

# MANAGING BUYER-SUPPLIER RELATIONSHIPS IN A SUPPLY NETWORK - THE BUYER'S PERSPECTIVE

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## **Abstract**

This study analyses how a large buyer is managing its supplier network. A focus on core competence during the 90's have forced companies to create long-term relationships with other companies in order to get access to external resources. Within supply networks the trend has been to reduce the number of suppliers in direct long-term contact with the buyer. The suppliers at the first tier are regarded as strategically important as they provide resources matching the buyer's core competence.

## **INTRODUCTION**

There has been an increasing focus on the changes that have occurred during the last decades in the relationships between buyers and suppliers. In an era of increasing global competition there is a growing interest in managing long-term buyer-supplier relationships as the management of these relationships has benefits for both parties. The buyer can strengthen his international competitiveness and secure the access to external resources that the company needs. The supplier can reach higher profits by maintaining long-term relationships (Kalwani and Narayandas, 1995). Generally, buyers and suppliers stress the importance of close relationships, where it is possible to achieve benefits in the form of lowered costs or improved profits (Ford, 1984).

Companies seem to realise more and more the importance of the supply side of their business (Gadde and Snehota, 2000). The purchasing function of the company accounts for a large part of the companies' total costs (Gadde and Håkansson 1993). There is a growing demand for lowering the costs at the same time as the quality should remain at the same level or even improve. Managers are trying to find new alternative paths within purchasing to lower the costs and one way of doing this is by reducing the number of suppliers, which are in direct contact with the buying company. The total number of suppliers can, however, remain the same as these suppliers can form systems of suppliers. The main reason for the reduction of the number of suppliers has been that the company can increase their possibilities to work closely with some suppliers (Gadde and Håkansson, 1993).

### **Purpose**

The purpose of this study is to analyse how the large multinational buyer manages its supplier network, which consists of 750 suppliers. This supply network is studied from the buyer's perspective.

## **SUPPLY NETWORKS**

Major changes have occurred in the context and structure of supply networks. Earlier, the buyer's opinion was that "freedom from dependence" was the optimal solution for effective purchasing. The buyer was free to choose from a range of different sources, mostly choosing the supplier providing the lowest price. (Gadde and Håkansson, 1993:165-166) Today companies are trying to move towards more collaborative relationships (Araujo, Dubois and Gadde, 1999) and even towards longer-term strategic partnerships (Bensaou, 1999). The buyer needs to take several strategic decisions concerning, for example, which resources to have internal access to and which resources to gain through external access. According to Blenker and Christensen (1995) large companies are also beginning to realize the benefits of narrowing down their own competencies. These companies have started to seek access to other companies' competencies, which support their own internal core skills.

Companies operate in an environment, which includes identifiable actors (Håkansson and Snehota, 1989). A buying company has relationships to several other actors in a business network. The buyer should thus be regarded only as one part in a larger context. The company is dependent on other companies' resources (Johanson and Mattson, 1987) and the performance in one relationship is dependent on the performance in another relationship as well (Håkansson and Snehota, 1995). In order to determine the nature of the buyer-supplier relationship one has to take into account the product and technology of both companies (Ford, 1980).

### **Managing the supply base**

A buyer in a supply network is dependent upon the different resources that a supplier can provide. The purchasing function of a company has to be viewed as a link to the suppliers' production facilities. This link has to be created and developed depending on the buying company's own technology. One important decision a buying company has to take is to decide what to make and what to buy. (Gadde and Håkansson, 1993) A buyer should consider how to structure its supply network in the most efficient way.

A company can structure its supply network in two different ways. One way is according to how the suppliers can be organised, and the other is according to the number of suppliers. (Gadde and Håkansson, 1993) A buyer can organise the suppliers into systems of suppliers,

with suppliers on different tiers depending on their activities and resources. Cox (1996) name this network sourcing. One of the goals with systems of suppliers is that the number of suppliers, which are in direct contact with the buyer, is reduced. However, the total number of suppliers does not necessarily need to be reduced when a buyer decides to organize its supplier base into a supply network. There are several advantages that can be reached by reducing the number of suppliers a buyer is in direct contact with. Dyer and Ouchi (1993) state that by reducing the number of suppliers in direct contact, costs can be lowered at the same time as quality improves. The size of the suppliers' companies is diminishing by every tier (Sako 1992). The suppliers fit differently in the supply network depending on their size, competencies and resources, and according to Gadde and Håkansson (1993) depending on their knowledge and activities.

