ABSTRACT

Although it is generally recognized as a key issue, the centralization - decentralization debate is somewhat neglected in the industrial marketing and purchasing literature. This article tries to close this gap. First, the concept of coordination is developed as it is covered in the literature. The arguments in favor of and against centralization will be weighed. Next, the decision criteria are summarized and grouped into categories (part 3). The types of coordination are described (part 4) and different ways of organizing will be discussed (part 5). Finally, managerial (part 6) and research (part 7) implications for both purchasing and industrial marketing are drawn. Some European case-observations, based on exploratory research, are integrated to demonstrate the strategic value of coordination.

1 INTRODUCTION

It may appear strange that a concept like centralization/coordination of purchasing has received only limited attention in the industrial marketing as well as in the
purchasing literature. Conceptual as well as empirical articles are extremely scarce.

In the industrial marketing literature, the following aspects were mentioned.

Most industrial marketing handbooks refer to the importance of the centralization - decentralization issue but they only spend one or two pages on the topic. For instance, Reeder et al. (1991) regard the growing tendency toward centralization of purchasing as a trend of equal importance as MRP and JIT. Like Hutt and Speh (1992), they argue that centralized purchasing (a) increases the buying firm's buying power and its supplier options and (b) leads to changes in buying criteria (more long term, more specialized, less open to influencers outside the buying center). Mahin (1991) puts forward that "where a customer buys is an important issue that affects a vendor's selling strategies" (p.130). He describes the consequences for buyer - seller relations of centralization (e.g. account sales strategy, team selling, etc.). Mahin also stipulates conditions favouring centralized purchasing by referring to Corey (1983): commonality of requirements, cost-saving potential, oligopolistic supply environment, when little interaction between supplier and customer is required. The latter has given the most thorough treatment on the subject so far.

According to the IMP Group (Ford, ed., 1990), the "centralization of purchasing" is one of the important interaction variables at the company level. According to the IMP-researchers, "the extent of centralization in the buying department is a key variable" (p.272), although their discussion of the concept remains superficial.

Woodside and Samuel (1981) and Bellizzi and Belonax (1982) offer some of the scarce articles on the subject. The former discussed a real-life coordination project in a multinational electronics company. Results prove that a coordinated committee program can produce significant savings in purchasing. The authors made useful recommendations for making the centralized approach more professional.
The purchasing literature is slightly more explicit on the centralization/coordination issue.

Some quantification of the phenomenon has been explored by Fearon (1988). The author distinguishes between three types of organization: centralized, decentralized and a mixed structure. On average, one fourth of US-manufacturing companies in his sample and about a third of the service firms have a centralized purchasing organization. The majority of the reviewed companies possess a mixed organization structure. Figures, however, differ according to the size of the company, the larger ones (> 5 bio sales volume) using less a centralized approach to purchasing than the smaller ones. Larger companies will more often adopt the more complex mixed organizational structures (74% as apposed to 59% for small companies). These figures vary only slightly from the ones stated by Fraunfelter (1981) earlier.

As far as the qualitative aspects are concerned, most textbooks focus on both the organization of purchasing in multiplant companies and on the arguments supporting or negating the usefulness of centralized purchasing. Most authors consider a mixed structure to be the best solution, although the exact mix is unique to each company and varies according to the different product groups bought. (Fearon et al. 1993; Heinritz et al. 1991; Lee et al. 1990; Pinkerton 1986; Bernardin 1981; Scheuing 1990). Although some problems will be faced when introducing a mixed purchasing approach, such as a lack of standardization, the absence of common coding systems, local rationality and disbelief about the workability of the system by suppliers (Fraunfelter, 1981), most authors agree on the strategic value of coordinated buying. For Leenders and Blenkhorn (1988) it is a prerequisite for cost-effective partnering with suppliers for new products (p.27). It may also be a prerequisite for global sourcing: "The strategic evaluation team evaluates suppliers on the basis of ... and decides who will get what portion of the business on the global market" (Dobler et al. 1990, p.109).

Overall, there are conflicting opinions about the tendency of centralization vs. decentralization. Gadde and Hakansson
(1994), on the one hand, report a shift towards the decentralization of purchasing activities away from centralized purchasing departments. The main reasons are (a) the need for having problem solving capabilities close to where the problems occur, (b) the importance of cost containment in each profit center, and (c) the importance of close relationships with the suppliers.

On the other hand, Paliwoda and Bonaccorsi (1994), describe the "centralization of purchasing activities at the divisional level" as one of the key purchasing trends in the European Aircraft industry. A committee is said to consolidate requirements from different sites and general agreements are negotiated. Sites operate under this "umbrella". Pinkerton (1986) agrees: "If the purchasing function is to significantly improve supplier quality, source internationally, develop an overall supplier base, ... then clearly the decision favors centralization or consolidation" (p.254).

