or directives has changed. If for instance a new directive from The European Union regarding manufacture of products changes the competition to the suppliers disadvantage then the relationship could be terminated. If the suppliers factory has a higher level of pollution compared to the competition and does not fulfill the new directive regarding for instance air pollution then the customer may choose another supplier.

This was the case when CFC (chloro-fluorocarbons) was banned in the Montreal protocol in December 1995. CFC was used as a propellant for aerosols and in systems for air-conditioning in cars to name a few examples. Producers of CFC had to alter their production and find alternative resources when the ban was implemented. (Harrison & Easton 1997)

Changes in exchange rates

Fluctuation of exchange rates or depreciation or revaluation of the exchange rates may lead to problems when for instance the exchange rate in the suppliers home country is reevaluated or when the currency in the customers home country is depreciated. If the value of the currency in the customers home country is decreasing in comparison to the suppliers home country then the price of the products that is bought from the supplier becomes more expensive for the buyer and the buyer may have to find another supplier. One possibility to guard oneself for this kind of changes in the environment could be to hedge against changes in the currency rates.

Changes in trade barriers

Changes in trade barriers may take place when for instance some country become member of a trade association like EU, NAFTA, etc. If the country the customer is located in becomes member of for instance the EU and the country the supplier is located in does not become a member of the same trade association then the products that the customer buys becomes more expensive for the customer. This is because an import duty must be paid for products entering the customs union. In this specific case 5 % more expensive since the import duty in the EU area is 5 %. This can also lead to relationship termination.

Changes in the business relationship

Changes in the business relationship can also affect relationship termination. The cooperating companies can affect these changes. By improving for instance technical quality of the products or by doing things better relationship termination can be avoided.

Technical shortcomings

Technical shortcomings can be problems with the product or production process. There can be technical problems regarding the product. The metal compound in the spring could have a too large amount of hydrogen in it so that the spring brakes easier when used, etc. Problems in the production process could be that the product does not fit into the suppliers production process and is therefore too expensive to manufacture so that the supplier finds it easier to terminate the relationship instead of manufacturing the product at a loss (Wendelin 2002a).

Critical incidents

Critical incidents can for instance be delays that occur in the relationship between the supplier and the customer. Delays due to capacity problems in the production process can take place for instance if the supplier has a large backlog of orders. If the customer's production line is affected by these delays then the relationship can be terminated quite fast, especially if the customer has back up suppliers.

Issues that the customer see as negligence can also lead to trouble in the relationship. If for instance the supplier sends the wrong product-numbers repeatedly or are careless in another way it could lead to problems.

Security problems and risk

Security problems can constitute a problem for the interacting companies. If there are leaks of blueprints of a new product to competitors or if there are some other problems with information leaks, etc. then there will be problems in the cooperation between the companies.

If there are perceived high risk to cooperate with the current partner then there are also problems. Some buyers have a demand that companies should do fire risk analysis before they can have an "A" rating as suppliers. If some supplier has a problem with passing the fire risk analysis then the customer may choose another supplier. This is also the case if the factory is located near to a volcano, nuclear plant or any other object that could be perceived as risky. All risks that could lead to a delay of product deliveries or a total shutdown of deliveries can constitute a perceived risk for the customer. This also concerns risk for bankruptcy if the suppliers have financial problems. (Wendelin 2002a)

Toyota lost a week of production when its proportioning valves supplier Aisin was struck by a factory fire, under which time no cars could be produced until alternative suppliers could be found and adapted to Toyotas speed of production. This shows the vulnerability that a specific investment creates. There is dependence that makes it difficult to disengage as circumstances change. (Bensaou & Anderson 1999)

Human related issues

Human related issues regard how people from the cooperating companies get along in their daily work. Problems that arise can have to do with an infected relation between two employees in the cooperation that can be due to their different personalities. If one or both are

not transferred to other places in the organization then this could result in relationship termination.

Human related problems could also have to do with the fact that the contact person that one has made business with for several years' start to work for a competing company and the customer follow the contact person to the new company.

Changes in price

Changes in the price level can also lead to problems between the cooperating companies. If the supplier increases the price and the customer can buy the product from an alternative supplier then the relationship will probably be terminated (Wendelin 2002a). The same goes if the prices of raw material used for the product increase on the world market forcing the supplier to raise the price of the product, but the customer is not willing to pay more for the product. On the other hand if a supplier have a worldwide technical lead regarding some important components they can raise the price without any consequences (Brennan & Turnbull 1997).

Environmental issues

Environmental issues can also be the reason for relationship termination. If the supplier is having problems with fulfilling environmental standards such as the ISO 14001 standard or equivalent and the customer requires such a standard then the supplier could have problems. Another reason could be if the supplier has problems with pollution. If the supplier pollutes the environment more than the laws allow and have problem with keeping down the level of air and water pollution. Another issue could be products painted with poisonous colors.

Factory or supplier moves

If the customer's factory or the supplier moves then this could result in relationship termination. If the distance between the customer and supplier gets too big then the customer may seek another supplier.