Dyer and Ouchi (1993) discuss the importance of geographical closeness and direct contact between the buyer and its suppliers. In our empirical study the respondents mentioned that they rather had local suppliers in the first tier. Their opinion were that the regular contact between them and the suppliers was easier to manage. The common language was mentioned as one of the factors that the respondents found as a benefit. The benefits of close buyer-supplier relationships can be achieved for both parties, by making adaptations (Ford, 1984). These adaptations emerge and can increase as a result of decisions of different importance taken over a period of time (Brennan and Turnbull, 1999).

Another decision that the buyer has to make is about the number of suppliers that the company should have. This issue concerns the total number of suppliers as well as how the sourcing function is structured. There is a strong trend in many companies towards reducing the total numbers of suppliers as well as concentrating more on developing the relationships with the remaining ones (Harland, 1996). During the last decades multiple sourcing has been replaced by other forms of purchasing strategies (Gadde and Håkansson, 1993), which increases the importance of supply relationships (Harland, 1996). Today companies are moving towards single or dual sourcing (Harland, 1996). A reason for choosing single over dual sourcing can depend on the small volume of the purchased goods. Dual sourcing might be chosen when the volume is large. The choice between single or dual sourcing might thus depend more on volume than the degree of trust between the supplier and the buyer. (Sako, 1992) Richardson (1993:340) describes parallel sourcing as the hybrid form of sole and multiple sourcing, and states that parallel sourcing "involves the use of multiple sole sources for each type of components". Using parallel sourcing the company can receive reduced costs in terms of coordination of quality control and JIT production as well as communication (Richardson, 1993). According to Richardson (1993) parallel sourcing is dominating over multiple sourcing. One benefit, according to Dyer and Ouchi (1993) of having fewer suppliers is the positive effect on quality. Variation increases and reliability decreases when more suppliers are used for one component.

## **Keeping core competence**

It is important for a buyer to decide which competencies to keep in-house and which to outsource. According to Harland (1996) a company can outsource non-core activities, to be able to focus more on the core competence. A company should also consider what it could gain, for example, through cooperation with other companies as well as through partnerships. One of the benefits with cooperation is that each company can contribute with each own core competence (Bengtsson and Kock, 1999). Purchasing partnerships can be viewed as an important competitive tool. Companies might choose to develop partnerships after they have reduced the supplier base. (Ellram, 1991)

The buyer has to analyse the structure of its supply base and also where the different suppliers fit in the supply network. According to Nishiguchi (1994) the suppliers can be evaluated and graded, and depending on the performance the suppliers fit on different tiers. This is also depending on the size of the companies, as well as competence and activities (Gadde and Håkansson, 1993). Suppliers on the first tier are close to the buyer and these suppliers communicate most frequently with the buyer compared to suppliers on other tiers. The suppliers on first tier deal with suppliers on lower tiers. (Lamming 1996)

Every buying firm has its own set of demands on its suppliers. A system of suppliers can be structured as following. The company in the first tier is responsible for product development, systems undertakings and JIT delivery. Second tier suppliers are more specialized into a narrower field of expertise. They work with, for example, processing and/or production and have a narrower range of products. Suppliers, which are less sophisticated in terms of activities and competence can be found on the third tier. At the fourth tier one can find very small companies. Sometimes a fifth tier supplier might even exist. (Gadde and Håkansson, 1993)

## **METHODOLOGY**

The empirical material in this paper is based on personal interviews with respondents representing a large multinational buyer. These personal interviews are part of a large-scale study, which also will include a mail survey. This large buyer operates in a supply network consisting of about 750 supplier companies within the metal industry. These small and medium sized companies are located in Finland as well as abroad.