Also Stevens (1995) considers integration and coordination of procurement requirements across worldwide business units as one of the major characteristics of a global sourcing strategy.

In today's environment, two conflicting pressures can be identified. Standardisation and efficiency pressures are pushing towards greater centralization. Customization and responsiveness pressures push towards greater decentralization. Eventually, different types of coordination might be the resulting mid-range positions.

2 THE CONCEPT OF COORDINATION

Centralization refers to keeping all the decision making power in one place. Decentralization refers to the dispersion of power down the hierarchy of authority (Mintzberg 1979).

Both approaches are at the ends of a continuum. Bartlett and Ghoshal (1995) describe how European multinationals' administrative heritage led to a decentralized federation approach, whereas the Japanese developed a centralized hub
Purchasing Coordination in Multiplant Companies

approach with tight central control. U.S. companies are said to use a coordinated federation form of organization mainly through knowledge flows.

Coordination is a mixed approach which tries to combine the advantages of both extremes. It requires a subtle approach which implies a great deal of centralization, socialization and formalization, and an integrated network (Bartlett and Ghoshal, 1995). Figure 1 summarizes the arguments in favor of both extremes.

Figure 1 Arguments in favour of Decentralized and Centralized Purchasing

<table>
<thead>
<tr>
<th>ARGUMENTS IN FAVOUR OF DECENTRALIZATION</th>
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<tbody>
<tr>
<td>1. Local management, responsible for all costs, including purchasing, might become frustrated if they would lose control over such an important cost item.</td>
</tr>
<tr>
<td>2. Close cooperation between local buyers and users. Good fit with local requirements.</td>
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<tr>
<td>3. Choice of local suppliers:</td>
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<tr>
<td>- better and faster service;</td>
</tr>
<tr>
<td>- shorter delivery times;</td>
</tr>
<tr>
<td>- sometimes better terms;</td>
</tr>
<tr>
<td>- goodwill to local community.</td>
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<tr>
<td>4. Local buyers more motivated.</td>
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</tbody>
</table>
Figure 1 Arguments in favour of Decentralized and Centralized Purchasing

<table>
<thead>
<tr>
<th>ARGUMENTS IN FAVOUR OF CENTRALIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stronger negotiating position versus suppliers, hence better prices and terms.</td>
</tr>
<tr>
<td>2. Construction of a group purchasing and procurement strategy. Uniformity leads to economies of scale.</td>
</tr>
<tr>
<td>3. Acquisition of better, more profound knowledge of the market. Establishment of a global supply view.</td>
</tr>
<tr>
<td>4. Efficient use of available purchasing skills.</td>
</tr>
<tr>
<td>5. Less administrative work and reduction of purchasing organization expenses.</td>
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In our interviews¹ most of those aspects were frequently mentioned by the respondents, who mainly stressed the advantages from a “local rationality” point of view.

HQ people pinpointed above all stronger negotiation positions and uniform purchasing strategies as arguments favouring a centralized approach to purchasing. Local buyers stressed closeness to the users in their plants and keeping of control over an important cost item most frequently.

This discussion clearly leads to the conclusion that each of the advantages of one system is a disadvantage of the other one. Many companies, therefore, try to combine the advantages of both systems via a coordinated approach. This implies the combination of a central strategy of standardization and market power with local flexibility and entrepreneurship.

Lee et al. (1990) think it is essential to carefully divide purchasing responsibilities between head office and local units (p. 102). In many cases, the more reflective purchasing activities
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might be assigned to head office, while the more action-oriented tasks will remain the exclusive responsibility of local buyers.

As in all centralization/decentralization debates, management should make the rationale behind the coordination explicit. Leenders and Blenkhorn (1988) state the important rule of thumb that as many tasks as possible must be carried out as close as possible to the end user of the purchased goods and services (p. 29-30). Based on the elaboration by Pinkerton (1986, p. 253) and on our personal interviews with both corporate and local purchasing managers in about 15 multinational companies, we were able to list a workable subdivision of tasks, as shown in Table 1 (see next page).

If we divide purchasing activities along the lines of a conventional management pattern, it is the first management steps (research, setting objectives, and starting external market activities) that purchasing coordination performs, while the subsequent phases of purchasing management (internal market activities and purchase) come under the responsibility of local purchasing managers. Coordination implies a kind of a consultative model: local buyers will be advised. Coordination also implies open communication in both directions.

