

A FRAMEWORK FOR UNDERSTANDING THE NATURE AND CHANGE OF BONDS IN BUSINESS RELATIONSHIPS – CASES FROM THE TRUCK PRODUCING INDUSTRY

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ABSTRACT

Bonds were found to be important regulators of business relationships in this study. By influencing the bonds one may have possibilities to strengthen or weaken the business relationship. The findings are based on six case studies between a supplier to the truck producing industry and six truck producing customers.

INTRODUCTION

A focus on cooperative industrial business relationships has become increasingly important in studies of industrial relationships. As a result the bonds between the companies become more important. This is due to that bonds are building blocks of relationships that affect the stability in the cooperation between companies. The strength of bonds affects the strength of the total business relationship. Technical, time, knowledge, economic, legal, social, geographical, cultural, ideological, psychological and strategic bonds exist in a business relationship. By breaking up the business relationship and by analyzing and manipulating the bonds it is possible to affect the relationship. If the relationships between companies are strong it is usually a sign that the companies will cooperate for a longer time and that may affect the companies' competitive and financial strength positively (Storbacka, Strandvik and Grönroos 1994). This is the fact since focus can be on cultivating the current relationship instead of building new relationships. Different bonds that exist between the companies affect the relationships. "A bond must exist, in however weak a form when economic exchanges take place between supplier and customer" (Easton & Araujo 1986, p.11). But how is it possible to strengthen and weaken relationships? Which parts of a relationship should managers focus on? Is it always easy to discuss the importance of having strong relationships and the importance of weakening and terminating unprofitable relationships, but which parts of the relationship should be strengthened or weakened in order to get the desired effect on the business relationship?

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 global 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. 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

As a result of the increased importance of cooperative industrial business relationships the bonds between the companies become more important. There are different kinds of bonds that bind the customer and the supplier together. Bonds can be defined as exit barriers that tie the customer to the supplier and maintain the relationship (Liljander & Strandvik 1995). Even

unsatisfied customers may have strong relationships to suppliers due to bonds that function as exit barriers (Liljander & Strandvik 1995). But bonds also have more positive connotations that are important for the continuation of the relationship or for the strengthening of the relationship.

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. Demands for lower prices and an increase in profits, shorter product cycles and global competition is some of the forces affecting suppliers and customers in the industrial market pressing them to have stronger relationships (Holmlund & Kock 1995). Partnering with suppliers has become more important (Araujo, Dubois & Gadde 1999). Companies have decreased the number of suppliers and have instead started more intense cooperation with the remaining suppliers. The strength of bonds affects the strength of the relationship. Bonds affect termination of relationships because they often prevent termination of relationships even if the partners are dissatisfied with the cooperation. That can be seen as a negative perception of bonds. On the other hand it can be said that bonds affect the continuation of the relationship and may also affect the strength of the relationship in a positive way and lead to the strengthening of the relationship, which for instance may lead to increased profitability, or a growth in the volumes delivered (Wendelin 2004). When studying a dyad the relationships between two companies in a network are studied. The relationships between a supplier and a customer in an industrial dyad consist of a vast amount of different interactions and investments in bonds. (Holmlund & Kock 1995)

The IMP (Industrial Marketing and Purchasing) group has found six different kinds of bonds in the cooperation between companies. These bonds are technical, economic, time, legal, social and knowledge bonds. (Johanson & Mattsson 1987; Holmlund & Kock 1995) Additional bonds have been suggested in the past years in service marketing. Bonds such as cultural, ideological, geographical and psychological bonds. (Liljander & Strandvik 1995; Storbacka, Strandvik & Grönroos 1994) By combining the bonds that the IMP group has found with those from the service marketing perspective a more comprehensive model has been created. Geographical, cultural, ideological and psychological bonds have also been found to be important in industrial business relationships. 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 are defined 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.

Technical bonds stem from the characteristics of the products and services that are exchanged. Companies adjust the technical products and processes according to their counterpart's specifications. Time bonds develop when the companies in the relationship adapt their logistic functions to each other. Knowledge bonds develop with time as the cooperating companies learn more about each other's strengths and weaknesses,

opportunities and problems. This happens when companies for instance develop products together. Social bonds develop between personnel from the companies that cooperate in the dyad and not between the companies themselves. Legal bonds are contracts or other articles of involvement or ownership. Quality certifications like ISO 9001, QS 9000, EMAS, and environmental certifications like ISO 14001 or even more stringent military quality certifications than QS 9000 can also be considered as legal bonds between companies. Economic bonds can be special credit arrangements. Mutual investment in the business by the competing firms that is investing in each other's business also constitutes an economic bond. Geographical bonds have to do with how suitably located the supplier is from the buyer's point of view. The view of how suitably located the supplier is can vary over time in the relationship. Cultural bonds develop between suppliers and buyers with a similar cultural background. Ideological bonds are such bonds that make a buyer choose suppliers that for instance manufacture green products, or domestically manufactured products. Psychological bonds develop when for instance the buyer is convinced that the products manufactured by the supplier or a service are of superior quality. Strategic bonds Strategic bonds are bonds that emerge when the companies 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. (Wendelin 2004)