During the winter and spring of 2000 four personal interviews were conducted with respondents representing the large multinational buyer. These respondents were all in different key positions representing the procurement and technology department. They all have continuous contact with the local as well as the foreign suppliers. A semi-structured interview guide was used which allowed the interviewer to make relevant follow-up questions as well as to ask more specific questions of the different respondents in key positions at the buyer company. The questions that were asked were about the background of the respondents, general overview of purchasing at the buying company, as well as more specific questions concerning buyer-supplier relationships, R&D, purchasing, cooperation, production and management of the supply base. There were also some questions based on the findings of the pilot study. The personal interviews lasted 1,5-2 hours. All of the interviews were recorded and transcribed and additional information was added through e-mail. The interviews with respondents of the buying company continue during May 2000.

The project started with a pilot study, which included small and medium-sized companies in Ostrobothnia, Finland. The small and medium-sized companies are all suppliers to the same large multinational company. The number of companies, which were included in the pilot study were 17 and they are located within an area of one hundred kilometres from the buyer. The topics that were discussed during the interviews can be divided into following categories: background information of the company and the respondent, identification of key actors within the broader network, history, present situation and future of the focal relationship, and adaptations within the focal relationship. Each interview lasted about one and a half-hour and they were all recorded at the same time as notes were taken. A few of the interviews were conducted during the fall of 1998 while the majority was conducted during the spring of 1999. Findings from the pilot study are also included in this paper to enable comparisons of the relationships between the suppliers and the buyer.

## **EMPIRICAL STUDY**

The large multinational buyer is operating in the metal industry. The company has about 750 suppliers, some located close to the buyer, some located within the national borders and some located abroad. Today, one of the main strategic goals is to reduce the number of suppliers. The buyer is trying to achieve this by developing the existing systems of suppliers, with suppliers on different tiers. This would mean that the buyer has regular contact with fewer suppliers, which are those on the first tier. These suppliers then deal with the suppliers on lower tiers and the first-tier suppliers are finally responsible for delivering a whole system to the buyer. Though one of the main strategic goals is to reduce the number of suppliers the number is still somewhat increasing.

Another strategic goal of the buyer is to continuously reduce the total costs, at the same time as the quality should remain at the same level or even improve. Having a smaller amount of suppliers has positive effect on the quality of the buyer's products (Dyer and Ouchi 1993). The buyer does not formally require an approved quality system of its suppliers, but it wishes that every supplier at least have some kind of own quality system. The buyer has also a ranking system of its suppliers, where the performance is measured in terms of delivery reliability and quality. A supplier can deliver directly to the buyer without any additional quality checks if the supplier has the best possible grades, on the contrary, a supplier can also be excluded on the basis of low ranking (Nischiguchi, 1994).

Previously, the buyer was using multiple sourcing but is now mainly using dual sourcing. The benefits of using dual sourcing are that it functions as a supply security system. When having two main suppliers for each key component, the buyer can always purchase the needed component from either of the suppliers. Usually one supplier stands for about 70% of the total purchases of certain components, and the second supplier stands for the remaining 30%. This could, however, change according to the suppliers' performance. The suppliers can use the buyers purchasing agreements for their production.

The buyer's supply base also includes sleeping relationships with some suppliers. These relationships might be non-active because of the different reasons. One reason might be that the supplied part is not needed when the buyer starts to develop a new product and the old product is not produced. If the old product is being produced again, then the sleeping relationship might become active. Another reason for making a relationship active is if the buyer finds new ways of using the supplier's technology, or if the supplier can renew or change the technology.

The large and powerful buyer manages its supply network by adapting in certain ways. Though the buyer is stronger in many ways there are several situations where there is a need for mutual adaptation. This adaptation takes place, for example, in negotiating situations. The adaptation is also found in almost every agreement that the buyer does with its suppliers. The technology might also be adapted. If the outcome still is the same the buyer approves to changed ways in terms of technical solutions. In the pilot study the suppliers adapted mainly within logistical functions, followed by technical adaptations (Hagberg-Andersson, Kock & Åhman, 1999). According to the buyer the suppliers adapt mainly in terms of the product and the delivery times.

