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THE VARIOUS FORM OF PURCHASING IN THE PARTNERSHIP STRATEGIES

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Abstract

This article describes the different partnership strategies in the purchasing The paper compares the different customer-supplier relationships from the point of view of purchasing and deals with virtual companies in particular. Also, the contribution traces the architecture of the virtual organisations and analyses their advantages and disadvantages. The world of practice reveals that through the course of time, and in dependency upon the concrete demands, different partnership strategies evolve in logistics networks. These may be classified accordingly. We will examine the consequences, which appear gradually, upon the length and intensity of the cooperation among companies in a logistics network and derive some plausible future scenarios. For the duration and intensity of cooperation within a logistics network, there are various strategies of partnership. The present contribution focuses upon four strategies in particular, namely, the 'traditional' customer–supplier relationship, supply management, supply chain management, and virtual organizations.

Keywords: virtual companies, supply chain management, traditional customer–supplier relationship.

1. Introduction

In the 1970s there was a heavy demand for all sorts of goods, so a company could be regarded lucky if its needs were met by suppliers. As users, companies got in principle what the supplier had as available. Manufacturers had the same problems in purchasing, and the alternative was whether to buy components from a co-distributor or delegate the manufacturing process to an outside co-producer. But this situation changed sometime in the middle of the 1970s.

The horizontal integration of the supply chains is achieved through the physical amalgamation of complementary product flows. The vertical integration of the supply chains is achieved through the logical treatment of individual supply chains as independent processes.

According to this situation we can find several different partnership strategies. *Fig. 1* orders these.

The collaboration between a supplier and a customer has many forms. The following comparison examines the solutions of the point of view of purchasing. We can discern two forms of purchasing:

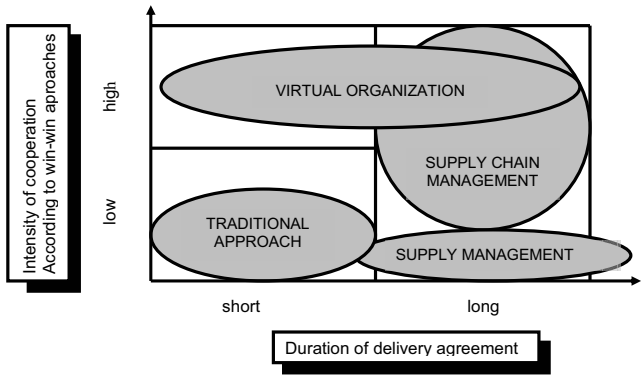

Fig. 1. The ordering of various strategies of cooperation in a logistics network

1. The purchasing of row materials for own component manufacturing.
2. Purchasing of semi-finished or finished goods for own assembly plant.

We can differentiate four kinds of manufacturing:

a. traditional,
b. component manufacturing synchronously with assembly,
c. component manufacturing and purchasing synchronously with assembly,
d. purchasing synchronously with assembly without own manufacturing.

Type 1. of purchasing is characteristic of a. and b.
Type 1. and 2. are together characteristic of c.
Only type 2. is characteristic of d.

The advantages of Just in Time purchasing by the customer:

- decreasing storing costs,
- the area requirement can be decreased,
- decreasing labour input,
- increasing productivity,
- decreasing term of production,
- building up confidence with the supplier.

The disadvantages of Just in Time purchasing by the customer:

- the state of dependence can develop,
- increasing delivery costs,
- increasing control costs and other expenses.

The advantages of Just in Time purchasing by the supplier:

- sure ordering,

- predictable trade.

The disadvantages of Just in Time purchasing by the customer:

- increasing storing costs,
- the state of dependence can develop
- permanent pressure for performance

As regards the punctuality of the terms of delivery there Are four possible definitions:

- punctual to minute. The supplier is next to the customer;
- punctual to hour. The supplier is within easy reach of the customer;
- punctual to day. Delivery from a logistics centre or by train;
- several days: road and railway forwarding.

In most cases the JIT purchasing can be realised by a logistics service provider. The storing remains but it will be done by a professional logistics service company, which is probably cheaper. This situation is shown in *Fig. 2*.