A framework regarding how bonds develop and change in an industrial business relationship has been developed in the empirical study. Episodes as for instance contract negotiations or product development affect the bonds in the relationship strengthening or weakening the bonds in the relationship or preserving status quo. Routine or critical episodes may lead to the strengthening or weakening of bonds as well as the preservation of status quo. The method used for analyzing bond strength trying to grasp the nature and change of bonds was invented by systematically following the elements of the definitions of bonds. A system with tables was drawn up in order to find out if the bond was weak, of medium strength or strong.

CASES

The anonymous supplier of suspension components is named Suspension-Supply and the truck producers also have names that can help to protect their anonymity.

The 1st case involving TeraTruck was a case where a **negative critical episode** caused the **termination** of the relationship and left residual bonds. The TeraTruck case is the only case where a total termination of the relationship has taken place and was needed in order to find out how the bonds changed in cases where there are total termination of the relationship and to find out if residual bonds still remained.

The 2nd case involving GigaTruck is a case where a **negative critical episode** caused the **partial termination** of the relationship and left residual bonds to Suspension-Supply. GigaTruck terminated the relationship regarding parabolic springs that amounted for 20 % of Suspension-Supply's total production when the choice of single source suppliers was made. At the same time GigaTruck chose Suspension-Supply as single source supplier for tubular stabilizers and conventional springs. GigaTruck's new single source supplier SPRING had problems in delivering the amount of parabolic springs that GigaTruck needed so Suspension-Supply had to start acting as a sub-supplier to SPRING for the amount of products, 20 % of the production, that were terminated by GigaTruck. The GigaTruck case is the only big case where a **partial termination** of the relationship has taken place and was

needed in order to find out how the bonds changed in cases where there are partial termination of the relationship and to find out if residual bonds still remained.

The 3rd case involving BigTruck is a case where **negative routine episodes** have take place and the relationship to Suspension-Supply has continued. The BigTruck case is a case were negative routine episode has lead to change in bond strength. The BigTruck case was needed in order to find out how the bonds changed in cases where negative routine episodes take place in the relationship.

The 4th case involving KiloTruck is a case where **positive critical episodes** have lead to a continuation of the relationship and to **strengthening** of the bonds between KiloTruck and Suspension-Supply. The KiloTruck case is a case where a positive episode has lead to change in bond strength, strengthening the bonds between the cooperating companies. The KiloTruck case was needed in order to find out how the bonds changed in cases where positive critical episodes took place in the relationship and the relationship continued.

The 5th case involving SmallTruck is a case where **positive routine episodes** have taken place and the relationship to Suspension-Supply has continued.

The 6th case involving DefenseTruck is a case where **routine episodes** have taken place and the bonds have remained in status quo.

One short last case was used in order to reaffirm the findings from the first six cases involving Suspension-Supply and to test if the conceptual framework created can be accepted. The case involved in this example is a large producer of trucks that is named GreatTruck.

A FRAMEWORK FOR UNDERSTANDING THE NATURE AND CHANGE OF BONDS

A new framework for understanding the nature and change of bonds in business relationships was developed in this paper based on the results of the empirical study. This framework is presented in Figure 1 below.

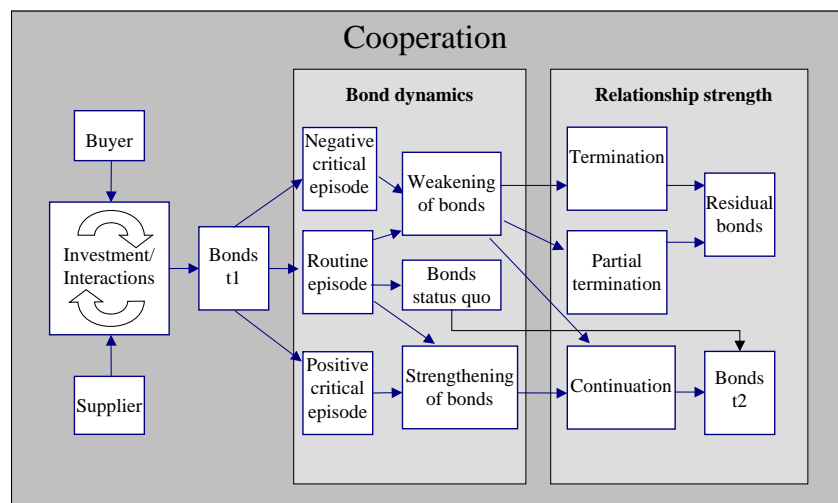


Figure 1. The framework for understanding the nature and change of bonds in industrial business relationships

The first time the cases were analyzed it was done with the help of the theoretical framework searching for different kinds of episodes and bonds in the material. Different types of termination of relationships and partial termination of relationships were also analyzed. With the help of the findings the framework presented in Figure 1 was found and used in the second analysis of the empirical material.