According to the findings in the pilot study the suppliers are very dependent on the buyer. As much as 94% of the suppliers stated that they could not sell their products directly to another buyer because of the adaptations that had been made (Hagberg-Andersson, Kock & Åhman, 1999). A supplier's dependence increases if the company serves only one or a small number of buyers, each of them representing a large share of the sales (Holmlund and Kock, 1997). The buyer is stronger than the suppliers but the respondents stated that they wished that the suppliers could become less dependent of the buyer. This could be achieved if the suppliers had more other customers to rely on. The buyer has stated that it prefers having local suppliers for those products where it is possible. The benefits are closeness, geographically as well as culturally. Many of the Finnish suppliers are very competitive, but the small size is often regarded as a drawback by the buyer. The findings show, that very few local suppliers today have the resources needed to become suppliers on first tier.

## **CONCLUSIONS**

Today one of the buyer's main strategic goals is to try to reduce the number of supplier that the buyer is dealing directly with. This can be achieved by forming systems of suppliers, with suppliers in different tiers. Another strategic goal is to reduce the costs for purchasing which accounts for a large amount of a company's total costs.

It is also of great interest to analyse the local and national suppliers role in this supply network. To become a supplier on first tier the company has to be large enough, and also be able to provide some added value to the buyer. The buyer has stated that it prefers having local suppliers for those products where it is possible. The benefits are closeness, geographically as well as culturally, but there are also benefits for the local society. Many of the Finnish suppliers are very competitive, but the small size is often regarded as a drawback. The findings show, however, that very few local suppliers today have the resources needed to become suppliers on first tier. Further, findings show that the buyer is strong and often dominates the supplier. Especially the local suppliers are very small and dependent on the buyer. The buyer wishes, however, that the suppliers should become less dependent, which could be achieved if the suppliers had more customers. A majority of the suppliers stated that the buyer was the stronger part in the relationship (Hagberg-Andersson, Kock & Åhman, 1999). This was also the opinion of the respondents of the buyer.

The buyer in the study is a multinational company with a strong power position in the supply network. In the earlier pilot study (Hagberg-Andersson, Kock & Åhman, 1999) this was clearly visible as many of the companies delivered more than 50% of their turnover to the same buyer. Consequently they are obliged to follow the demands stated by the buyer in many ways. Suppliers which are not supplying important resources will not be regarded as

strategically important and will therefore be delegated to the second, third or even fourth tier. The buyer in the studied case has a clear policy that dual sourcing should be used in order to decrease dependency. Usually two suppliers are used, one supplying 70% and the other 30%. The suppliers are also demanded to make adaptations according to the needs of the buyer. The buyer adapts in minor ways. The adaptations are according to the suppliers in the pilot study especially found within logistical functions, followed by technical adaptations (Hagberg-Andersson, Kock & Åhman, 1999). According to the buyer the suppliers adapt mainly in terms of the product and delivery times. The suppliers are not demanded to have an official quality certificate but they, of course, must adapt to the quality standard required by the buyer.

For a company to become a supplier on the first tier it is required to have access to a critical mass of resources that are of importance to the buyer, i.e. a complement to the buyer's core competence. The supplier must further be willing to invest in joint R&D and make adaptations in order to correspond to the buyer's systems. Most local suppliers are not large enough to become suppliers at the first tier though they fulfill certain other requirements of importance. Following international trends the suppliers at the first tier are growing bigger and more global to match the buyers.

The buyer's core competence is to supply a complete product on which customers worldwide can totally rely on. One of the main aspects of the buyer's core competence is the technology development. The buyer is continuously trying to improve the existing products and develop new ones. This can be achieved through close R&D cooperation or even partnerships with key suppliers. By managing its supply network the buyer can focus on its core competence and rely on the suppliers to provide resources that match and add value to the buyer's core competence.

### **Further research**

In the large-scale study additional personal interviews will be conducted with respondents representing the large buyer. After these interviews a mail questionnaire will be sent out to all 750 suppliers of the large multinational buyer. In this mail survey the relationship between the buyer and the suppliers is studied. Areas of interest are background information of the company, as well as history, present situation and future of the focal relationship, adaptations, power-dependence, and cooperation within R&D.

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