Figure 2. tries to display this involvement of both purchasing coordinators and local purchasing managers in the different stages of the buying process. One should, however, bear in mind that the upper and lower part of the Figure are linked to one another. "Counselling" as an activity refers to the advisory role which both decision making centres can and will play in the stages where the other centre plays the decisive role. As such, the lower part is a mirror view of the upper part in the Figure.

1 see appendix for an overview of the exploratory study
**Figure 2:** Involvement of Purchasing Coordination and Local Purchasing Managers in the different stages of the buying process.

<table>
<thead>
<tr>
<th>DE-</th>
<th>SETTING OBJECTIVES AND STRATEGY</th>
<th>MARKET ACTIVITIES</th>
<th>PURCHASING EXECUTION</th>
<th>INSPECTION AND FEEDBACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>DECISION</td>
<td>CENTRAL PURCHASING OFFICE</td>
<td></td>
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<tr>
<td>MAKING</td>
<td></td>
<td>LOCAL PURCHASING</td>
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<tr>
<td>COUNSELING</td>
<td></td>
<td>CENTRAL PURCHASING OFFICE</td>
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<td></td>
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<td>LOCAL PURCHASING</td>
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</tbody>
</table>
Table 1  Allocation of purchasing tasks

<table>
<thead>
<tr>
<th>Maximum tasks of centralized purchasing</th>
<th>Minimal tasks of local purchasing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Setting objectives and strategies to be followed by the group in purchasing and procurement. (*)</td>
<td>1 Studying local requirements and drawing up local consumption schedules, including those for services, maintenance, operational activities, etc. (*)</td>
</tr>
<tr>
<td>2 Carrying out purchasing market research.</td>
<td>2 Making sure that the purchasing and negotiating strategies drawn up by the coordinating office are adhered to.</td>
</tr>
<tr>
<td>3 Drawing up purchasing plans and budgets.</td>
<td>3 Listing local requirements in framework contracts entered into by the purchasing coordination function. (*)</td>
</tr>
<tr>
<td>4 Drawing up specifications and determining instructions for incoming inspection and quality analysis, in order to enable all units to follow uniform production methods and adopt a uniform purchasing approach. (*)</td>
<td>4 Negotiating all purchases of products for which there are no coordinated agreements within the group. These are not necessarily confined to small and rush orders, but also include all purchases for which a centralized approach does not provide all affiliates with substantial advantages. (*)</td>
</tr>
<tr>
<td>5 Setting standards for procurement policy. (*)</td>
<td>5 Organising materials acceptance, quality control, inventory control, and the logistic arrangements for purchases. (*)</td>
</tr>
<tr>
<td>6 Negotiating and signing major annual contracts, in which local companies can list their requirements, particularly for strategic materials (will come back to this in detail later). (*)</td>
<td>6 Looking after local sales administration and documentation within the group’s auditing standards.</td>
</tr>
<tr>
<td>7 Counselling local purchasing managers on supplier selection and rules of reciprocity and counter-trade.</td>
<td></td>
</tr>
<tr>
<td>8 Counselling local purchasing groups on purchasing organisation and administration (with or without computers).</td>
<td></td>
</tr>
<tr>
<td>9 Setting up rules for (and sometimes carrying out) purchasing audit and control.</td>
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</table>

(*) A vast majority of the respondents (about 2/3 of them) mentioned this point.
3 SELECTION CRITERIA

Within this general framework (figure 2), the principal activity is the identification of the purchasing packages for which a negotiation through a coordinated approach is worthwhile.

Corey (1978), Lee et al. (1990, p.104-106) and Fearon et al. (1993, p.58) all list a number of criteria which can be of importance.

We subdivide them in three categories:

(a) market-related criteria, (b) company-related criteria and (c) product-related criteria (table 2)

Table 2: Selection criteria for the selection of a purchasing approach

<table>
<thead>
<tr>
<th>a.</th>
<th>market related criteria</th>
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<tbody>
<tr>
<td>1)</td>
<td>savings potential by pooling volume</td>
</tr>
<tr>
<td>2)</td>
<td>structure of the supply market (e.g., when faced with monopolistic or oligopolistic supply side, coordination seems obvious)</td>
</tr>
<tr>
<td>3)</td>
<td>regulation/deregulation of the market (e.g. local buy pressures, subsidies, European regulation, etc.)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>b.</th>
<th>company related factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>the degree of commonality between the purchasing packages of the different production units</td>
</tr>
<tr>
<td>2)</td>
<td>the extent of the local affiliate's responsibility for profits</td>
</tr>
<tr>
<td>3)</td>
<td>local purchasing volume</td>
</tr>
<tr>
<td>4)</td>
<td>geographical distance</td>
</tr>
<tr>
<td>5)</td>
<td>availability of genuine purchasing experts</td>
</tr>
</tbody>
</table>
(c) product related criteria

1) the acceptance of standardization by the local users;
2) the ordering and usage pattern (e.g. small volumes and irregular orders lead to decentralization);
3) the involvement of technicians and engineers in the user company (the greater, the more advisable a decentralized approach). This is often the case with customized products.
4) limitations in logistics and transportation (which often leads to a regional coordination with regional warehouses, but no complete centralization).