Better alternatives emerge on the market

In the cases when better alternatives emerge on the market it can be better alternatives both regarding products and regarding supplier. In the case regarding product it may be that the product becomes technically obsolete because of new technology in the customer's end product. When the case is trucks then it could be argued that the increasing use of air suspension in trucks would make springs obsolete. A supplier that does not have a product or part that could be used in trucks with air suspension would soon be out of the market (Wendelin 2002a). The second case regarding supplier could be that a supplier with a shorter lead-time, lower prices, etc. evolves on the market.

A lack of alternative partners may keep one of the counterparts in the cooperation even though he may want to terminate the cooperation. (Alajoutsjärvi & Tähtinen 1997)

Strategic issues

Strategic issues are for instance when the cooperation with a supplier is terminated due to that the buyer has made a strategic decision to decrease its number of suppliers from 10 to 5 suppliers or has started with a strategy of single sourcing. There may not be big differences in price, quality, etc. between the different suppliers and the buyer may for instance use a strict system with ratings and the relationships with slightly lower points are terminated.

Conclusion

Several reasons for relationship termination between a supplier and a buyer were found in the study, for instance technical shortcomings, human related issues, changes in price or environmental issues. By knowing reasons for relationship termination it is possible to affect the relationship and strengthen or weaken it.

The author has also built a framework regarding how bonds develop and change in industrial relationships. This could help researchers as well as companies to grasp some of the complexity of bonds and how bonds between companies should be developed and managed. By managing bonds it is possible to strategically strengthen or weaken the bonds between the cooperating companies in order to strengthen the cooperation and tie the customer or supplier to the company or to terminate the relationship. Bonds could for instance be weakened by increasing the product prices regarding economic bonds from the supplier's side or by lowering the prices from the buyer's side. Launching patented concepts that gives the customer advantages at the same time, as it is a new idea could strengthen technical bonds between the companies.

It may indeed be difficult to keep up strong bonds with all counterparts in the cooperation. It usually demands so much of the contact person's time and the company's resources to keep up the intensive cooperation with the "important" buyers or suppliers that some counterparts in the cooperation suffer or are ignored. The company must strategically decide what or which kind of companies it wants to cooperate with and act according to that decision. The decision can be made on monetary profits to be made, is the cooperation profitable for the company, is it good for the reputation to cooperate with the company, good brand, etc., is it good for technical development, logistics development, etceteras.

When the strategic decision has been made then it is time to focus on strengthening the weaker bonds to the preferred companies and on keeping the strong bonds strong through investments and adaptations towards the counterpart in the cooperation. The opposite challenge is in weakening bonds to companies in the cooperation where opportunity costs are high in order to phase out and end the relationships in a good manner.

A method of categorizing different relationships and thus different possible bond importance levels in relationships could be of interest for further research.

References

- Alajoutsjärvi, K., Tähtinen, J. (1997): Beautiful Exit or 50 Ways to Leave Your Partner, *Paper presented at the special mini-IMP Group Conference, Sydney, 13-16. February*
- Becker, H., Useem, R. H. (1942): Sociological Analysis of the Dyad, *American Sociological Review*, Volume 7, Issue 1, February, pp. 13-26
- Bensaou, M., Anderson, E. (1999): Buyer-Supplier Relations in Industrial Markets: When Do Buyers Risk Making Idiosyncratic Investments? *Organization Science*, Vol. 10, No. 4, July-August, pp. 460-481
- Brennan, R., Turnbull, P. W. (1997): Antecedents to Adaptations in Buyer-Seller Relationships, In Mazet, F., Salle, R., Valla, J-P. (eds.) *Interaction, relationships and networks. Conference proceedings from the 13th IMP Annual Conference*, Lyon, September 1997. 61-85
- Duck, S. (1982): *Personal Relationships 4: Dissolving Personal Relationships*, Academic Press, London
- Easton, G. (1989): *Industrial Networks - A Review* 5th IMP Seminar, Penn State, Pennsylvania, 161-182
- Erbismann, K., Kock, S., Strandvik, T. (1998): Cooperation and Adaptations in a Supply Chain – The Suppliers' View, *Paper presented at the 14th IMP Conference*, Turku, 3-5th of September
- Granovetter, M. S. (1973): The Strength of Weak Ties, *American Journal of Sociology* Volume 78. No. 6, May, 1360-1380
- Hammarkvist, K-O., Håkansson, H., Mattson, L-G. (1982): *Marknadsföring för konkurrenskraft*, Malmö, Liber Förlag
- Han, S-L., Wilson, D. T., Dant, S. P. (1993): Buyer-Supplier Relationships Today, *Industrial Marketing Management*, 22, 331-338
- Harrison, D., Easton, G. (1997): Parallel Net Adaptations, In Mazet, F., Salle, R., Valla, J-P. (eds.) *Interaction, relationships and networks. Conference proceedings from the 13th IMP Annual Conference*, Lyon, September 1997. 115-131
- Holmlund, M., Kock, S. (1995): Buyer Perceived Service Quality in Industrial Networks, *Industrial Marketing Management*, March, Volume 24, no. 2, 109-121
- Håkansson, H. (1982): *International Marketing and Purchasing of Industrial Goods*, Chichester, UK, John Wiley & Sons
- Johanson, J., Mattsson, L-G. (1987): Interorganizational Relations in Industrial Systems – A Network Approach Compared with the Transaction Cost Approach, *International Journal of Management Orientation*, 17, 1, 34-48