The structure of the analysis was made in the manner that the **cooperation** between a supplier to the truck producing industry and six of its buyers were studied. A validating case for the findings in the first six cases was also focusing on the cooperation between a truck producing buyer and 8 short cases from its supplier relationships. The **bond dynamics**, with three possible episode paths that are negative critical, routine and positive critical episodes and the reasons that resulted in these episodes were analyzed. The weakening and the strengthening of the bonds due to the episodes were also analyzed in the bond dynamics part. Episodes were proven to function as a catalyst for the weakening and strengthening of bonds.

In the **strength** part of the model, an analysis was made if the relationships were terminated or partially terminated or if the relationships continued and what the strength of the bonds were in the case of continuation at a later time (time 2) and if residual bonds were present after termination or partial termination. This was the outcome of the relationship.

Antecedents to bond dynamics as described in figure 1 were ongoing interactions and investments that lead to adaptations made between the counterparts in the cooperation. When viewed from a dynamic perspective the dynamics of bonds in the relationship is viewed, that is when the bonds in a relationship develop and possibly vanish over time. The dynamics of bonds and the weakening and strengthening of bonds was noticed in the analysis of the empirical material and a dynamic perspective of bonds was found.

Bond dynamics is when the change of bonds is viewed, thus seeing bonds change in strength and character over time. That is the reason why bonds at time 1 and time 2 is used in figure 1 in order to illustrate that bonds do change in strength and in character over time hence affecting the outcome of the relationship. The dynamic is thus showed by comparing bonds at time 1 with the same bonds at time 2 or by focusing on the residual bonds that are left after termination or partial termination has occurred.

Negative critical episodes are episodes where a negative critical incident takes place and lead to a weakening of bonds. The negative critical episode should be of such a magnitude that it is remembered and it should affect the relationship through the weakening of bonds.

According to Gidhagen (2001) the critical episodes may have more influence on how the relationship is perceived while routine episodes does not affect the relationship. In this empirical study it was however shown that not only critical but also routine episodes may affect the bonds and thereby the relationship. Routine episodes are small issues that take place in the daily cooperation between the counterparts that will either strengthen or weaken the bonds in the cooperation or not affect the bonds at all. It might be improvements or deterioration that happen slowly just as when water is penetrating a stone. Drop by drop it makes the hole bigger. If we take a business relationship several small mistakes may weaken some bonds be it social, technical etc. as well as several improvements may strengthen them.

Negative routine episodes are an accumulation of negative issues that in the long run lead to a weakening of bonds and a possible weakening or termination of the relationship. Many small routine episodes such as small mistakes happening may weaken some bonds be it social, technical or other bonds in the long run.

Positive routine episodes may be an accumulation of positive issues that in the long run lead to a strengthening of the bonds and a strengthening of the whole relationship. Several improvements may thus strengthen the bonds between the cooperating companies in the long run.

There may also be routine episodes that have a neutral connotation and they do not affect the bonds or the relationship, the bonds remain at status quo.

Positive critical episodes are episodes where a positive critical incident takes place and lead to a strengthening of the bonds. The positive critical episode should be of such a magnitude that it is remembered and it should affect the relationship through the strengthening of bonds.

The difference between critical and routine episodes is that for instance a positive routine episode and positive critical episode differ from each other in the manner that the positive routine episodes require accumulation of positive issues to lead to the strengthening of bonds. This means that several positive routine episodes can in the long run lead to a strengthening of the bonds and a strengthening of the whole relationship. Only one positive critical episode can on the other hand strengthen the bonds and affect the relationship.

Negative routine episodes require accumulation of negative issues to lead to the weakening of bonds. This means that several negative routine episodes can in the long run lead to a weakening of bonds and a possible weakening or termination of the relationship. Only one negative critical episode can on the other hand weaken the bonds and affect the relationship even leading to relationship termination or partial termination.

For a division into routine and critical episodes see Figure 2 below.

	Positive	Negative	
Routine episodes	Strengthens bonds	Routine Bonds remain at status quo	Weakens bonds
Critical episodes	Strengthens bonds		Weakens bonds

Figure 2. Routine and critical episodes

The weakening and strengthening of bonds due to episodes was analyzed in the bond dynamics part of figure 1.

Routine episodes can also have a neutral connotation and then they do not affect the bonds or the relationship, the bonds remain in status quo. That means that the bonds remain at status quo in Figure 1.