Although we did not specifically ask our respondents for corroboration of the above mentioned selection criteria, most of them stated that coordination is not a clear-cut issue.

"Different types of products require different solutions when coordination is involved", one of them stated. Overall, our respondents rated the chances of developing a coordinated approach for different types of products as follows.

For raw materials our respondents preferred (about 4/5 of them) that the purchasing coordinator first performed extensive research casting light as a matter of priority on the price sensitivity and cost structures of the market. Then coordinated negotiations are very often organized. Most (2/3), respondents say that standardized packaging items and components follow the same rule. Non-standardized equivalents will be bought locally in separate purchases, unless the basic contract can cover a number of the differences by including extra cost factors in its calculations. Capital goods will preferably be handled by local buyers, with the exception of smaller equipment and a number of market standard-related investments (PCs, software, etc.). Specifications often vary, with the demand for later deliveries maintenance and service being substantial and related to the local distribution network, while the financing agreements (make, buy or lease) are often related to specific local circumstances. Maintenance goods and MRO items also
follow this rule, although in this field catalogue agreements or systems contracts between one unit or group of units and their local dealers are often possible. "These agreements should be related to the different patterns of use in the different units", about half of our respondents stated. Moreover such systems contracts enable quick deliveries from local dealers which is an extra advantage when buying these low unit price items.

We believe that these stated differences can be explained, building a typology based on two dichotomies: (a) standard versus non-standard products and production (b) goods versus non production goods.

The relevance of the distinction between standard and non standard items has been commented by Fearon et al. (1993, p.58). Standard goods can more easily be combined in negotiation packages. Consequently, they are the first target for purchasing coordination (Corey, 1978, p.109). Framework contracts are very often negotiated centrally, whereas orders are placed locally (Fearon, 1993, p.69). This would explain the tendencies observed for raw materials and standardized components (e.g. coordinated negotiations). MRO-items are also standardized items, but the differences in usage patterns between different units pose a strong enough counterbalance to coordination efforts of the same kind as for raw materials.

The difference between production goods and non production goods is also seems very important. Non-production goods are materials which are used during production and become part of the end product. Examples are raw materials, components, packaging, etc.

Production goods, on the other hand, are used during the production process but cannot be found directly in the end product (e.g., capital goods, research equipment, maintenance and repair products, and a substantial number of services). The basic difference between these two types of products lies in our opinion in the frequency of occurrence of purchasing decisions. Non-production goods are purchased regularly and must be
delivered every time from stock, or supplied by the supplier in just-in-time systems (when scheduling is easy).

The purchasing of a great number of production goods on the other hand is mostly a one-off job. It will be more difficult to negotiate a framework contract with the supplier. The supplier will indeed not be prepared to offer special group terms if there is no corresponding obligation on the part of the group of customers to buy a certain number of units over a certain period of time. This depends on investment plans. These plans are often subject to modifications, owing to technical changes, etc., so that planning is extremely difficult, which makes coordination nearly impossible. Volume purchase agreements (further VPAs) can be signed, however, for smaller unit investments such as PC's or chromatographs, as planning is easier for them. Very often these VPA's offer different percentage discounts according to the volume of units purchased over a certain lapse of time.

This logic would explain the observed patterns for capital goods which are mostly bought by local buyers. The cooperate purchasing office will only exchange info with local units. The only exception is smaller equipment. Our respondents however stated important weaknesses of those VPA's for smaller equipment: (a) Since planning is rather uncertain, it is always possible that the group does not meet the volume promises which the coordinator would like to offer the suppliers. During the negotiation stage coordinators will therefore err on the side of caution and accept percentage discounts which reflect this pessimism and cautiousness. (b) Local affiliates will not always like those VPA's either. They might indeed be capable of closing more interesting deals with local dealers. Moreover, the link with local dealers is often necessary to ensure that services such as maintenance, financing terms, technical assistance, training of personnel, etc. are of an acceptable standard. The motivation of suppliers to offer good product support is often insufficient when they have to work with VPA's negotiated by other people. VPA's for production goods have however also an
important advantage over the price agreements which can be made for non-production goods. Discount percentages can indeed be applied to comparable, but not fully standardized, units.