Järvinen, R. (1997): Interorganisational Bonds in Long-Term Relationships, In Mazet, F., Salle, R., Valla, J-P. (eds.) *Interaction, relationships and networks. Conference proceedings from the 13th IMP Annual Conference*, Lyon, September 1997. 275-295

Kock, S. (1991): *A Strategic Process for Gaining External Resources Through Long-Lasting Relationships-Examples from two Finnish and two Swedish Industrial Firms*, Helsingfors: Doctoral Dissertation no. 47, Publications of the Swedish School of Economics and Business Administration, Helsinki

Kock, S. (1995): *Kontextens betydelse vid utformningen av strategier i industriella nätverk*, in: Vest, T. (ed): *Studia Economica*. Swedish School of Economics and Business Administration

Liljander, V., Strandvik, T. (1995): The Nature of Customer Relationships in Services, *Advances in Service Marketing and Management*, Volume 4, 141-167

Lincoln, J. R., Gerlach, M. L., Takahashi, P. (1992): Keiretsu Networks in the Japanese Economy: A Dyad Analysis of Intercorporate Ties, *American Sociological Review*, Volume 57, Issue 5, October, pp. 561-585

McCall, G. J. (1970): *The Social Organization of Relationships*, in McCall, G.J., McCall, M. M., Denzin, N. K., Suttles, G. D., Kurth, S. B. (Eds.), *Social Relationships*, Aldline Publishing Company, Chicago, 3-34

Nonaka, I. (1994): A Dynamic Theory of Organizational Knowledge Creation, *Organizational Science*, Vol. 5, No. 1, February, 14-37

Palmer, D., Friedland, R., Singh, J. V. (1986): The Ties that Bind: Organizational and Class Bases of Stability in a Corporate Interlock Network, *American Sociological Review*, Volume 51, Issue 6, December, pp. 781-796

Proenca, J., Castro, L. M. (1997): The Complexity of Business Relationships in Banking and Financial Services – A Case Study, In Mazet, F., Salle, R., Valla, J-P. (eds.) *Interaction, relationships and networks. Conference proceedings from the 13th IMP Annual Conference*, Lyon, September 1997. 315-341

Sheth, J. N., Sharma, A. (1997): Supplier Relationships – emerging Issues and Challenges, *Industrial Marketing Management*, 26, 91-100

Simmel, G. (1906): The Sociology of Secrecy and of Secret Societies, *American Journal of Sociology*, Volume 4, Issue 4, January, pp. 441-498

Small, A.W. (1915): The Bonds of Nationality, *American Journal of Sociology*, Volume 20, Issue 5, March, 629-683

Storbacka, K., Strandvik, T., Grönroos, C. (1994): Managing Customer Relationships for Profit-The Dynamics of Relationship Quality, *International Journal of Service Industry Management*, Special Issue on Relationship Marketing

Tähtinen, J., Halinen-Kaila, A. (1997): The Death of Business Triads: The Dissolution Process of a Net of Companies, In Mazet, F., Salle, R., Valla, J-P. (eds.) *Interaction, relationships and networks. Conference proceedings from the 13th IMP Annual Conference*, Lyon, September 1997. 553-590

Wendelin, R. (2000a): Expanding the Framework of Bonds – Cases from the Truck Producing Industry in Pete Naudé & Sheena Leek (eds.), Proceedings of *The 16th Annual IMP Conference*, School of Management University of Bath & Birmingham Business School University of Birmingham, Bath, CD-ROM

Wendelin, R. (2000b): The Effect of Bonds on Relationship Termination, *1st Nordic Workshop on Relationship Dissolution*, Kuusamo 22-24.9.2000.

Wendelin, R. (2002a): *The Effect of Bond on Relationship Termination Cases from the Truck Producing Industry* in Robert Spencer, Jean Francois Pons & Herve Gasiglia (eds.), Proceedings of The 16th Annual IMP Conference, Dijon- Burgundy School of Business, Dijon, France, CD-ROM

Wendelin, R. (2002b): Bond Episodes: A Catalyst of the Weakening and Strengthening of Bonds? – Cases from the Truck Producing Industry, *2nd Nordic Workshop on Relationship Dissolution*, Visby, Sweden, 20-22.9.2002.

Wendelin, R. (2004): *The Nature and Change of Bonds in Industrial Business Relationships*, Doctoral dissertation No. 134, Helsinki, Swedish School of Economics and Business Administration

Wilson, D. T., Mummalaneni, V. (1986): Bonding and Commitment in Buyer-Seller Relationships: a Preliminary Conceptualisation, *Industrial Marketing and Purchasing*, No 3, 44-59