Fig. 2. An example for JIT

An other method for solution is the railway delivery, because goods trains are running to time (for example TERFF, ICF, TEF, ETCE express-trains). But industrial railway is a precondition and only certain wares can be transported by train.

The JIT principle functions only in case of finished products, at the beginning of the logistics network, but it is not valid with raw materials. The main reasons are the following:

- the self life of raw materials is generally greater than that of finished goods since, being in a more basic form, they are less prone to deterioration;
- raw materials can generally be stored in a cheaper and more simple way than finished goods as they tend to be held in a more compact form;
- raw materials generally have a lower obsolescence cost than finished goods as they tend to have a wider range of potential applications;
- stock cover for raw materials can generally be lower than that for finished goods as they can normally be secured more quickly.

2. The Various Partnership Strategies in the Logistics Networks

Three different partnership strategies will now be presented in detail with a special regard to the purchasing.

2.1. Traditional Customer-Supplier Relationship

This are the strategies between the producer as a customer and its suppliers, as outlined in *Table 1*.

Table 1. Strategies of the traditional customer-supplier relationship

Quality:
The supplier is responsible for the meeting the customers specifications. The customer is responsible for the acceptance and must check the meeting of the Specifications.
Cost:
The customer chooses a supplier, where quality is sufficient, primarily according to the lowest prices, following the law of supply and demand.
Delivery:
The customer awards a contract stating desired product, quantity and delivery due date. Safety stock is necessary in order to avoid the problems caused by delivery delays.
Flexibility:
The customer aims for multiple sourcing through finding new suppliers. If the transaction costs become too high, a make-decision is made.
The relationship between the companies in a logistic network:
Starting from row materials and standardized parts, it is the customer who develops all products and processes in the logistics network. The customer delegates the manufacturing of semi-finished goods or parts of the manufacturing process to suppliers. The customer controls the quality of first deliveries.

The price and quality arguments, or productivity in narrow sense, determine supply and demand. Customer–supplier relationships of this type show low intensity in terms of entrepreneurial cooperation. In principle, the duration of the relationship is indefinite, but in fact is calculated to be short-term: the supplier network is flexible, and any relationship may be replaced by another.

The ‘traditional’ *customer–supplier relationship* is defined by the law of supply and demand. Suppliers are chosen on the basis of low prices. Cost reductions are achieved as suppliers play off against each other.

This strategy has the following risks:

- reduced quality,

- longer delivery times,
- poor delivery reliability.

And in fact, these risks were increasingly felt in the early 1980s. Simple consumer goods were not stockpiled and thus ready for delivery, but they were produced only upon order, so a new strategy was required.

2.2. Supply and Supply Chain Management (SCM)

A traditional way of coping with the uncertainties of quality variation, the supplier unreliability and the customer unpredictability have been to build inventory. This is now regarded as costly and inflexible – many companies had both high stock and frequent stockouts, i.e. the wrong stock was accumulated and no benefits accrued to the customer.

The concept of the supply management is originated from the term of 'just in time' concept, from the 1980s. This type of cooperation with suppliers demands extensive preparation. For this reason, such long-term relationships cannot be established and maintained with many partners.

The definition of *Supply management* is: a strategic and long-term reduction of the number of suppliers is to achieve fast and easy operational order servicing. The choice of a supplier is made in view of total costs, i.e., under consideration of all opportunity costs.

The supply management, in short-term order servicing, leads to the elimination or reduction of friction loss caused by order negotiations. With this, many of the advantages of the company-internal production for fast throughput time can be retained.

Customer–supplier relationships of this type show, however, low intensity in terms of entrepreneurial cooperation. The relationships have to be checked again and again with regard to their validity. The following particular risks may result in:

- wrong choices when reducing the number of suppliers;
- changes in crucial conditions on the part of suppliers; and
- unexpected shift to a sellers' market.