The distinction also bears relevance to non-production goods. Insofar as use is made of similar production goods in the various affiliates (use for the same end products manufactured by the same process), there is an reasonable chance that standardization can be achieved. In such cases, it is extremely useful to attempt to draw up framework contracts in which uniform group prices are negotiated rather than discount agreements (i.e. a basic net ex-works price is negotiated).

The essential task of purchasing coordination regarding the less standardized non-production goods will be to make standardization proposals to the production managers and to quantify the commercial advantages of these proposals.

The greatest danger to these contracts lies in the continuing tendency of local buyers and dealers to go it alone and make their own agreements outside the scope of the group agreement. If this results in the group's failing to meet its volume requirements, everybody will have to put up with the disadvantages, or the supplier will no longer be willing to enter into agreements of this kind.

We can try to visualize the above stated hypothesed relationships in matrix format (see Figure 3).
### Figure 3. Different product types require different types of coordination.

<table>
<thead>
<tr>
<th></th>
<th>Production goods</th>
<th>Non production goods</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standardized</strong></td>
<td>• VPA with discount percentage agreements (e.g. minor equipment)</td>
<td>• Coordinated negotiations resulting in framework contracts with uniform basic ex-</td>
</tr>
<tr>
<td></td>
<td>• Local Systems Contracts (e.g. MRO)</td>
<td>work prices (e.g. raw materials, standardized components and packaging)</td>
</tr>
<tr>
<td><strong>Non-standard</strong></td>
<td>• Sometimes (but very infrequent) VPA with discount percentage agreements</td>
<td>• Standardization efforts</td>
</tr>
<tr>
<td></td>
<td>(e.g. major equipment)</td>
<td>• Sometimes coordinated negotiations leading to framework contracts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(e.g. non standard components and packaging)</td>
</tr>
</tbody>
</table>

Research is needed to further explore these relationships. The proposed matrix would certainly explain why relatively speaking there are far more group agreements for non-production goods than for production goods. This was demonstrated by Fraunfelter (1981, p.13). Of 31 companies having their head office in the United States, 35.4% had coordinated non-production goods, while only 22.4% had coordinated production goods. For Canada and Europe figures were 15% and 0.5% respectively.
Furthermore, research could also indicate whether other relationships between some of the stated coordination criteria might exist than those expressed by Figure 3.

4 COORDINATION AS A STRATEGIC WEAPON

The foregoing concerns primarily the application of coordination to reach a stronger negotiation position by pooling the volumes purchased in the various units. This is of course the most important, the ultimate strategic objective of purchasing coordination. But there are others, which will be clarified in this section, with the aid of a few examples. Companies involved are kept anonymous when the example would enable a competitor or supplier to benefit from the obtained information. Each case is used to illustrate and explain various strategic benefits.

(a) Preventing Mutually Incompatible Negotiating Strategies

Case A will make this clear.

The example is a raw material used for production of insecticides, for which a supplier had a monopoly some years ago. In order to break out of this monopoly, the largest user in an American group himself set up a potential second source in the Far East. The second source was asked to provide substantial quantities of this plant's intake (the largest) to encourage competition. The prices were identical to those of the first source. Unfortunately the loss of market share was not immediately perceived by the first supplier, because the total volumes used by the group showed a strong upward trend.

Two years ago this growth levelled off. The largest plant, together with a colleague from another subsidiary in Europe, whose consumption was lower, then decided to increase the pressure on the market. It was at that very moment that a buyer from a South-American affiliate declared during negotiations with the first supplier that he was still offering
the best terms. Of course, this weakened the negotiating power of all group members. It took eighteen months to convince a fourth plant in Central America not to order from the first source anymore before any credence could be attached to the competition argument, and at the cost of considerable extra transport expenses. The delay in the price cut, which has now been achieved, cost the group as a whole a total of 35,000 over two years. Clearly if they had realised sooner that the negotiating strategy had to be coordinated, they could have avoided this loss, and probably created a more competitive market with two bidders in much less than two years.

From this case we can conclude that in markets where supply is scarce or where only a limited number of suppliers are known or known to exist, multiplant customers need to be very careful in their individual plant negotiations with suppliers. Suppliers are very often far better informed about usage patterns and specific preferences in the different plants. Often, they have developed an information system between their various sales regions. As such they can take advantage of any slip of the tongue or deviation from group buying practices. In analogy, if buying companies through more efficient coordination efforts could set up a coordinated communication pattern, they will spot potential incompatibilities in plant buying strategies and prevent them from coming out into the open. One line of conduct will be shown to suppliers. They will more easily be played off against one another. Moreover, the unified market position taken will at the same time result in better conditions, more secure supply and a deeper insight into market structures. Both position power and knowledge power are enhanced.