The method used for analyzing bond strength trying to grasp the nature and change of bonds was invented by systematically following the elements of the theoretical definitions on 11 different bonds. The findings of each case were analyzed and structured in the manner that one bond at a time was analyzed. In order to find out if the bond was weak, of medium strength or strong a system with tables was drawn up. The elements of the definitions were put into tables. An element of a definition could be for instance delivery precision as an element of time bonds. Parts of the element of delivery precision could be lead times, line stops or the size of the production series.

By systematically categorizing the bonds in order to see which elements of the definition that existed in the cooperation and how the elements were perceived it was possible to find out how strong the bonds had been and how the bonds had changed in strength during the relationship. This was possible to make at a low level of abstraction.

The relative weight of the plusses and minuses in the tables for the total affect on the bond strength are connected to the importance of the issues.

The strength of bonds and the possibility to measure the strength of bonds was one of the contributions of the empirical study. The facts regarding the bonds as well as the perceptions affected the bond strength. Easton (1992 p. 10) argued that “the strength of a bond is a difficult parameter to measure”.

In the **strength** part of model in figure 1 it was analyzed what the outcomes of the relationships were. Had the relationships been terminated or partially terminated or did they continue as before? Did residual bonds remain in the cases where termination or partial termination had taken place and if so what types of residual bonds? What types of bonds were the bonds in time 2 in the case of continuation of the relationships? Relationship strength was considered to be zero after relationship termination occurred.

It was found that the most common reasons for relationship termination was due to reasons connected to the technical, time, economic and strategic bonds. Technical reasons for termination was seen as one of the most important issues and was regarded to be for instance due to quality problems. Time bonds and weakening of the time bonds due to poor delivery precision was another important reason for relationship termination as was economic issues such as the price or strategic issues such as changes in for instance purchase strategies or changes in product strategies.

Alajoutsijärvi, Möller & Tähtinen (2000) argue that there may be partial withdrawal from relationships with buyers that have been seen as less profitable. One could also argue that partial termination could also be made in order to phase out a product line that a competing supplier for instance can manufacture more efficiently, that is cheaper or with better technical features. It was found that partial termination also could be due to strategic reasons when for instance choices of single source suppliers were made.

When continuation is showed in Figure 1 it is the continuation of the relationship after the strengthening of bonds or possibly the weakening of bonds and it is the antecedents of bonds at time 2 in Figure 1.

Residual bonds were found to exist in the analyzed companies. Technological, knowledge as well as social bonds and what Havila (2000) calls administrative routines and what is equivalent to time bonds are found to remain after the trading has stopped in the cases were termination and partial termination took place. Additional findings of the study suggested that geographical and economic residual bonds existed as well.

Timeframes with time 1 and time 2 etc. were timeframes marked in tables in order to be able to see how the bonds had changed between the timeframes t1 and t2 as seen in Figure 1. If the bonds remained unchanged no timeframes were mentioned.

Easton and Araujo (1986) argued that the length of a relationship does not affect bond strength since bonds go through different phases during the relationship. Their perspective has however been developed by presenting a solution where it is possible to focus on the change of bonds that has been presented in this paper. The process depicted in the framework is dynamic.

One of the contributions of this empirical study is that bonds have been divided into a static and a dynamic perspective on bonds. The conclusion of developing the concept of bonds with a static and a dynamic perspective by using systematic combining that has allowed the researcher to go back and forth between analysis and theory. The dynamics of bonds have been noticed as well as weakening and strengthening of bonds in the analysis of the empirical material and a dynamic perspective of bonds was found. The division of bonds into a static and dynamic perspective is a new view of bonds. When viewed from a static perspective the bond is viewed, as it would be temporary frozen in time. When viewed from a dynamic perspective the dynamics of bonds in the relationship are viewed, that is when bonds in a relationship develop and change over time.

CONCLUSION

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. 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.

Bonds were found to be important regulators of business relationships. By influencing the bonds one may have possibilities to strengthen or weaken the business relationship. Strengthen the business relationship in order to increase business and revenue and weaken the

relationship in order to terminate business where the revenue is low or where there may be other problems in the relationship. By measuring the strength of different bonds it can be possible to strengthen weak bonds in order to strengthen the business relationship.

One of the findings is that bond management can be used to affect the cooperation. Bond management is when bonds between cooperating firms are managed in order to strengthen or weaken the cooperation. By using bond management 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. The instrument for the management of bonds is to use the created bond audit in order to know which bonds, thus parts of the relationship resources should be focused on in order to increase or decrease their strength. Allocating too much resources on a part of the relationship that is of little or no importance to the customer means that the company is losing money on allocating resources on the wrong issues. Resources should be focused on important parts of the relationship, thus strengthening bonds that are important.

It may indeed be difficult to keep up strong bonds with all counterparts in the cooperation. 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 it good for the reputation to cooperate with the company, and is it good for technical development, logistics development, and 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.

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