The aim of SCM is reducing the time for product innovation demands intensification of entrepreneurial cooperation with co-producers. This will be true for all levels of the logistics network, thus the term 'supply chain' management. The reduced time for product innovation is often linked with unpredictable demand. To avoid stockouts or obsolete inventory, short lead times are important features. This is only possible through intensive cooperation of all the companies involved in the value-adding chain.

This type of cooperation gives co-producers insight into the participating companies. One absolute prerequisite is the long-term formation of trust. The entrepreneurial cooperation thus becomes intensive. The above strategies result in the following definition:

The Supply chain management is the coordination of strategic and long-term cooperation among co-producers in the total logistics network for the development and elaboration of products, both in production and procurement as well as in product and process innovation. Each co-producer is active within its own area of core competence. The choice of co-producer is made with chief importance according to its potential towards realization of short lead times.

The tasks of SCM are the following:

- reduction of total expenditure of the supply chain by using effective marketing, production and distribution strategies;
- reduction of the response tome to fluctuations of customer demands and other changes;
- approach of the shortest term between producing and sale for the last consumer/customer;
- exploitation of the competitive advantage arising from the effective supply chain in case of introducing new products and services.

Table 2 hows the strategies of SCM.

Table 2. Strategies of supply chain management

Quality:
Each co-producer feels responsible for the satisfaction of the end user. Quality requirements are developed and improved mutually.
Cost:
All advantages of supply management are maintained. This leads generally to lower transaction costs. The sharing of methods and know-how among co-producers reduces costs. Each co-producer is active in its area of core competence. This yields the best possible return from the resources implemented (including time).
Delivery:
The same logistics are necessary for all co-producers. Planning and control systems are linked. The choice of the co-producer depends mainly upon speed, that is, the co-producer's contribution to short lead times.
Flexibility:
All co-producers give impetus towards product development. Once again, the buyers' market guarantees that the approach be robust: transaction costs are low, and replacement suppliers may be arranged relatively easily.
Entrepreneurial cooperation in the logistics network:
All co-producers are involved in product and process development from the start. All co-producers are involved in planning and control. 1

In short-term order servicing the supply chain management results in the elimination or reduction of friction loss that otherwise results from procurement

negotiations. In principle, the advantages of a profit-oriented organization are carried over to independent companies.

On the other hand, profit-oriented organizations can significantly improve, through the simple application of supply chain management, the efficiency of their internal logistics networks. The decisive factor will be the degree of entrepreneurial thinking and action.

This type of close relationship also carries the possibility of *risks* such as:

- Abuse of the knowledge gained from cooperation with co-producers in order to enter business relationships with their competitors;
- Investiture by co-producers which — due to short time cooperation periods — is not profitable.

3. Virtual Companies

The concept of virtuality aims at utilizing the advantages of supply chain management as soon as the customer defines its individual needs. In order to fulfill those needs, several co-producers – or departments of a company – must join. To the customer, they stand as a single company, but later they will separate again. These same departments may then join other companies to form new virtual organizations.

The strength of virtual organizations lies in their ability to form quickly. In the world of practice, co-producers must already be familiar with each other.

Table 3 gives an overview of the strategies.

The globalisation, and parallel to it, business integration greatly deteriorated the competitiveness of small and medium enterprises. These firms are more and more subjects of increasing the international competition while they generally operate in limited geographical areas. In the competition caused by only the firm with suitable integration can have prospects.

The virtual company is a cooperation for a limited period between numerous independent firms for performing certain services or manufacturing products, that is to say, they cooperate temporarily in order to achieve their common business goals. Similarly to a big firm, it can overcome the complete lifecycle of a service or product, then after the accomplishment of the order it will disintegrate [6].

As far as the enterprise efficiency criteria, a company's flexibility is particularly important here. In addition, in order to form virtual organizations rapidly, the company boundaries of the potential co-producers in the network must already be open. In this way, entrepreneurial cooperation can be very intensive. Again, as an absolute prerequisite, trust must develop long-term. As a general principle, competition within the network is usually ruled out.