(b) Preventing Affiliates from Depriving One Another of the Limited Available Resources in Times of Scarcity

In the supply the market is monopolistic in nature, the one and only supplier will easily be capable of playing individual buyers off against one another, especially if they don't have a
coordinated overview of the planning and size of the demand at group level. Suppliers in that case will use the "limited capacity argument" to increase market pressure on individual customers to become more profitable. A coordinated approach by a multiplant buying group will nullify this argument, allow the group to have an exact planning schedule of requirements and safeguard against excessive manipulation of the market by the unique supplier.

We will illustrate this situation with Case B.

The example is a raw material used intensively both in the production of refined chemicals and in the electronics industry. There were, and still are, only two suppliers, an American and a Japanese producer. The latter has limited capacity and is oriented towards its domestic market, with the surplus _only_ a few dozen containers a year available for export. The electronics application in particular has been expanding for some years now, and three years ago, the American producer, with this expansion in mind, decided to modernise and expand its production. In view of the highly corrosive properties of a number of materials used in the production process, this called for an investment in special equipment (glass boilers), with a consequent rise in prices. Knowing that its Japanese rival only exported a limited proportion of its production, the American producer mapped out a strategy aimed at creating an artificial scarcity for its customers in order to drive up prices and find the prior financing for its investments.

A relatively small user with plants in South America, Canada, the Netherlands and the UK, felt this as a body blow. At a given point in time, the Dutch purchaser found himself faced with an American salesman, who coolly informed him that he could not supply the required volume of several tons because the UK affiliate paid more. Two months later the same scene was played out in the UK. That was when the group first realised that joint planning of purchasing volumes was necessary. One internal customer
within the group was asked to handle the negotiations and consumption planning, and the supply market was informed in advance. Prices fell and the group saved 120,000 (an average of 11.5% of unit prices) as a result.

(c) Breaking out of Monopoly Situations Faster and More Efficiently

In both the above cases a second source played a leading role in generating major savings for the group. This is of course an obvious objective, which can be attained more easily and efficiently by coordination within the group. Creating second sources is one of the tasks that a number of purchasing coordination offices should carry out for the group, as is done at Upjohn and Estée Lauder, for example.

Case C is a case in point. It involves an agricultural raw material with a number of applications in the food industry. A major US supplier controls the world market, and the European producers are still not competitive owing to diseconomies of scale. In 1985 a European food manufacturing company succeeded in having a smaller Taiwanese producer jointly approved for its plants in Belgium, France and Italy for its applications, within a time span of 12 months. The procedure was speeded up by the exchange of test results. Without coordination, it would have taken 3 years. This meant that it was possible to negotiate larger group volumes with the Taiwanese producer two years earlier, leading to a price reduction of 35% as compared to the American supplier, who has ceased to be competitive, and recently gave up.

It is self-evident that the above strategic goals, which can be attained by coordination, are applicable to a very limited number of goods and services only. These are termed naturally strategic. In the literature, this term refers to the goods of which it is known that they either account for a considerable share of the cost price of the end product (e.g., the most important raw material), that they are important for the
presentation and saleability of the end product (e.g., glass bottles for certain soft drinks), or that they can only be supplied in accordance with the customer's specifications by certain suppliers (e.g., certain fatty acid modifications in the cosmetics industry).

This characteristic is one of the most important selection criteria in determining the purchases to be coordinated as a matter of priority. We would go so far as to say that for these items coordination is vital if one is to obtain commercially favourable terms and to have better control of the market. For less strategic purchases coordination is not vital. Buyers do not coordinate unless really significant savings can be made. Just how much these strategic objectives are in fact involved in purchasing coordination is shown by the title and the purpose of the coordination systems set up in recent years by both Upjohn and IBM.

*Upjohn* calls its project "GSGP", or Group Specifications Group Purchasing, which shows that the first strategic objective was to make sure that uniformity is sought between group affiliates.

*IBM* too has strategic reasons rather than price reasons for its purchasing centralization system. For example, one aim is for European affiliates to have one supplier of strategic components for all affiliates, in order to avoid duplication of development work and non-uniform standards and to achieve uniform quality. In the absence of this system one might never find suppliers willing to take the risk of investing in the necessary advanced technology and the quality requirements of the IBM group.

Furthermore, from each of the three above mentioned cases, we can also induce that coordination is a long-term effort if it aspires to generate strategic leverage.
5 DIFFERENT WAYS OF ORGANISING COORDINATION

The aim of this paragraph is to see how various groups of firms have structured the organisation of their centralization/coordination philosophy. In general, it can be stated that four possible types of coordination exist in practice:

- the principle of negotiations by the largest user or the user in the supplier's country of origin;
- the principle of centralized negotiations;
- the principle of different regional purchasing groups;
- the principle of profit-orientated purchasing centres which sell their services to the customers in the group.

We will now list the basic characteristics and some examples of each of these forms of organisation.

1) Negotiations by the largest user or the user in the suppliers country of origin.

His approach implies the assumption that the largest user knows the market best and has the most bargaining power within the group. The affiliate is then assigned the task of reaching agreements on behalf of the whole group. An alternative form is one in which the local unit in the supplier's country of origin negotiates. This alternative is sometimes chosen for practical reasons, such as communication in a little-known language, etc.

These alternatives can exist without an actual corporate purchasing staff, as long as the largest or local users, responsible for the coordination effort, organise regular meetings with their purchasing colleagues and keep them up to date. But it may also be that corporate buying offices have just delegated responsibilities to some local purchasing managers and keep organising the necessary exchange of information.
The first solution has been chosen by the Johnson & Johnson group in the United States, which has 18 Focused Buying Groups for Domestic Operations, each of which covers a group of related items. The rule for each group is that projects are dealt with on the basis of the largest user principle: the group's largest user negotiates for given items and projects for all group affiliates. DMC, a French textile group also applies this principle since 1990 in a "host buyer" system, organized by the corporate buying office. It thus applies the second solution.

2) Centralized negotiation

This approach works in the same way as the first form of coordination as a separate entity at headquarters does the negotiating. The calling up of the volumes is done by the local units whenever the need arises (Toyne and Rumpel 1978, p. 29-31).

The Spadel-Comidel group, a mineral and soft drinks company in Belgium, works on this principle for its four bottling plants in the country. The bottling plants call up volumes under centrally negotiated contracts and inform the purchasing coordinator of any changes in planning, so that amendments can be made to the centrally negotiated contract whenever necessary.

3) Regional purchasing groups

The principle of a regional purchasing group means that certain coordination packages are dealt with at various locations around the world in separate coordination efforts, without any consultation at a higher level. This solution very often reflects the necessity for multinational companies to setup regional buying offices, which serve as an antenna to organise supplier networks in various regions of the world (Yip and Lee, 1991).

IBM serves as an example of this organisation. IBM set up two major purchasing centres when it introduced its latest series. COMPEC (Component Procurement European
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Center) in Bordeaux, for Europe, and Corporate Component Procurement in Poughkeepsie, NY, for the US. A major strategic goal of both centres was to play a central role in contracting and joint development of computer components in the regional market. Safeguarding the procurement of chips and developing good technical relationships and joint quality development programming with suppliers are the main tasks.

In multinational companies applying global sourcing these procurement or buying offices are sometimes in competition with one another. The buying office which is able to propose the best worldwide deal will act as relay station to the supplier in its part of the world for all local plant buyers of the corporation.

As such, Siemens operates buying offices in North America, Singapore and Europe, competing with one another for global contracts together with suppliers in their network. At Ford, the system operates on plant level each plant can propose a supplier from its network for all global contracts. And the best one wins.

4) Profit-oriented centres

The principle of a profit-orientated purchasing centre can best be explained by reference to the way in which Unilever used to coordinate its European purchasing.

Each country in the Unilever group had a purchasing company which was a separate affiliate belonging to the group, fully answerable to national management for its own operating results. It could act as a purchasing department for the other operating company, but the operating companies themselves decided as to whether or not it was done that way. Therefore none of the operating companies was obliged to call on the services of the purchasing company. In the light of their responsibility for their final results, the operating companies therefore decided whether it was best for them to do their own purchasing or to call on
the purchasing company. The Unilever purchasing company therefore had to "sell" its services, in the true sense of the word, to several operating companies, and demonstrate that it "could do a better job".

In order to keep the unit active, the purchasing departments of the operating companies which did not subcontract were obliged before making any purchase to check whether the national purchasing company had developed a national purchasing contract. If such a contract existed, it had to be followed. In addition, the four directors of the national purchasing companies in France, Germany, the Netherlands and the UK formed a Central Purchasing Committee, whose task was to coordinate group purchasing strategy and to organise coordinated training and instruction for buyers. They met quarterly, and harmonised their purchasing visions of certain markets via price and lead time overviews. They then passed on these visions to their country of origin. Unfortunately, competition between the purchasing company and some independent buyers in some plants led to tension and even duplication of efforts and cost. The system was then given up.

This case illustrates the limits of internal competition and the fact that the strategic heritage is important. When the new approach is not compatible, coordination might have to be given up or another coordination type has to be chosen.