The above strategies result in the following definition:

A *Virtual organization* is a short-term form of cooperation among legally independent co-producers in a logistics network of potential business partners for the development and manufacturing of a product. This is true for procurement and production, as well as for product and process innovation. Co-producers fulfil the

Table 3. Strategies of virtual companies

Quality:
Each co-company carries extensive responsibility for end-user satisfaction. Action guidelines, structures and processes of the virtual organization are developed mutually, as the basic network of potential partners.
Cost:
All advantages of supply chain management are maintained. This leads to lowest costs.
Delivery:
The logistics network for a specific order is formed rapidly. The same operational producers, documents, etc. are prerequisites. Identical information systems allow a maximal exchange of information during mutual product development and production.
Flexibility:
Criteria for the choice of a co-enterprise are 1) its flexibility to enter as a partner into a logistics network 2) its innovative power, that is, its flexibility in creating customer Value and 3) the extent of shared value orientations.
Entrepreneurial cooperation in the logistics network:
All potential partners form a long-term network. One has the role of a broker, in order to put together the virtual organization according to a common demand. All co-producers supply product and process development planning and control from the start. They share mutual involvement this is their responsibility for success or failure.

service on the basis of mutual values and act towards the third party as a single organization. Each co-producer is active within the area of its core competence. The choice of co-producer depends upon the co-producer's innovative power and its flexibility to act as a partner in the logistics network.

With Internet developments it is becoming possible for many related processes to be efficiently controlled and coordinated across many different sites. This is illustrated in *Fig. 3*.

It boils down to this the main characteristics of virtual companies are the following [2]:

- maximise flexibility and adaptability to environmental changes,
- development of a pool of competencies and resources,
- reaching a critical size to be in accordance with market constraints,
- optimisation of global supply chain.

The structures of virtual companies are highly dynamic. Their life cycle can be very short generally. Nevertheless, reactivity and flexibility, which are the major benefits of virtual companies, are a source of problems to solve. To sell a product, or service, a well-known trademark is sometimes essential. To become famous, a trademark needs large amounts of publicity over a long time. In the case of a short

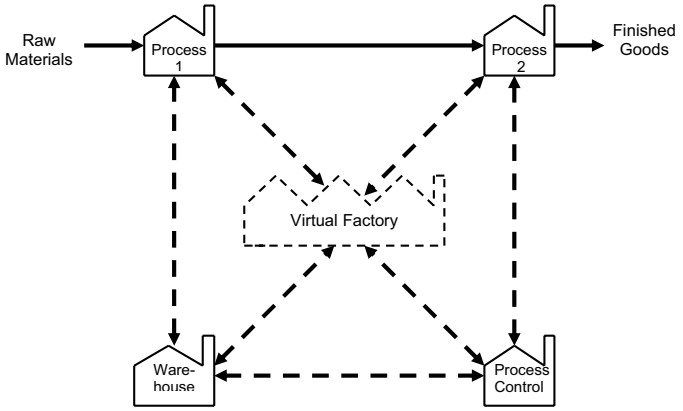

Fig. 3. Production resources are controlled centrally but located in a distributed manner

term project history or background are not to give to the customer. The hierarchy and leadership problem will appear. Other similar problems will concern responsibility and long-term maintenance guarantee that must be given to the customer.

4. Conclusion

In traditional production systems the various production resources tend to be held on a single site or on a small number of different sites. The advantage of this is that information about them can easily be obtained, and this allows for such systems to be better controlled and better coordinated.

The close physical proximity of various production resources also has distinct logistics advantages very often since it limits the need to transfer work in progress from site to site. However, there are many instances when such organisation is disadvantageous from the logistics point of view and can result in production sub-processes having poor utilisation and low efficiencies due to their small scale.

The rate at which conventional logistics operation can grow is constrained by the slow pace at which logistics resources can be acquired and made productive. With virtual logistics operations, however, additional resources can be accessed at very low cost and potentially, this allows for organisations to grow at a very fast rate.

The applications of virtual cooperations for small and medium sized enterprises is also a possibility. This is a good solution that they become a supplier of a big customer. But they have slim chance of playing role in the global market.

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