6 IMPLICATIONS

It was demonstrated that coordination of purchasing can increase the group's negotiation strength and lead to substantial strategic benefits if certain criteria are met. Different approaches of coordination and different situational contingencies have been proposed and combined.

It was also demonstrated that whenever coordination is attractive, the management of the implementation is as
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important as the formulation of an overall coordination strategy.

Purchasing management should be aware that the process towards coordination is slow and incremental. There are two main principles involved: the domino and the inertia principles. The domino principle stands for an internal marketing effort. Woodside and Samuel (1981) have also referred to such a necessary process. Once one affiliate of the group believes in the advantages, others will follow more easily. It will appear that once the first domino falls, the time to persuade the next one will be shorter. The final "domino" will be easy to convince. This refers to the principle of inertia. Once the train is moving, it is hard to stop. Positive results will lead to word-of-mouth among local purchasing agents.

The exchange of useful information on alternative supply sources, cost structures and development projects can create a positive atmosphere as well.

In a time of more cooperative bonds between strategic suppliers and customers, group planning can lead to mutual savings and logistics efficiency (Hensel 1980, p. 47). The buyer should persuade the strategic suppliers of these advantages. The suppliers' sales people can then act as promoters of the coordination idea within their customers' company, supporting the purchasing coordinators' efforts.

Industrial marketers should further respond to the increased coordination plans by their customers with increased coordination and planning at their side of the relationship as well. Powerful global account management seems a necessary condition for eliminating inconsistencies in the marketing approach towards several affiliates of a customer group.

This should not be interpreted as a call for the abolishment of local sales management. Quite on the contrary. Multilevel sales and marketing efforts, both on local affiliate and on group level, should support each other.
As such the purchasing coordinator can help both levels of marketers by explaining them organisational structures and the division of responsibilities within the customer group, by facilitating communication and by developing a clear argumentation for strategy coordination.

Hence, purchasing coordinator and account manager should build mutual understanding, trust and cooperation for a successful and mutually beneficial implementation of the concept of coordinated purchasing.

7. RESEARCH AGENDA

This paper described the usefulness of a subtle coordinated purchasing approach as a strategic weapon. At the same time, a contingency approach (figure 3) and different pragmatic implementation paths have been described. For researchers this paper offers several intriguing research questions:

1. Contradictory tendencies are reported concerning the future of purchasing coordination. A representative sample of multiplant companies should be involved in in-depth interviews probing for the contextual factors leading to a coordinated approach. This could be compared with what is actually happening in the field. This could present a more refined outlook on the future of supply coordination. It would also enable suppliers to evaluate whether global account management is an organisational step to be taken and under which circumstances.

2. Which types of coordination exist and in what form are they implemented? What are the implications for marketers (e.g. international coordination)? Do required relationship marketing skills change? What marketing and sales responses are ideal to match the purchasers' moves?

A study of pairs of suppliers and customers applying a coordinated purchasing approach is needed, preferably from a dynamic perspective.
This would enable the supply process to be depicted more specifically and step-wise. This way, insight may be given into the different barriers of entry a coordinated approach might present to suppliers.

3. Further empirical validation of the different coordination approaches for different types of products should be undertaken and other relations between the different coordination criteria in paragraph 3 have to be explored. In this case an active involvement by marketers in the research is important to see whether their strategies for different types of products are compatible with the presented coordination efforts of buyers.

4. Which approaches of coordination lead to the best result? One could, for instance, measure the satisfaction levels of buyers at both headquarters and subsidiaries as well as the types of measures adopted to improve internal as well as external coordination effectiveness. It might then be possible to link satisfaction to effectiveness measures. This could lead to guidelines for a coordinated purchasing approach.

5. Do buyer - seller relations intensify when marketers/account managers help ‘central’ buyers to persuade their affiliates to join coordinated buying plans? How do they realize this? Is the overall result positive for the supplier? An answer to these questions might also be relevant to researchers into network development and change over time. Does coordination really force buyers into different networks as the local ones they have established or just reinforces existing global ones? Which exit barriers exist for them? How and why do they enter new networks willingly?
APPENDIX: THE EXPLORATORY SURVEY

We have interviewed purchasing managers at both headquarters and plant level of 15 multinational industrial companies, having plants in at least 4 European countries. Interviews focused on the centralization-decentralization debate. We focused on cases in which coordination occurred. Criteria, pros and cons, strategic impact and operational aspects were reviewed for these cases. The coordination issues seem to be regarded by respondents as highly confidential. Therefore, due to reasons of secrecy, the companies or the products (or both) mentioned in the different cases have been disguised.
REFERENCES


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